



REQUEST FOR BID

Construction Services for Fire Alarm Upgrade - Planetarium & Liberal Arts at San Bernardino Valley College **BID # 01-1617-01**

BID RELEASED: 3/1/2018

Site Walk and Conference (mandatory): 10:00 A.M. PST on 3/9/2018

REQUESTS FOR INFORMATION DUE: 5:00 P.M. PST on 3/16/2018

PROPOSALS DUE: 11:00 A.M. PST on 3/23/2018

PROPOSALS PUBLICALLY OPENED: 11:01 A.M. ON 3/23/2018

Submit Requests for Information to:

Ernie Loera, SBCCD Facilities Project Manager

Email: eloera@sbccd.cc.ca.us

Submit Proposals To:

San Bernardino Community College District

ATTN: Ernie Loera, SBCCD Facilities Project Manager

114 South Del Rosa Drive, San Bernardino, CA 92408

Phone: 909.382.4032

Email: eloera@sbccd.cc.ca.us

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1.0 INSTRUCTION TO BIDDERS:

1.1. NOTICE FOR INVITING BIDS/PROPOSALS:

NOTICE IS HEREBY GIVEN that the San Bernardino Community College District, hereinafter referred to as "District", is calling for and will receive sealed Proposals for the award of a contract for the "**Construction Services for the Fire Alarm Upgrade at the Planetarium & Liberal Arts buildings located at San Bernardino Valley College (BID # 01-1617-01)**".

Proposals will be accepted up to but not later than, the time stated in Section 1.3 below.

License Required: California Contract License B or C-16.

1.2. PREQUALIFICATION REQUIREMENTS:

In compliance with the Resolution for the Districtwide Pre-Qualification Program for all Construction Projects adopted on August 13, 2015 by the District's Board of Trustees, prequalified contractors and subcontractors that have participated in the District's Prequalification Program and have received a prequalification approval status and can meet the specific scope of work and services requirements are hereby invited to submit their proposal for the project listed above.

To learn more about the Prequalification Program you can access this link: SBCCD/Facilities Planning/Prequalification

1.3. TIMELINE:

The anticipated timeline, subject to change, for the complete process is as follows:

Event	Tentative Date
BID Release – Response Window Opens:	03/01/2018
Site Walk and Conference (MANDATORY) – 10:00 a.m. PST	03/09/2018
Requests for Information Due – 5:00 p.m. PST	03/16/2018
Proposals Due – 11:00 a.m. PST	03/23/2018
Proposals Publically Opened – 11:01 a.m. PST	03/23/2018
Construction Contract subject to Board of Trustees approval	04/12/2018
Notice to Proceed issued	04/16/2018
Project Work Completion Deadline	08/10/2018

1.4. PROPOSAL SUBMISSION:

Proposal Submission Deadline: **11:00 a.m. on the 23rd day of March 2018.**

Place of Proposal Receipt: San Bernardino Community College District
114 S. Del Rosa Drive
San Bernardino, CA 92408

All proposals shall be made and presented only on the forms presented by the District and pursuant to the instructions set forth in this BID. Any proposals received after the time specified above, or after any extensions due to material changes, shall be returned unopened.

1.5. PRE-PROPOSAL INFORMATION:

There will be one scheduled Mandatory Site Walk and Conference. Attendance by a representative of the Contractor is MANDATORY for submitting a Proposal to this BID.

The MANDATORY Site Walk and Conference will be held on March 9, 2018 at 10:00 a.m. PST. Meeting Location will be in the gravel parking lot adjacent to Parking Lot 6, 701 S. Mount Vernon, San Bernardino, Ca. 92410. See attach [Exhibit I](#) for parking lot location.

1.6. PROJECT IDENTIFICATION & DESCRIPTION:

Construction Services for the Fire Alarm Upgrade at the Planetarium & Liberal Arts buildings located at San Bernardino Valley College (BID # 01-1617-01)”.

THE SCOPE OF WORK AND SERVICES INCLUDE:

- i. Provide labor, materials, equipment, insurance, bonds and any other items necessary to complete the scope of work outlined in these Construction documents. Exhibit D and E identifies the main scope of work. Also note, a Hazardous Material assessment has been performed and the report has been attached for reference in Exhibits F and G. If the scope of work outlined in Exhibits D & E are impacted by Hazardous Materials, it's the Contractors responsibility to have a licensed hazmat contractor under contract to perform work in these areas, thus eliminating the risk of releasing hazardous waste into the environment and work space. Note, total hazardous waste removal is not part of this scope, only remediation at locations where the Fire Alarm scope encounters such materials.

1.7. INQUIRIES:

Inquiries regarding the Project are to be directed to: **SBCCD Facilities Project Manager**; Ernie Loera, 114 South Del Rosa Dr, San Bernardino, CA 92408. All proposal documentation questions, concerns, and clarification requests shall be in writing and submitted via email to eloera@sbccd.cc.ca.us. All inquiries via writing shall be clearly identified as the Construction Services for “**Fire Alarm Upgrade at the Planetarium & Liberal Arts buildings BID # 01-1617-01**”.

All telephonic inquiries will be documented in writing. No Requests for Information will be accepted after 5:00 p.m. PST on March 16, 2018.

**1.8. DSITRICT'S VICE CHANCELLOR AUTHORITY:
DELEGATED BOARD AUTHORITY TO INCREASE AND DECREASE
CONTRACT TIME AND CONTRACT PRICE:**

The District's Board of Trustees has delegated authority to the District's Vice Chancellor for Fiscal Services to execute change orders, partial change orders, Construction Directives, and compromises, which may increase and/or decrease the Contract Price and/or may increase and/or decrease the Contract Time for this Project. As such, the Vice Chancellor for Fiscal Services' signature on a change order, partial change order, Construction Directive, and/or compromise is sufficient to bind the DISTRICT provided that the increased and/or decreased costs of individual changes do not exceed the amount specified in the applicable contract.

California Public Contract Code Sections 20651, 20655, and 20659, as revised in accordance with Section 22020, if applicable, or ten percent (10%) of the original contract price, whichever is greater. See the General Conditions for more specific information regarding the level of the Vice Chancellor for Fiscal Services signature authority.

1.9. EQUAL OPPORTUNITY EMPLOYMENT

The District is an equal opportunity employer. The District encourages the participation of minority, women, and disabled veteran businesses.

1.10. COMPLIANCE WITH PROPOSAL REQUIREMENTS

Each proposal must strictly conform with and be responsive to the contract documents as defined in the General Conditions.

The District reserves the right to reject any or all bids, and to waive any irregularities or informalities in any proposals or any requirements of these specifications as to bidding procedures.

1.11. SUBCONTRACTORS

Each bidder shall submit with its bid, on the form furnished with the contract documents, a list of the designated subcontractors on this Project as required by the Subletting and Subcontracting Fair Practices Act, California Public Contract Code Sections 4100 et. seq.

1.12. BID SECURITY

In accordance with California Public Contract Code Section 22300, the DISTRICT will permit the substitution of securities for any monies withheld by the DISTRICT to ensure performance under the contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the DISTRICT, or with a state or federally chartered bank as the escrow agent, who shall then pay such monies to the Contractor. Upon satisfactory completion of the contract, the securities shall be returned to the Contractor.

1.13. PUBLIC WORKS REFORMS (SB 854) REQUIREMENTS

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

1.14. PREVAILING WAGES REQUIREMENTS

The DISTRICT has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft, classification, or type of worker needed to execute the contract. These per diem rates, including holiday and overtime work, as well as employer payments for health and welfare, pension, vacation, and similar purposes, are on file at the DISTRICT, and are also available from the Director of the Department of Industrial Relations at; <http://www.dir.ca.gov/OPRL/PWD/index.htm>. Pursuant to California Labor Code Sections 1720 et seq., it shall be mandatory upon the Contractor to whom the contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the contract.

1.15. WITHDRAWAL OF BIDS

No bidder may withdraw any bid for a period of sixty (60) calendar days after the date set for the opening of bids.

1.16. BONDS

Separate payment and performance bonds, each in an amount equal to 100 % of the total contract amount are required, and shall be provided to the District prior to execution of the contract and shall be in the form set forth in the contract documents.

All bonds (Performance, and Payment) must be issued by a California admitted surety as defined in California Code of Civil Procedure Section 995.120.

1.17. TIMELY DELIVERY OF BIDS

It is each bidder's sole responsibility to ensure its bid is timely delivered and received at the location designated as specified above. Any bid received at the designated location after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.

1.18. CONSTRUCTION DEMOGRAPHICS AND LOCAL HIRE REPORTING:

The Contractor will be required to submit monthly demographics/local hire work force and payment summaries with each progress payment. The District is requiring the General Contractor to provide monthly reporting of workforce utilized on the project, separated by subcontract. In addition, the District will require monthly payment summaries corresponding to each employee wages, subcontractor progress payments and General Contractor payments. Furthermore, the General Contractor will be required to provide all local wages for local residents as shown on certified payroll, subcontract values, subcontractor payments differentiated by local vs. non-local. See Exhibit K for required monthly reporting forms.

2.0 DISTRICT PROFILE

The District was established in 1926 and serves most of the County of San Bernardino and a small portion of the County of Riverside. The District includes two comprehensive community colleges: San Bernardino Valley College and Crafton Hills College, a Professional Development Center, and KVCR-TV and FM. The District employs approximately 800 full-time permanent faculty and staff and approximately 600 part-time faculty, and have approximately 17,000 students enrolled in one or more courses during the 2015 Spring Semester.

3.0 PROJECT MANAGER AND PRIMARY CONTACT

Ernie Loera is the District's Facilities Project Manager for this project.
Phone: (909) 382-082;
Email: eloera@sbccd.cc.ca.us

4.0 BID EXHIBITS:

- 4.1 EXHIBIT A – BID FORMS**
- 4.2 EXHIBIT B – GENERAL CONDITIONS**
- 4.3 EXHIBIT C – PROJECT SPECIFICATIONS**
- 4.4 EXHIBIT D – PROJECT DRAWINGS – SCOPE OF WORK**
- 4.5 EXHIBIT E – PROJECT TECHNICAL SPECIFICATIONS – SCOPE OF WORK**
- 4.6 EXHIBIT F – HAZARDOUS MATERIAL SPECIFICATIONS**
- 4.7 EXHIBIT G – HAZARDOUS MATERIAL SURVEY REPORT**
- 4.8 EXHIBIT H – SUPPLEMENTAL CONDITIONS**
- 4.9 EXHIBIT I – JOB WALK PARKING LOCATION**
- 4.10 EXHIBIT J – AS-BUILTS DRAWINGS – Reference Only**
- 4.11 EXHIBIT K – DEMOGRAPHICS REPORTING**
- 4.12 EXHIBIT L - AGREEMENT FORMS**
- 4.13 EXHIBIT M – ACADEMIC CALENDAR**
- 4.14 EXHIBIT N – LIBERAL ARTS FINISH UPGRADES PROJECT SCOPE –
REFERENCE ONLY – **NOT IN CONTRACT FOR FIRE ALARM PROJECT****
- 4.15 EXHIBIT O – SBVC AS-BUILT UTILITY DRAWING – Reference Only**

END OF REQUEST FOR PROPOSAL

EXHIBIT A

SECTION 00 30 01 – BID PROPOSAL FORM

PROPOSAL FOR: FIRE ALARM UPGRADE FOR PLANETARIUM AND LIBERAL ARTS BUILDINGS @ SBVC RFP 01-1617-01

TO: San Bernardino Community College District, acting by and through its Governing Board, herein called "DISTRICT."

RE: (BIDDER): _____

1. Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the contract, the local conditions affecting the performance of the contract and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated, the contract, including all of its component parts, and everything required to be performed, including its acceptance by the DISTRICT, and to provide and furnish any and all labor, materials, tools, expendable equipment, utility and transportation services, and California sales and other applicable taxes, permits, licenses and fees required by the agencies with authority in the jurisdiction in which the work will be located necessary to perform the contract and complete all of the work in a workmanlike manner required in connection with the work required by this bid proposal, for the **Fire Alarm Upgrade for Planetarium and Liberal arts buildings @ SBVC** described above, all in strict conformance with the drawings and other contract documents on file at the Purchasing Office of said DISTRICT for amounts set forth herein.
2. ADDENDA: The undersigned has thoroughly examined any and all Addenda (if any) issued during the bid period and are thoroughly familiar with all contents thereof and acknowledges receipt of the following Addenda: (Bidder to list all addenda).

ADDENDUM NO. _____	DATE RECEIVED _____
ADDENDUM NO. _____	DATE RECEIVED _____
ADDENDUM NO. _____	DATE RECEIVED _____

3. BASE BID

Base Bid shall include all costs required to perform the work as required by the contract documents and as may be expanded and/or reduced by Addenda.

The bidder agrees to perform all work required for this BID Proposal for the lump sum (turn-key) of:

a. BASE BID:

_____ Dollars
 (In words printed or typed)

\$ _____ (In figures)

b. BID ALLOWANCE:

BID ALLOWANCE	DESCRIPTION	VALUE (\$)
ALLOWANCE NO. 01	Unforeseen Conditions and Not Included in the Scope of Work	\$10,000.00

Allowance Subtotal \$ 10,000.00

Ten Thousand Dollars

c. TOTAL BID (Base Bid + Bid Allowance):

_____ Dollars
(In words printed or typed)

\$ _____ (In figures)

Total bid amount shall include the base bid amounts and total package allowances, if any. The lowest responsive bid shall be determined based on the sum of the base bids and allowances.

4. The undersigned bidder shall be licensed and shall provide the following information:

Bidder's California Contractor's
License Number: _____
License expiration date: _____
Name on License: _____
Type of License: _____

If the bidder is a joint venture, each member of the joint venture must include the above information.

5. The names and contact information of all persons interested in the foregoing proposal as principals are as follows:

(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state the legal name of such corporation, as well as the names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state the true names of the firm, as well as the names of all individual co-partners comprising the firm; if bidder or other interested person is an individual, state the first and last names in full.)

6. Notice of Intent to Award Contract or other correspondence should be addressed to the undersigned at the address stated below.

-
-
7. ATTACHED TO THIS BID LETTER: Attached to this bid letter and by this reference incorporated herein and made a part of these completed Contract Bid Forms are:

<u>Name of Form/Document</u>	<u>Section Number</u>
<input type="checkbox"/> Bid Proposal Form	Section 00 30 01
<input type="checkbox"/> Designation of Subcontractors	Section 00 30 04
<input type="checkbox"/> Non-Collusion Declaration (Notarized)	Section 00 30 05
<input type="checkbox"/> Contractor's Certification Regarding Worker's Compensation	Section 00 30 06
<input type="checkbox"/> Acknowledgement of Bidding Practices Regarding Indemnity	Section 00 30 07
<input type="checkbox"/> Bidder's Acknowledgement of Project Duration	Section 00 30 08
<input type="checkbox"/> Site Visit Certification	Section 00 30 09

8. TIME FOR COMPLETION: The DISTRICT may give a notice to proceed within thirty (30) days of the award of the bid by the DISTRICT. Once the CONTRACTOR has received the notice to proceed, the CONTRACTOR shall complete the work in the time specified in the Agreement.

In the event that the DISTRICT desires to postpone giving the notice to proceed beyond this thirty (30) day period, it is expressly understood that with reasonable notice to the CONTRACTOR, the DISTRICT may postpone giving the notice to proceed. It is further expressly understood by the CONTRACTOR, that the CONTRACTOR shall not be entitled to any claim of additional compensation as a result of the postponement of giving the notice to proceed.

If the CONTRACTOR believes that a postponement will cause a hardship to it, the CONTRACTOR may terminate the contract with written notice to the DISTRICT within ten (10) days after receipt by the CONTRACTOR of the DISTRICT's notice of postponement. It is further understood by the CONTRACTOR that in the event that the CONTRACTOR terminates the Contract as a result of postponement by the DISTRICT, the DISTRICT shall only be obligated to pay the CONTRACTOR for work performed by the CONTRACTOR at the time of notification of postponement. Should the CONTRACTOR terminate the contract as a result of a notice of postponement, the DISTRICT shall have the authority to award the contract to the next lowest responsible bidder.

9. It is understood that the DISTRICT reserves the right to reject any or all bids and/or waive any irregularities or informalities in this bid or in the bid process. The CONTRACTOR understands that it may not withdraw this bid for a period of ninety (90) days after the date set for the opening of bids.
10. The required List of designated subcontractors is attached hereto.
11. The required notarization: Non-Collusion Declarations for CONTRACTOR, *and the Non-Collusion Declarations for* subcontractors are attached hereto.
12. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the

DISTRICT a contract in the form attached hereto in accordance with the bid as accepted and prepared by Owner, and that he will also furnish and deliver to the DISTRICT the Performance Bond and Payment Bond, all within ten (10) calendar days after receipt of notification of award, and that the work under the contract shall be commenced by the undersigned bidder, if awarded the contract, by the start date provided in the DISTRICT's Notice to Proceed, and shall be completed by the CONTRACTOR in the time specified in the contract documents.

13. Time is of the essence regarding this contract, therefore, in the event the bidder to whom the Notice of Intent to Award Contract is given fails or refuses to post the required bonds and return executed copies of the Agreement form within ten (10) calendar days from the date of receiving the Notice of Intent to Award Contract, the DISTRICT may declare the bidder's bid deposit or bond forfeited as damages.
14. Pursuant to Government Code section 4552, in submitting a bid to the DISTRICT, the bidder offers and agrees that if the bid is accepted, it will assign to the DISTRICT all rights, title, and interest in, and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Business and Professions Code sections 16700, et. seq.), arising from the purchase of goods, materials, or services by the bidder for sale to the DISTRICT pursuant to the bid. Such assignment shall be made and become effective at the time the DISTRICT tenders final payment to the bidder.
15. The bidder declares that he/she has carefully examined the location of the proposed work, that he/she has examined the Plans, General Conditions of the contract, Supplemental Conditions of the contract, and Specifications, and read the accompanying instructions to bidders, and hereby proposes and agrees, if this proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the Plans, General Conditions of the contract, Supplementary Conditions of the contract, and Specifications, in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Bid Form.
16. In the event of ambiguity due to a conflict between words and numbers with respect to the amount of the bid, words shall govern over numbers.
17. The bidder is familiar with Government Code sections 12650, et. seq., and Penal Code section 72 and understands that false claims can lead to imprisonment.
18. The bidder acknowledges that that they have reviewed the work outlined in the contract documents and fully understands the Scope of work required in the Proposal, and further acknowledges that this proposal includes the scope of work within this Bid Proposal. It is further understood that no exceptions, exclusions, or clarifications will be considered.
19. The undersigned has notified the District through the Project Manager of any discrepancies or omissions, or of any doubt about the meaning of any of the Contract Documents, and has contacted the District before bid date to verify the issuing of any clarifying Addenda.

I, the below-indicated bidder, declare under penalty of perjury that the information provided and representations made in this bid are true and correct.

Proper Name of Bidder

Address

By: _____
Signature of Bidder

Date: _____

Corporate Seal:
(If Corporation)

NOTE: *If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.*

All signatures must be made in permanent blue ink

END OF SECTION

SECTION 00 30 04 – DESIGNATION OF LISTED SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code sections 4100 et. seq.) and any amendments thereof, each bidder shall set forth below: (a) the name, license number, and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor, who will perform work or labor or work or improvement to be performed under this contract, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvements according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent of the Contractor's total bid; and (b) the portion and description of the work which will be done by each subcontractor under this Act. The Contractor shall list only one subcontractor for each such portion as is defined by the Contractor in this bid.

If a Contractor fails to specify a subcontractor, or if a Contractor specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the Contractor's total bid, the CONTRACTOR shall be deemed to have agreed that the CONTRACTOR is fully qualified to perform that portion, and that the CONTRACTOR alone shall perform that portion.

No Contractor whose bid is accepted shall (a) substitute any subcontractor, (b) permit any subcontractor to be voluntarily assigned or transferred or allow the relevant portion of the work to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the Contractor's total bid where the original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

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

NOTE: If alternate bids are called for and bidder intends to use different or additional subcontractors on the alternates, a separate list of subcontractors must be provided for each such alternate.

LIST SUBCONTRACTORS ON THE FOLLOWING PAGE.

DESIGNATION OF SUBCONTRACTORS FORM

Description & Portion of Work	Name of Subcontractor & CSLB Number	City of Place of Business	Certifications

DATED: _____
Proper Name of Bidder

By: _____

(Signature of Bidder)

Address: _____

Phone: _____

**SECTION 00 30 05 - NON-COLLUSION DECLARATION TO BE EXECUTED BY
BIDDER AND SUBMITTED WITH BID**
(Public Contract Code section 7106)

The undersigned declares:

I am the [INSERT NAME OF President] of [insert name of company], the party making the foregoing bid.

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

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

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

Signature

Print Name

END OF SECTION

**SECTION 00 30 06 – CONTRACTOR’S CERTIFICATE REGARDING WORKERS’
COMPENSATION**

Labor Code section 3700 in relevant part provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

1. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.
2. By securing from the Director of Industrial Relations a certificate of consent to self-insure which may be given upon furnishing proof satisfactory to the Director of Industrial Relations, of ability to self-insure and to pay any compensation that may become due to employees.

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

Proper Name of Bidder: _____

By: _____

Signature

Date

In accordance with Article 5 (commencing at section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body before performing any work under this contract.

END OF SECTION

SECTION 00 30 08 – ACKNOWLEDGMENT OF BIDDING PRACTICES

TO: San Bernardino Community College District
114 S. Del Rosa Drive
San Bernardino, CA 92408

RE: Construction Contract for **Fire Alarm Planetarium & Liberal Arts Upgrade @ SBVC RFP 01-1617-01**

Please be advised that with respect to the above-referenced Project, the undersigned CONTRACTOR, on behalf of itself and all subcontractors, hereby waives the benefits and protection of Labor Code section 3864, which provides:

“If an action as provided in this chapter is prosecuted by the employee, the employer, or both jointly against the third person results in judgment against such third person, the employer shall have no liability to reimburse or hold such third person harmless on such judgment or settlement in the absence of a written agreement to do so executed prior to the injury.”

This Agreement has been signed by an authorized representative of the contracting party and shall be binding upon its successors and assignees. The undersigned further agrees to promptly notify the DISTRICT of any changes of ownership of the contracting party or any subcontractor while this Agreement is in force.

Contracting Party

Name of Agent/Title

Date

END OF SECTION

SECTION 00 30 09 – ACKNOWLEDGEMENT OF PROJECT DURATION

Construction Milestones and Constraints: shall be defined to include all scopes of work, including but not limited to:

MILESTONES:

The **Fire Alarm upgrade project** will require the project to be 100% complete including all field work, testing, substantial completion, and punch list no later than August 10, 2018 as stated in the contract agreement.

NTP:

- 1- **Submittals and Material Procurement – Start April 16, 2018 – End May 29, 2018 - (43 Calendar Days) issued after District Board Approval and execution of the contract.**
- 2- **Construction (73 Calendar Days) – Must start on May 29, 2018 and must be completed no later than August 10,2018.** Shall consist of all general requirements, including but not limited to required surveys, submittals, deferred approvals, permits and approvals, pre-construction meetings and activities, site walks, long lead procurement requirements, hall off, installation, operation, final cleaning and complete contract scope of work as defined in the project documents by **August 10,2018..**
- 3- **DSA and Project Closeout – Start August 10, 2018 and complete no later than September 9, 2018 (30 Calendar Days).** Shall consist of submission and approval of closeout items such as warranties, O&M manuals, Record Drawings and DSA closeout documentation.

CONSTRAINTS:

- A. As set forth in General Conditions Specification Section 00 40 00 (Exhibit B), and Project Specifications (Exhibit C, D and E) Construction Schedule Specification Section 01 32 16 (Exhibit C) and Supplemental Conditions (Exhibit H).
- B. **Site coordination with other District’s vendors, contractor, suppliers and installers working on at the Liberal Arts Finish Upgrades Project.**

DURATIONS:

Submittals and Material Procurement – 43 calendar days

Construction Complete – 73 calendar days

DSA and Project Closeout – 30 calendar days

Total Project Contract Duration – 146 calendar days

The undersigned acknowledges that he/she has carefully and thoroughly reviewed the Project Schedule Specification Section and Project Durations and fully understands the scheduling and manpower requirements necessary to complete the project in accordance with the Project Durations, Contractor agrees to furnish all labor, materials and equipment necessary, upon District acceptance of bidder’s proposal, to fully comply with this duration requirement.

ACKNOWLEDGEMENT OF PROJECT DURATIONS

00 30 08 - 1

The undersigned agrees to comply with any and all requirements to schedule, to ensure project completion as stipulated in the Contract Documents.

ACKNOWLEDGED AND AGREED:

DATE: _____

CONTRACTOR

By: _____
(Signature)

(Typed Name)

(Title)

END OF SECTION

SECTION 00 30 09 – CONTRACTOR’S CERTIFICATION OF SITE CONDITIONS

I certify that I have visited the Project site, and I have had all others that I deem required visit the Project site, of the proposed Project and Work. We have fully acquainted ourselves with the conditions of the Project site, as well as those relating to the construction and labor for the Project, and we fully understand the facilities, difficulties, and restrictions, which may impact the total and adequate completion of the Project.

I agree to fully defend, indemnify and hold harmless the Owner, Project Manager, Architect, Inspectors and their directors, officers, employees, agents and volunteers from any damages, costs, expenses or omissions related to conditions that could or should have been identified during my visit to the site, and/or had I undertaken an investigation thereof.

I agree and to fully coordinate with other District’s vendors, contractors, suppliers and installers working on *projects associated with the Liberal Arts Finish Upgrades project.*

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

Bidder

Signature

Typed or Printed Name

Title

END OF SECTION

EXHIBIT B

Section 00 40 00

General Conditions

San Bernardino Community College District

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ARTICLE 1

1.1 BASIC DEFINITIONS

Action of the Governing Board is a vote of a majority of the District's governing board.

Addenda mean written errata, interpretation and revisions to the Bid Documents issued by the District before opening of the Bids.

Approval means written authorization through action of the governing board. However, the DISTRICT'S Governing Board has delegated authority to the DISTRICT'S Vice Chancellor for Fiscal Services to execute change orders, partial change orders, and Construction Directives which increase and/or decrease the Contract Price and/or increase and/or decrease the Contract Time for this Project. As such, the Vice Chancellor for Fiscal Services' signature on a change order, partial change order, and Construction Directive is sufficient to bind the DISTRICT provided that the Vice Chancellor for Fiscal Services' delegated authority is limited to approving increased and/or decreased costs of individual changes that do not exceed the amount specified in the applicable California Public Contract Code Sections 20118.4, 20651, 20655, 22032(a), as revised in accordance with Section 22020, if applicable, or ten percent (10%) of the original contract price, whichever is greater.

Architect means the architect, engineer, or other design professional engaged by the District to design and perform general observation of the work of construction and interpret the drawings and specifications for the Project.

As shown, as indicated, as detailed refer to drawings accompanying this specification.

Bid means the written offer of a Bidder (when submitted on the approved bid form) to furnish the necessary materials and to perform the Work in accordance with the Bid Documents.

Bid Security means the certified check, cashier's check or a Bid Bond accompanying the Bid submitted by the Bidder, as a guarantee that the Bidder will enter into the Contract with the District for the performance of the Work and will furnish acceptable bonds and insurance if the Contract is awarded to the Bidder.

Bidder means an individual, firm, partnership, corporation or combination thereof, submitting a proposal for the Work contemplated, acting directly or through a duly authorized representative.

Campus Operations means all services; facilities; utilities; functions; events; and all administrative, academic, instructional, public safety, life/fire/safety, construction, and/or maintenance efforts and operations, conducted by or on behalf of the DISTRICT, or conducted with the DISTRICT'S permission on DISTRICT property. Contractor and those performing by, through and/or under the Contractor, shall not affect, in any way, any Campus Operations in the performance of the Contract. Contractor is required to include in its bid any and all costs to perform as required by the Contract without affecting, in any way, any Campus Operations. If Contractor believes that the performance required by the Contract will affect, in any way, any Campus Operations, Contractor shall immediately notify the Project Manager in writing specifically stating what must be done and how it may/will affect any Campus Operation(s). Contractor shall not perform Work that affects any Campus Operations without express written permission from the DISTRICT'S Vice Chancellor for

GENERAL CONDITIONS

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Fiscal Services. This does not mean that Contractor can stop performing as required by the Contract, rather Contractor is required to perform said Work in such a manner and at such times so as not to affect, in any way, Campus Operations, all at no extra cost or expense, of any kind, to the DISTRICT.

Change Order (“CO”), Partial Change Order (“PCO”) and a Compromise means a written instrument prepared by the Project Manager and signed by the District, Contractor, Project Manager, and Riverside County (Planning and Engineering Department) stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Price/Sum, if any; and (3) the extent of the adjustment in the Contract Time, if any.

Construction Directive (“CD”) means a written instrument prepared by the Project Manager and signed by the DISTRICT’S Vice Chancellor for Fiscal Services directing the Contractor regarding: (1) a change in the Work; (2) directing the Contractor to proceed in a specific manner; (3) the amount of adjustment in the Contract Price/Sum, if any; and/or (4) the extent of the adjustment in the Contract Time, if any. The DISTRICT’S Project Manager is authorized to issue Construction Directives, however, unless signed by the DISTRICT’S Vice Chancellor for Fiscal Services, a Construction Directive issued by the Project Manager and not signed by the DISTRICT’S Vice Chancellor for Fiscal Services, is not binding on the DISTRICT to increase and/or decrease the Contract Price/Sum and/or Contract Time.

Contract or Agreement mean all of the Contract/Construction Documents for the Project. The Contractor’s signing of the Contract signifies its acceptance of the time of completion as being sufficient for completion of the Work, as well as acceptance of all of the other terms and conditions of the Contract/Construction Documents. Contractor acknowledges that it has read every clause in the Agreement, these conditions, and the specifications; has examined the location where the Work is to be done; and has made all inquiries and investigation necessary to enable it to understand thoroughly the intent of all parts of the Contract/Construction Documents, and the nature of the Work; and agrees that it will not make any claim for compensation, extension of time or other allowance of any sort, based upon or arising out of any alleged misunderstanding by it of any part of the Contract documents.

General Contractor, Contractor, District, Program Manager, Project Manager and Architect are those mentioned as such in the Agreement. They are treated throughout the Contract/Construction Documents as if they are of singular number and neuter gender. Any reference to “Owner” shall mean “District”. The term, “Contractor” and “General Contractor” are each references to the other term. These terms are used interchangeably in the course of the Contract/Construction Documents.

Contract Sum/Price is stated in the Contract and, includes authorized adjustments pursuant to Change Orders, Partial Change Orders, and/or Construction Directives and is the total amount payable by the District to the Contractor for performance of the Work under the Contract.

Contract Time, unless otherwise provided, is the period of time, including authorized adjustments, allotted in the Contract for Completion of the Work

Days mean calendar days.

Drawings are graphic and pictorial portions of the Contract/Construction Documents prepared for the Project and approved changes thereto, wherever located and whenever issued, showing the design, location, and scope of the Work, generally including plans, elevations, sections, details, schedules, and diagrams as drawn or approved by the Architect.

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Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood,

earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

Equal/Equivalent means a product, service, component or system which is demonstrated, through the submittal process, to the satisfaction and specific approval of the District or its designee to be equal to the product, service, component or system specified as set forth in these Contract.

Equipment is a general term which refers to vehicles, systems, assemblies, sub-assemblies, products, material, fittings, devices, appliances, fixtures, apparatus, supplies and the like used in the performance of a specific function or functions or Contract obligation.

Extra Work means work of which the performance or compensation thereof is not otherwise provided for in the Contract, but found by the Owner to be necessary or desirable to the satisfactory completion of this Contract and within its intended scope.

Inspector of Record is the individual retained by the District in accordance with titles 21 and 24 of the California Code of Regulations and who will be assigned to the Project.

Locality in which the work is performed means the county in which the Project is located.

Modification(s) means a written amendment to the Contract signed by parties, a Change Order, a Partial Change Order, a Construction Directive, a Compromise, or a written order for a minor change in the Work issued by the Architect.

Notice to Proceed means a written notice from the Owner to Contractor to proceed with the Work by a specified date.

Program Manager means the firm or individual retained by the District to manage all aspects of the Measure 'M' Capital Improvement Program as an extension of the District's staff.

The Project is the complete construction of the Work performed in accordance with the Contract/Construction Documents.

Project Manager for the Project will be Kitchell/BRj. The Project Manager will be the District Representative during construction of the Project and will assist the District in the administration of the contract. All instructions from the District to the Bidders (and to the Contractor, when the contracts are awarded) shall be directed through the Project Manager. The Project Manager's address is 11715 Sand Canyon Road, Yucaipa, CA 92399.

The Project Manual means the volume assembled for the Work which may include, without limitation, the bidding requirements, sample forms, Conditions of the Contract, and Specifications.

Provide shall include "provide complete in place," that is "furnish and install."

Project Schedule The "Project Schedule" is the schedule produced by the General Contractor of the combined itemized CPM schedules activities to complete the scope of work within the Bid Documents.

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General Contractor shall staff the project sufficiently to maintain the project schedule durations and milestones. The schedule will be monitored and tracked by the General Contractor and submitted for review monthly to the Project Manager.

Reference Standards for Material, Equipment, Work, procedures or workmanship established by reference to standards or procedures published in a described reference text. Referenced Standards shall have the same force and effect as if they are physically incorporated in the Contract.

Regular Work Day consists of eight hours as required under Section 1810 of the California Labor Code.

Safety Orders are those issued by any cognizant city, county, state or federal agency.

Site refers to the grounds of the Project as defined in the Contract Documents and such adjacent lands as may be directly affected by the performance of the Work.

The Specifications are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services.

Substantial Completion of the Work: unless defined differently in the Supplemental Conditions, the phrase means, that point in the progress of the Work where the Work is completed according to the requirements of the Contract Documents so that the District can occupy, have beneficial use of, and enjoy, the entire Project for its intended purpose; and where only minor and/or trivial defects in the Work remain that do not preclude the District occupying, having beneficial use of, or enjoying the entire Project for its intended purpose.

Standards, Rules, and Regulations referred to are recognized printed standards and shall be considered as one and a part of these specifications within limits specified. Federal, state and local regulations are incorporated into the Contract Documents by reference.

Subcontractor(s), as used herein, includes those having direct or indirect contracts with Contractor and one who furnishes labor, services, materials, products, equipment, supplies, apparatus, and the like, or one who furnishes services for a special design according to plans, drawings, and specifications of this Work. The definition includes all persons and/or entities that are entitled to file a Stop Notice on the Project under applicable law.

Surety is the person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond.

Work of the Contractor or Subcontractor shall include all labor, services, materials, products, equipment, supplies, apparatus, and the like, necessary for the Contractor to fulfill all of its obligations pursuant to the Contract Documents. It shall include the initial obligation of any Contractor or Subcontractor who performs any portion of the Work, to visit the Site of the proposed Work (a continuing obligation after the commencement of the Work), to fully acquaint and familiarize itself with the conditions as they exist and the character of the operations to be carried out under the Contract Documents, and make such investigation as it may see fit so that it shall fully understand the facilities, physical conditions, and restrictions attending the Work under the Contract Documents. Each such Contractor or Subcontractor shall also thoroughly examine and become familiar with the Drawings, Specifications, and associated bid documents before preparing and submitting any bid.

GENERAL CONDITIONS

Workers include laborers, workers, and mechanics.

1.2 **EXECUTION, CORRELATION AND INTENT**

1.2.1 **Correlation and Intent**

1.2.1.1 Documents Complementary and Inclusive. The Contract Documents are complementary and are intended to include all items required for the proper execution and completion of the Work. All Contract Documents form the Contractor's contract with the District. Any item of Work mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be provided by Contractor as if shown or mentioned in both.

1.2.1.2 Coverage of the Drawings and Specifications. The Drawings and Specifications generally describe the Work to be performed by Contractor. Generally, the Specifications describe Work which cannot be readily indicated on the Drawings and indicate types, qualities, and methods of installation of the various materials and equipment required for the Work. It is not intended to mention every item of Work in the Specifications, which can be adequately shown on the Drawings, or to show on the Drawings all items of Work described or required by the Specifications even if they are of such nature that they could have been shown. All materials or labor for Work, which is shown on either the Drawings or the Specifications (or is reasonably inferable there from as being necessary to complete the Work), shall be provided by the Contractor to provide a complete Project. It is intended that the Work be of sound, quality construction, and the Contractor shall be responsible for the inclusion of adequate amounts to cover installation of all items indicated, described, or implied in the portion of the Work to be performed by them.

1.2.1.3 Conflicts. In the event there is a discrepancy between the various Contract Documents, it is intended that the more stringent, higher quality, and greater quantity of Work shall apply. All conflicts in the Contract Documents shall be reported to the Project Architect through the Project Manager before proceeding with work affected.

1.2.1.4 Division of Plans and Specifications. All sections of the specification shall be read and interpreted as constituting a whole and not as an aggregation of individualized parts, and whatever is specified in one section shall be construed as applying to all sections.

1.2.1.5 Conformance With Laws. Each and every provision of law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein, even if through mistake or otherwise any such provision is not inserted, or is not correctly inserted.

Before commencing any portion of the Work, Contractor shall check and review the Drawings and Specifications for such portion for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public and municipal utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other special requirements, if any, designated in the Contract Documents. Such checking shall include Title 21 and Title 24 of the California Code of Regulations, California Building Code, local utility, local water connection, local grading and all other applicable agencies. In the event Contractor observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with the Contract

GENERAL CONDITIONS

Documents, Contractor shall, within three (3) days, notify Architect, Project Manager, Program Manager and District in writing of same and shall ensure that any such violation or inconsistency shall be corrected in the manner provided hereunder prior to the construction of that portion of the Project.

The Contractor shall bear all expenses of correcting Work done contrary to said laws, ordinances, rules, and regulations if the Contractor performed same (1) without first consulting the Architect for further instructions regarding said Work or (2) disregarded the Architect or Project Manager's instructions regarding said work.

1.2.1.6 Ambiguity and Inconsistency. Before commencing any portion of the Work, Contractor shall carefully examine all Drawings and Specifications and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall, within three (3) days, notify Architect, Project Manager, Program Manager and District in writing of any perceived or alleged error, inconsistency, conflict, ambiguity, or lack of detail or explanation in the Drawings and Specifications in the manner provided herein. If the Contractor or its Subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract Documents, which it knows or should have known to be in error, inconsistent, or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all costs arising there from including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the time for performance. If Contractor performs, permits, or causes the performance of any Work under the Contract Documents prepared by or on behalf of Contractor which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction, without increase to or adjustment in the Contract Price or the time for performance.

1.2.2 Addenda and Deferred Approvals

1.2.2.1 Addenda are the changes in specifications, drawings, contract documents, and plans which have been prepared by the Architect and authorized in writing by the District and which alter, explain, or clarify the contract documents. Addenda shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda unless otherwise specified in the addenda.

1.2.2.2 Deferred Approvals. Contract Documents which require deferred approval items are meant to be for illustration purposes only. Contractor is responsible for all deferred approval requirements set forth in the Contract Documents. Contractor is responsible to comply with all laws, building codes, and regulations necessary to obtain all necessary approvals, including those required from the Riverside County (Planning and Engineering Department) and the State Fire Marshal. Contractor shall not be granted an extension of time for failure to obtain necessary approvals due to failure to comply with laws, building codes, and other regulations (including Title 24 of the California Code of Regulations). Contractor shall schedule all deferred approval items in its progress schedule pursuant to Article 3. If Contractor fails to include deferred-approval items in its schedule which results in a critical path delay, then Contractor shall be subject to the assessment of liquidated damages.

1.2.3 Specification Interpretation

1.2.3.1 Titles. The Specifications are separated into titled sections for convenience only and not to dictate or determine the trade or craft involved.

1.2.3.2 As Shown, Etc. Where "as shown," "as indicated," "as detailed," or words of similar import are used, reference is made to the Drawings accompanying the Specifications unless otherwise stated. Where "as directed," "as required," "as permitted," "as authorized," "as accepted," "as selected," or words of similar import are used, the direction, requirement, permission, authorization, approval, acceptance, or selection by Architect is intended unless otherwise stated.

1.2.3.3 General Conditions. The General Conditions, and the Supplemental Conditions if any, are a part of each and every section of the Specifications.

1.2.3.4 Abbreviations. In the interest of brevity, the Specifications are written in an abbreviated form and may not include complete sentences. Omission of words or phrases such as “Contractor shall,” “shall be,” etc., are intentional. Nevertheless, the requirements of the Specifications are mandatory. Omitted words or phrases shall be supplied by inference in the same manner as they are when a “note” occurs on the Drawings. In the interest of brevity, the Contract Documents frequently omit modifying words such as “all” and “any” and articles such as “the” and “an,” but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

1.2.3.5 Plural. Words in the singular shall include the plural whenever applicable or the context so indicates.

1.2.3.6 Metric. The Specifications may indicate metric units of measurement as a supplement to U.S. customary units. When indicated thus: 1” (25 mm), the U. S. customary unit is specific, and the metric unit is nonspecific. When not shown with parentheses, the unit is specific. The metric units correspond to the “International System of Units” (SI) and generally follow ASTM E 380, “Standard for Metric Practice.”

1.2.3.7 Standard Specifications. Any reference to standard specifications of any society, institute, association, or governmental authority is a reference to the organization’s standard specifications, which are in effect at the date of the Contractor’s proposal unless directed otherwise. If applicable specifications are revised prior to completion of any part of the Work, the Contractor may, if acceptable to Architect and Project Manager, and approved by the District perform such Work in accordance with the revised specifications. The standard specifications, except as modified in the Specifications for the Project, shall have full force and effect as though printed in the Specifications. Architect will furnish, upon request, information as to how copies of the standard specifications referred to may be obtained.

1.2.4 Rules of Document Interpretation

1.2.4.1 Should the Contractor discover any conflicts, omissions, or errors in the Contract Documents, or have any question concerning interpretation or clarification of the Contract Documents, or if it appears that the Work to be done or any matters relative thereto are not sufficiently detailed or explained in the Contract Documents, then before proceeding with the work affected, the Contractor shall within 48 hours notify the Project Manager in writing and request interpretation, clarification, or additional detailed instructions and/or drawings concerning the work. All such questions shall be resolved and instructions to the Contractor issued by the Project Manager.

Should the Contractor and/or their subcontractors proceed with the work affected before receipt of instructions from the Project Manager it shall remove and replace or adjust any work, which is not in accordance therewith, and it shall be responsible for any resultant damage, defect, or added cost.

1.2.4.2 If any portion of the Contract Documents shall be found to be in conflict with any other portion, the various Documents comprising the Contract Documents shall govern in the following order of precedence: Permits from outside agencies required by law and applicable codes or laws, Modifications; the Owner/Contractor Agreement; addenda; supplemental conditions; General Conditions; other Division 0 and Division 1 documents and Sections; specifications; the drawings. As between figures given on drawings and the scaled measurements, the figures shall govern. As between large scale drawings and small scale drawings, the larger scale shall govern. Cost of the work, Schedule of values.

1.2.4.3 In general, the Drawings will show dimensions, position, and kind of construction; And the Specifications, qualities and methods. Any work called for in the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both. Work not particularly detailed, marked, or specified shall be the same as similar parts that are detailed, marked, or specified.

GENERAL CONDITIONS

1.2.4.4 In case of conflict between the Drawings and Specifications, the Drawings shall govern in matters of quantity, the Specifications in matters of quality. In case of conflict within the Drawings involving quantities or within the Specifications involving quality, the greater quantity and the higher quality shall be furnished.

1.2.4.5 Should an error appear in the Drawings or Specifications, or in the work done by others affecting this work, the Contractor shall notify the Project Manager at once. In conjunction with the Architect, the Project Manager will issue instruction as to procedure. If the Contractor proceeds with the work so affected without instructions from the Project Manager, he shall make good any resulting damage or defects.

1.2.4.6 The general character of the detail work is shown on the Contract Drawings. Any work executed before receipt of such details, if not in accordance with same, shall be removed and replaced, or adjusted, as directed, without expense to the Owner. Should any detail submitted later than the Contract Drawings is, in the opinion of the Contractor, more elaborate than the Scale Drawings and the Specifications indicated, written notice thereof shall be given to the Project Manager within three (3) days of receipt of same. The claim will then be considered, and, if justified, said detail drawings will be amended or the extra work authorized. Non receipt of such notice shall relieve the Owner of any claim.

1.2.4.7 Where on any Drawings a portion of the work is drawn out and the remainder is indicated in outline, the drawn out parts shall apply to all other like portions of the work. Where ornament or other detail is indicated starting only, such detail shall be continued throughout the courses or parts in which it occurs and shall also apply to other similar parts in the work, unless otherwise indicated.

1.2.4.8 When specified brands or kinds of material are called for they are mentioned merely as standards and the Contractor has the option of using any other brand of equal quality if approved by the Architect. Any materials named in the Specifications, or which may be substituted, must, if so desired by the Architect, be tested by said Architect at the expense of Contractor.

1.2.4.9 Any material specified by reference to the number, symbol, or title of a specified standard such as a Commercial Standard, a Federal Specification, a trade association standard, or other similar standards, shall comply with the requirements in the latest approved revision thereof and any amendments or supplements thereto in effect on the date of Notice to Contractors, except as limited to type, class, or grade, or modified in such reference.

1.2.4.10 The standards referred to, except as modified in the Specifications, shall have full force and effect as though printed in these Specifications. These standards are not furnished to bidders, for the reason that the manufacturers and trades involved are assumed to be familiar with their requirements. The Architect will furnish, upon request, information as to how copies of the standards referred to may be obtained.

1.2.4.11 Where it is required in the Specifications that materials, products, processes, equipment or the like be installed or applied in accordance with manufacturers' instructions, directions, or specifications, it shall be construed to mean that said application or installation shall be in strict accordance with the printed instructions furnished by the manufacturer of the materials considered for use under conditions similar to those at the job site. Eight copies of such instructions shall be furnished to the Project Manager.

1.2.4.12 Where ever an article, device or piece of equipment is referred to in singular number, such reference applies to all such articles shown on Drawings or required to complete the installation.

1.3 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

The Drawings, Specifications, and other contract documents including Contractor shop drawings and submittals for the Project are the property of the District. The Contractor may retain one contract record set. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. All copies except the Contractor's record set, shall be returned or properly accounted for upon completion of the Work. The Drawings, Specifications, and other documents prepared by the Architect, and copies thereof furnished to the Contractor are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work. The District and/or Architect hereby grants the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings, Specifications, and other documents prepared for the Project in the execution of their Work under the Contract Documents. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the District's property interest or other reserved right.

ARTICLE 2

2.1 INFORMATION AND SERVICES REQUIRED OF THE DISTRICT

2.1.1 Site Survey.

The District will furnish, at its expense, a legal description of the Site and a land survey showing the boundaries of the Site. Contractor shall be responsible for all surveys regarding location of construction, grading and site work.

2.1.2 Soils

When required by the scope of the Project, the District will furnish, at its expense, the services of geotechnical engineers or consultants when reasonably required and deemed necessary by the Architect or as required by local or state codes. Such services, with written reports and appropriate written professional recommendations, may include test boring, test pits, soil bearing values, percolation tests, air and water pollution tests, and ground corrosion and resistivity tests, including necessary operations for determining subsoil, air, and water conditions.

The Soils Report recommendations may be less restrictive than the Project specifications. The most stringent shall apply and therefore the Contractor shall construct the earthwork and soil related portion of the Project. The Soils Report is supplementary to the specifications, and is attached as an exhibit for reference and information only. **Contractor must review the "Information Available to Bidders", section 00 50 11 in the Bid Documents and familiarize itself with the contents thereof.**

2.1.3 Contractor Reliance

A soils investigation report has been obtained from test holes at the Site, and such report is available for the Contractor's use in preparing its bid and Work under this Contract. The soils report is available at the Project Manager's office for review, the soils report is for reference only. Any information obtained from such report or any other information given on drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only. If, during the course of Work under this Contract, Contractor encounters subsurface conditions which differ materially from those indicated in the soils investigation report, then Contractor shall notify the District, Project Manager and Architect through the Project Manager within three (3) calendar days of discovery of the condition, and changes to the contract price may be made in accordance with Article 7 entitled "Changes in the Work." Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages in the event the Contractor fails to notify District within the three-day

GENERAL CONDITIONS

period mentioned above. **Contractor must review the “Information Available to Bidders”, section 00 50 11 in the Bid Documents and familiarize itself with the contents thereof.**

WARNING: DISTRICT DOES NOT WARRANT THE SOILS AT THE PROJECT SITE. SOILS INVESTIGATION REPORT IS PROVIDED FOR CONTRACTORS INFORMATION ONLY. CONTRACTOR HAS CONDUCTED AN INDEPENDENT INVESTIGATION OF THE PROJECT SITE AND THE SOILS CONDITIONS OF THE SITE. DISTRICT DOES NOT WARRANT THE SOILS CONDITIONS OF THE SITE AND CONTRACTOR IS FULLY RESPONSIBLE TO ASCERTAIN SITE CONDITIONS FOR THE PURPOSES OF DETERMINING CONSTRUCTION MEANS AND METHODS PRIOR TO COMMENCING CONSTRUCTION. THE SOILS INVESTIGATION REPORT IS NOT A CONTRACT DOCUMENT.

2.1.4 Utilities

2.1.4.1 Regional Notification Center. Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the District has been given the identification number by the Contractor. Any damages arising from failure to make appropriate regional notification shall be at the sole risk of Contractor. Any delays caused by failure to make appropriate regional notification shall be at the sole risk of Contractor and shall not be considered for extension of time pursuant to Article 8.4.

2.1.4.2 Utilities - Removal and Restoration.

The District has endeavored to determine the existence of utilities at the Site of the Work from the records of the District of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown in the Contract Documents.

No excavations were made to verify the locations shown for underground utilities. The service connections to these utilities may not be shown on the plans. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work, which could result in damage to such utilities. The Contractor shall immediately notify the Project Manager as to any utility discovered by Contractor in a different position than shown in the Contract Documents or which is not shown on the Contract Documents.

Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of any work.

2.1.5 Existing Utility Lines; Removal, Relocation

The contractor has the responsibility to identify, with reasonable accuracy, all utilities necessary to complete their scope of work. The Contractor shall exercise due diligence and shall not be compensated by the District for the actual verified cost of locating, and removing, relocating, protecting or temporarily maintaining existing utility services.

- The District shall furnish an existing utility survey as-built for reference.

GENERAL CONDITIONS

- The Contractor shall hire an independent underground utility locator service company to identify and verify existing underground utilities within the scope of work. All cost and fees associated with this work shall be at the Contractor's own expense and included in the base bid.
- Upon completion of the independent under utility locator survey and prior to any excavations, Contractor's project manager, superintendent and subcontractor/excavator are required to conduct an onsite field verification of existing conditions, shall mark-out the utilities, and transfer all information to a working utility as-built. Contractor's utility survey as-built shall be submitted to District.
- In the event an existing utility service is interrupted or damaged the Contractor shall be required to make all necessary repairs within 4hrs. Also, District shall be entitled to recover from the Contractor all damages the District sustains, at its, shall calculate and the damages against the Contractor for disruption to any Campus Operation(s), including but not limited to, extended loss

of utility services resulting in shut down of classes, instructional labs, administrative offices, public safety offices, M&O offices and fire/life/safety services of students and staff. Contractor shall furnish to the District, the Contractor's on-call emergency repair contact list of contacts/companies, consisting of, but not limited to, fiber optics, gas, water, electric and sewer.

- Adjustment of the Contract Amount, Milestones and/or Contract Time will be allowed to the extent the existence of such revealed conditions directly causes an increase in Contractor cost and/or time of performance of the Work shall be subject to the conditions noted above.
- Contractor shall not be entitled to an adjustment in the Contract Amount, Milestones and/or Contract Time if: (1) Contractor was aware of the condition at the time of the bid; and/or (2) the existence of discovery of the condition could have been discovered as a result of any reasonable examination, investigation, exploration, test and/or examination of the Project Site and areas adjoining the Project Site as required by the Bid Documents before Contractor submission of Bid.

If the Contractor believes any subsurface or physical condition uncovered, revealed or otherwise exposed at the project site is of such character and/or nature as to require a change in the Contract Documents; materially different from that shown, indicated or described in the Bid Documents; or an unusual nature materially different from conditions normally encountered and generally recognized as inherent in Work of the character provided for in the Bid Documents, then Contractor shall upon discovery notify the District/Project Manager in writing within (1) one calendar day.

2.1.6 Easements

District shall secure and pay for easements for permanent structures or permanent changes in existing facilities, if any, unless otherwise specified in the Contract Documents.

2.2 DISTRICT'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails (within a (72) Seventy Two hour period after receipt of written notice or a shorter time period expressly stated in the written notice from the District in an emergency situation) to commence and continue correction of such default with diligence and promptness, the District may correct such deficiencies without prejudice to other remedies the District may have, including those set forth in Article 14 after providing three-day written notice to Contractor and Surety. If during this three (3) day period, Surety personally delivers notice to District that it intends to perform

GENERAL CONDITIONS

such work, District shall allow Surety seven (7) days to perform. In an emergency situation, the District may correct such deficiencies without prejudice to other remedies the District may have, including those set forth in Article 14 after providing 48 hours' notice to the Contractor. In either case, the Contractor will be invoiced the cost of correcting such deficiencies, including compensation for additional services and expenses made necessary by such default, or neglect. The invoice amount shall be deducted from the next payment due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District. The District may at exercise their right to carry out the work, in the event the Contractor, and/or anyone performing under and/or through the Contractor, fails to meet the minimum conditions outlined below:

1. Failure to supply adequate workers on the entire Project or any part thereof;
 2. Failure to supply a sufficient quantity of materials, products, equipment, apparatus, and the like;
 3. Failure to perform any provision of this Contract;
 4. Failure to comply with safety requirements, or due to Contractor's creation of, and/or failure to immediately resolve, an unsafe condition;
 5. In the case of bona fide emergency;
 6. Failure to order materials/products/equipment/apparatus, and the like, in a timely manner;
 7. Failure to prepare deferred-approval items or shop drawings in a timely manner;
-
8. Failure to comply with Contractor's schedule which would result in a delay to any critical path activity; or
 9. Failure to comply with the Subletting and Subcontracting Fair Practices, Public Contract Code section 4100, et seq.

2.3 STOP WORK CLAUSE FOR CONSTRUCTION CONTRACT

2.3.1 Archaeological Resources

In the event that archaeological materials or historic-age (i.e., over 50 years old) features are encountered during ground-disturbing construction activities (e.g., grading, trenching, excavating), these activities must be suspended within 100 feet of the find and the Project Archaeologist at ECORP Consulting, Inc. notified. The ECORP archaeologist(s) will then record and evaluate the find for eligibility to the California Register of Historical Resources (CRHR). If evaluated as CRHR-eligible and determined eligible by the San Bernardino Community College District, the site must be avoided and preserved. If that is not feasible, an archaeological data recovery program shall be completed. The appropriate level of work required will be determined by the Project Archaeologist. Work in the vicinity of the find can commence when cleared by the Project Archaeologist.

2.3.2 Human Remains

If bone of any kind is found during construction, work must be suspended within 100 feet of the find and the Project Archaeologist at ECORP consulting, Inc. notified. The ECORP archaeologist will then determine if the bone is human. If it is determined or even suspected that the bone represents human remains, the requirements of CEQA Guidelines Section 150645(e) must be followed and will be implemented by ECORP, in coordination with the San Bernardino Community College District. According to these requirements, all construction activities must cease immediately. The San Bernardino County Coroner will be notified by ECORP. The Coroner will examine the remains and determine the next appropriate action based on his/her findings. If the coroner determines the remains to be of Native American origin, he/she will notify the Native American Heritage Commission (NAHS). The NAHC will then identify the most likely descendants (MLD) to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after being granted access to the property, the San Bernardino Community College District shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. Work cannot continue until clearance has been granted by the County Coroner and the College District.

2.3.3 Paleontological Resources

Portions of the project area consist of Pleistocene alluvial sediments that have a high potential to contain significant, nonrenewable paleontological resources. A mitigation program is being developed by ECORP Consulting, Inc. for the project and will require the presence of a qualified vertebrate paleontologist during all ground-disturbing activities in undisturbed Pleistocene sediments. Monitoring may be required during excavation. The monitor will be present during initial excavation in these areas and will determine the appropriated schedule for monitoring based on examination of the exposed soils. The monitor will have the authority to temporarily halt or divert equipment to allow recovery of significant fossils. Work can continue in the area when cleared by the Project Paleontologist.

- If the Work is delayed for any reason for which neither Contractor nor Owner are responsible, Contractor's and Owner's sole and exclusive remedy for such delay will be a non-compensable extension of the Contract Time for the duration of such delay to the critical path as shown by the current approved schedule.

ARTICLE 3

3.1 SUPERVISION AND CONSTRUCTION PROCEDURES

3.1.1 Contractor

The Contractor shall continually supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures; and shall coordinate all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. The Contractor shall not perform the Work without utilizing the Contract Documents or, where required, approved shop drawings, product data, or samples for any such portion of the work. If any of the Work is performed by contractors retained directly by the District, Contractor shall be responsible for the coordination and sequencing of the work of those other contractors so as to avoid any impact on the Project schedule pursuant to the requirements of Article 6 and Article 8. Specific duties of the Contractor shall include those set out in section 43 of Title 21 of the California Code of Regulations and section 4-343 of Title 24 of the California Code of Regulations. These duties include, but are not limited to the following:

.1 Responsibilities. It is the duty of the Contractor to complete the Work covered by his or her contract in accordance with the approved Contract Documents. The Contractor in no way is relieved of any responsibility by the activities of the Project Manager, Architect, Engineer, Inspector or Riverside County (Planning and Engineering Department) in the performance of their duties.

.2 Performance of the Work. The Contractor shall carefully study the approved Contract Documents and shall plan its schedule of operations well ahead of time. If at any time it is discovered that work is being done which is not in accordance with the approved Contract Documents, the Contractor shall correct the work immediately but not without the knowledge of the Districts representative.

(i). All inconsistencies or times, which appear to be in error in the Contract Documents, shall promptly be called to the attention of the Architect or Engineer through the Project Manager for interpretation or correction. Local conditions, which may affect the Work, shall be brought to the Architect's attention at once. In no case, shall the instruction of the Architect be construed to cause work to be done, which is not in conformity with the approved Contract Documents and as required by law.

- (ii). The Contractor shall not carry on Work except with the knowledge of the Inspector of Record.
- (iii). Verified Reports. The Contractor shall make and submit to the office daily, verified reports as required in section 36 of Title 21 and section 4-366 of Title 24.
- (iv). Contractor shall fully comply with any and all reporting requirements of Education Code section 81147 in the manner prescribed by Title 24, as applicable.

3.1.2 Contractor Responsibility

The Contractor shall be responsible to the District for acts and omissions of the Contractor's employees, Subcontractors, material, product, and equipment suppliers, and their agents, employees, invitees, and employees, Subcontractors, material, product, and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of the Work under direct or indirect contract with the Contractor or any of its Subcontractors.

3.1.3 Obligations not Changed by Architect's Actions

The Contractor shall not be relieved of obligations to perform the work in accordance with the Contract Documents either by activities or duties of the District, Inspector of Record, Architect or the Project Manager, in the administration of the Contract or tests, inspections, or approvals required or performed by persons other than the Contractor.

3.1.4 Performance of Work With Own Force

Contractor shall be allowed to self-perform any portion of the work provided the Contractor is licensed by the State of California. Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills as may be necessary to perform the Work in accordance with the Contract Documents.

3.2 SUPERVISION

3.2.1 Full Time Supervision

The Contractor shall staff and retain at all times during its progress of work a competent construction Superintendent satisfactory to the District. The Superintendent shall be present on a full-time basis, shall be dedicated exclusively to the Project and shall not share duties with another project or job. The Superintendent shall not be replaced except with written consent of the District. The Superintendent shall represent the Contractor and shall be fully authorized to receive and fulfill any instruction from the Project Manager, Architect, the Inspector, the Program Manager, the District or any other District representative. No Work shall begin on any day by any Subcontractor or other person on the Project site until the Superintendent has arrived, or shall any Work continue during the day after the Superintendent has departed from the Project site. The Superintendent shall have authority to bind Contractor through the Superintendent's acts. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be binding on the Contractor. Prior to mobilization the Contractor shall provide written notice to Project Manager containing the name and a Statement of Qualifications of site superintendent. Superintendent shall not be changed except with written consent of District, unless a superintendent proves to be unsatisfactory to Contractor and ceases to be in its employ, in which case, Contractor shall notify District, Project Manager, and Architect in writing. Contractor shall provide a replacement superintendent approved by the District prior to performing additional work.

3.2.2 Staff

Notwithstanding other requirements of the contract documents, the Contractor and each Subcontractor shall: (1) furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work; (2) organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and (3) keep an adequate force of skilled and fit workers on the job to complete the Work in accordance with all requirements of the Contract Documents.

3.2.3 Right to Remove

The Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ on the Work any unfit person or anyone not skilled in the assigned task as defined in the contract documents. The Contractor shall remove, or cause a subcontractor to remove from the Project, any incompetent employee, or any employee not skilled for the type of work required as defined in the contract documents. The District and/or Project Manager may, in writing, require the Contractor to remove from the Work any employee with or without cause.

3.3 LABOR, MATERIALS, ETC.

3.3.1 Contractor to Provide

The Contractor shall provide and pay for labor, material, products, equipment, tools, construction equipment and machinery, water, heat, air conditioning, utilities, transportation, and other facilities, services and permits necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.3.2 Quality

Unless otherwise specified, all materials, products, and equipment to be permanently installed in the Project shall be new and shall be of the highest quality or as specifically stated in the Contract Documents. The Contractor shall, if requested by the District or Project Manager, furnish, within ten (10) days of written request, satisfactory evidence as to kind and quality of materials, products, and equipment along with bona fide copies of invoices for materials, products, equipment, or services provided for the Project. Contractor shall forward information to Project Manager and District. All labor shall be performed by workers skilled in their respective trades, and shall be of the same or higher quality as with the standards of other college construction.

3.3.3 Replacement

Any work, materials, products, or equipment, which do not conform to these requirements or the standards set forth in the Contract Documents, may be disapproved by the District or Project Manager, in which case, they shall be removed and replaced by the Contractor at no additional cost to the District and at with no or extension of time to the Contractor.

3.3.4 Discipline

The Contractor shall enforce strict discipline and good order among the Contractor's and Subcontractor's employees, and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. As used in this subsection, "unfit" includes any person whom the District or Project Manager concludes is improperly skilled for the task assigned to that person, whom fails to comply with the requirements of this article, or whom creates safety hazards which jeopardize other persons and/or property.

3.3.5 Noise, Drugs, Tobacco, and Alcohol

Contractor shall take all steps necessary to insure that employees of Contractor or any of its subcontractors' employees do not use, consume, or work under the influence of any alcohol, tobacco or illegal drugs while on the Project. Contractor shall further prevent any of its employees or its subcontractor employees from playing any recorded music devices or radios or wearing any radio headphone devices for entertainment while working on the Project. Likewise, Contractor shall prevent its employees or subcontractor's employees from bringing any animal onto the Project. Contractors shall not violate any written District or Project Manager policies.

3.3.6 Delivery of Materials, Etc.

Contractor shall place orders for materials, products, and equipment so that the Work may be completed in accordance with the Construction schedule for the Work as set forth in Article 8 of this Agreement. Contractor shall, upon demand from the District or Project Manager, furnish documentary evidence including, but not limited to purchase orders, invoices, bills of materials, work orders, and bills of lading, showing that orders have been placed.

3.3.7 Liens and Other Security Interests of Subcontractors and Material Suppliers

No material, supplies, or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with all improvements and appurtenances constructed or placed thereon by it, to District free from any claims, security interests, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any Work covered by this Contract shall have no right to place a lien upon the premises or any improvement or appurtenance thereof, except that Contractor may install metering devices or other equipment of a utility company or political subdivision, title to which is commonly retained by the utility company or political subdivision. In event of installation of any such metering device or equipment, Contractor shall advise the District through the Project Manager as to its owner within three (3) days of such installation in writing, prior to making the installation.

3.3.8 Title to Materials, Etc.

The title to new materials, products, or equipment for the Work of this Contract, and attendant liability for its protection and safety, shall remain with Contractor until incorporated in the Work of this Contract and accepted by the District, Project Manager and Architect; no part of said materials, products, or equipment shall be removed from its place of storage, and Contractor shall keep an accurate inventory of all said materials, products, and equipment in a manner satisfactory to the District or its authorized representative. If title remains with Contractor for materials, products, and/or equipment until installed, District cannot pay for such stored materials, products or equipment.

3.3.9 Assemblies

For all materials, products, and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, products, equipment, and services necessary for complete assemblies and complete working systems. Incidental items not indicated on the Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized in the Contract Documents in every detail. In all instances, materials, products, and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

3.3.10 Noise Control

The Contractor shall be responsible for the installation of noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise is subject to the control of the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). Contractor shall schedule the performance of all work or make other arrangements so that construction operations do not cause disruption or disturbance to Campus Operations. In no event shall Contractor have a right to receive additional compensation or an extension to the contract time as a result of any such rescheduling or the making of such arrangements.

3.4 WARRANTY

The Contractor warrants to the District and Project Manager that materials, products, and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty to District includes, but is not limited to the following representations:

(a) *Contractor shall, and hereby does, warranty all Work for a period of (1) year after the date of Notice of Completion. This is in addition to any longer written warranties that may also apply.*

(b) In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand. If Contractor fails to do so, District may back charge Contractor and/or set off the costs thereof against monies in the Contract and/or held as retention, in addition to any other right and/or remedy District may have.

(c) If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District's requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor who hereby agrees to pay costs and charges therefore immediately on demand. If Contractor fails to do so, District may back charge Contractor and/or set off the costs thereof against monies in the Contract and/or held as retention, in addition to any other right and/or remedy District may have. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.

(d) This Article does not in any way limit the guarantee on any items for which a longer warranty is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District and Project Manager, all appropriate guarantee or warranty certificates upon completion of the Project.

3.5 TAXES

Contractor will pay all applicable Federal, State, and local taxes on all materials, labor, or services furnished by it, and all taxes arising out of its operations under the Contract Documents. District is exempt from Federal Excise Tax, and a Certificate of Exemption shall be provided upon request.

3.6 PERMITS, FEES AND NOTICES

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3.6.1 Payment

The Contractor shall secure all permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are necessary after execution of the Contract and are legally required by any authority having jurisdiction over the Project, except those required by the Riverside County (Planning and Engineering Department). Contractor shall be responsible for payment of specific permits such as OSHA, etc. and shall not be reimbursable by the District. District shall be responsible for all testing and inspection as required by the Riverside County (Planning and Engineering Department) and Contract Documents.

3.6.2 Compliance

The Contractor shall comply with and give notices required by any law, ordinance, rule, regulation, and lawful order of public authorities bearing on performance of the Work.

3.6.3 Responsibility

The Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule or regulation. The Contractor shall assume full responsibility for such Work and shall bear the cost of correction or Project delay.

3.7 CONTRACTOR'S CONSTRUCTION SCHEDULE

3.7.1 Project Schedule:

Project Schedule is provided by the Contractor. Contractor shall be required to supply the Project Manager the following:

No later than twenty-one (21) calendar days after Notice to Proceed, or such other time as may be set forth in the special provisions, and before commencement of work, the Contractor shall furnish to the Project Manager a critical path method (CPM) baseline schedule for the entire Project. Schedule shall include the following as minimum standards:

- A.** Activities of all trades and subcontractor's that must be completed prior to starting various components of the Work.
- B.** Long lead procurement requirements.
- C.** Submittals and shop drawings required for every spec section included in this contract, using the logic required herein.
- D.** The Contractor's plan for completion of work in sufficient detail to allow observation and monitoring by the Project Manager and the District.
- E.** Activities shall be broken down by building or area, by trade, subcontractor, and by observable sequence of work. All activities shall be broken down into phases two weeks or less in length.
- F.** Inspections required to gain approval of all work installed by this Contractor.

The schedule provided must allow for completion within the milestone durations established in the contract documents and overall project duration. It is the Contractor's responsibility to provide adequate labor resources and to sequence its work in a way to meet these contractual durations, and to coordinate with other District Contractors to allow their work to be completed concurrently if the schedule requires. No progress payments will be approved until schedule input has been reviewed and accepted by the Project Manager and the District satisfying all of the criteria listed.

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The Contractor shall provide status of its activities monthly and submit the monthly update with the progress payment request.

Short Interval Scheduling (SIS) will be used throughout the on-site construction activity.

In the event of a delay affecting the completion date and/or milestones of the Project, Contractor shall advise the District and Project manager within (48) hours regarding significant distribution of the work sequence. It is not the Owner's responsibility to ensure the Contractor the ability to use "optimal" crew size throughout the Project and no adjustment of the Contract Sum will be made for minor variations in crew size or claimed loss of efficiency or disruption that result from schedule adjustments. If the Contractor contends that a schedule adjustment will cause a significant disruption of its work sequence or ability to perform work efficiently, it shall notify the District within forty-eight (48) hours of receipt of the adjustment request. Failure to provide timely notice constitutes a waiver by Contractor of any claim for compensation arising out of the schedule adjustment.

Time is of the essence of this agreement. The Contractor shall, to the fullest extent possible, carry on the various classes or parts of the Work concurrently, and shall not defer construction of any portion of the Work in favor of any other portion of the Work. The Contractor shall staff the project to ensure completion of activities within original durations allowed in the approved Baseline Schedule produced by the Contractor and approved by the Project Manager. The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operations, Sundays and holidays as may be necessary to insure the prosecution and completion of the Work in accordance with the Final Baseline schedule. If work on a critical path is seven days or more behind the currently updated schedule the Contractor will implement whatever steps it deems necessary to make up all lost time. If the actions taken are not successful, the Contractor will make further attempts using the following sequence of events:

- A. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- B. If the above cannot be achieved then;
 1. The Contractor shall increase manpower in such quantities and crafts as will substantially eliminate, the backlog of work; or increase the number of working hours, shifts per working day, working days per week or the amount of equipment or any combination of the foregoing sufficiently to substantially eliminate the backlog of work.
 2. In addition, the Contractor is required to submit a recovery schedule within ten (10) calendar days to the District and Project Manager demonstrating its program and proposed plan to make up a lag in scheduled progress and to ensure completion of the Work within the Contract Time. If the actions taken by the Contractor are unsatisfactory, the Project Manager may require the Contractor to take any of the actions set forth in the previous Article without additional cost to the District to make up the lag in scheduled progress.

Failure of the Contractor to comply with the requirements of this Section shall be considered grounds for a determination by the District and Project Manager, that the Contractor is failing to prosecute the Work with such diligence as will ensure its completion within the time specified.

The District and the Project Manager will not be responsible for the failure of the Contractor to plan, schedule and execute the Work in accordance with the approved schedule or the failure of the Contractor to meet the Contract milestone/completion dates or the failure of the Contractor to schedule and coordinate the Work of the Contractor's own trades and Subcontractors or to coordinate and cooperate with other District Contractors." Refer to Milestone Schedule Constraints as outlined below:

3.7.2 Sequencing of the scope of work shall be coordinated with the Project Manager and Campus.

SCHEDULE MILESTONES:

A. Standard Work Hours: Regular Construction Work Hours and Construction Site Access are Monday through Friday 7:00a.m. – 4:00pm.

B. Notice to Proceed Milestones

i. **NTP 1:** 311 calendar days shall consist of all general requirements, including but not limited to required Submittals, engineering services, design permit by the County of Riverside, and pre-construction meetings, site walks, and long lead procurement requirements, and complete construction of the new tower.

ii. **NTP 2:** No NTP-2 is included in this project

C. Interim Milestones

i. No interim milestone for this project.

D. Completion Milestones

i. Substantial Completion: (1) calendar day, within duration of NTP 1.

ii. Punch list: (30) calendar days, within duration of NTP 1.

iii. Final Completion (1) calendar day, within duration of NTP 1.

iv. Notice of Completion (1) calendar day, within duration of NTP 1.

E. Phasing of Work

i. Constraints: See General Requirements Division 1, Section 01 32 16; Project Construction Schedule.

3.7.3 Failure to Meet Requirements

Failure of the Contractor to provide proper schedules as required by this Article and Article 9 is a material breach of the contract and grounds for termination pursuant to Article 14. The District, at its sole discretion, may choose, instead, to withhold, in whole or in part, any progress payments or retention amounts otherwise payable to the Contractor.

3.8 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the Site for the District one current copy of the Uniform Building Code, Titles 19, 21 and 24 of the California Code of Regulations and one record copy of the Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record changes and selections made during construction. In addition, the Contractor shall maintain at the Site approved Shop Drawings, Product Data, Samples, and similar required submittals. These documents shall be available to the

Architect and Project Manager and shall be delivered to the Project Manager for delivery to the District upon completion of the Work.

3.9 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

3.9.1 Submittals defined

3.9.1.1 Shop Drawings. The term “shop drawings” as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer’s standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, products, equipment, or systems and their position conform to the requirements of the Contract Documents. The Contractor shall obtain and submit with shop drawings all seismic and other calculations and all product data from equipment manufacturers. “Product data” as used herein are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work. As used herein, the term “manufactured” applies to standard units usually mass-produced, and “fabricated” means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.

3.9.1.2 Samples. The term “samples” as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, fabricated items, equipment, devices, appliances, or parts thereof as called for in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.

3.9.1.3 Schedule for Submission of Shop Drawings. Contractor shall obtain and shall submit all required shop drawings, samples, etc., in accordance with the Project Schedule as required in the scheduling portion of the General Conditions at Article 3.7 with such promptness as to cause no delay in its own Work or in that of any other Contractor or subcontractor but in no event later than ninety (90) days after the execution of Notice to Proceed. Contractor shall submit all shop drawings, samples, and manufacturer’s descriptive data for the review of the District, Project Manager and Architect. By submitting shop drawings, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such submittals with the requirements of the Work and Contract Documents. The submission of the shop drawings, product data, samples, etc., shall not deviate from the requirements of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution. All deviations from the Contract Documents shall be described, in a narrative format, in a transmittal accompanying the shop drawings. Shop drawings shall not be used as a means of requesting a substitution. Review by District, Project Manager and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper shop drawings in accordance with the Contract Documents. Any submission, which in District’s and Project Manager’s opinion is incomplete, contains errors, or has been checked superficially, will be returned un-reviewed by the Architect for resubmission by the Contractor. Contractor shall stamp, sign, and date each submittal indicating its representation that the submittal meets all of the requirements of the Contract Documents and evidence Contractor’s review through execution of the following stamp to be placed on each shop drawings:

“The Contractor has reviewed and approved the field dimensions and the construction criteria, and has also made written notation regarding any information in the shop drawings that does not conform to the contract documents. This shop drawing has been coordinated with all other shop drawings received to date by Contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, District, Project Manager, Architect, or the Engineer(s) on this Project.

Signature of Contractor and Date

3.9.1.4 Extent of Review. In reviewing shop drawings, the District, Architect and Project Manager will not verify dimensions and field conditions. The Architect will review and approve shop drawings, product data, samples, etc., for aesthetics and for conformance with the design concept of the Work and the information in the Contract Documents. The Architect’s and Project Manager’s review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect’s attention to the deviations at the time of submission. The Architect’s and Project Manager’s review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in shop drawings or schedules, for proper fitting of the Work, coordination of the differing subcontractor trades and shop drawings and Work which is not indicated on the shop drawings at the time of submission of shop drawings. Contractor and Subcontractors shall be solely responsible for any quantities which may be shown on the submittals or Contract Documents.

3.9.2 Drawing and Submission Procedure

3.9.2.1 Transmittal Letter and Other Requirements. All submittals and shop drawings must be properly identified with the name of the Project, submittal number organized by division, dated, and each lot submitted must be accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as “clouding” on the submissions, all qualifications, departures, or deviations from the Contract Documents. Shop drawings, for each section of the Work shall be numbered consecutively by division, and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor.

3.9.2.2 Copies Required. Each submittal shall include eight (8) reproducible and / or legible prints of each drawing or schedule, table, cut sheet, etc., including fabrication, erection, layout and setting drawings, and such other drawings as required under the various sections of the Specifications, until final acceptance thereof is obtained. Subcontractor shall submit copies, in an amount as requested by the Contractor, of: (1) manufacturers’ descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; (2) wiring diagrams and controls; (3) schedules; (4) all seismic calculations and other calculations; and (5) other pertinent information as required by the District or Architect.

3.9.2.3 Corrections. The Contractor shall make all corrections required by Architect and shall resubmit within seven (7) calendar days, as required by Architect or Project Manager, corrected copies of shop drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections required by the Architect or Project Manager on previous submissions. Professional services required for more than one (1) re-review of required submittals of shop drawings, product data, or samples are subject to charge to the Contractor.

3.9.2.4 Approval Before Commencement of Work. No portion of the Work requiring a shop drawing or sample submission or other submittal shall be commenced until the submission has been reviewed by Contractor,

Project Manager, and Architect, and approved by the Architect, unless specifically directed in writing by the Architect. All such portions of the Work shall be in accordance with approved shop drawings and samples.

3.9.3 Sample Submissions Procedure

3.9.3.1 Samples Required. In case a considerable range of color, graining, texture, or other characteristics are anticipated in finished products, a sufficient number of samples of the specified materials shall be furnished by the Contractor to indicate the full range of characteristics which will be present in the finished products; and products delivered or erected without submittal and approval of a full range of samples shall be subject to rejection. Except for range samples, and unless otherwise called for in the various sections of the Specifications, samples shall be submitted in **quantities of (8)**. All samples shall be marked, tagged, or otherwise properly identified with the name of the submitting party, the name of the Project, the purpose for which the samples are submitted and the date, and shall be accompanied by a letter of transmittal containing similar information, together with the submittal number, and Specification section number. Each tag or sticker shall have clear space for the review stamps of Contractor and Architect.

3.9.3.2 Labels and Instructions. All samples of materials shall be supplied with the manufacturer's descriptive labels and application instructions.

3.9.3.3 Architect's Review. The Architect and Project Manager will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect's stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Architect's (or District's) standard procedures.

3.9.3.4 Record Drawings and Annotated Specifications. The Contractor is responsible for any required as-built record drawings and specifications. The Contractor shall at the time of installation and no less than on a weekly basis, update a master set of as-built reproducible drawings to be maintained in the project office. In addition, an as-built set of blue line drawings should be kept current at the project site and be clearly labeled "As-Built Progress Documents". These shall be made available to for viewing by the District/Project Manager and the Architect at any time. The following information shall be inserted and dimensioned on said drawings and specifications, in RED, by the Contractor: the exact horizontal and vertical location of all installations in their finished condition, including but not limited to changes made by change orders, partial change orders, construction directives, responses to RFI's, ASI's, verbal confirmations, and other modifications described in these Contract Documents: Locations of Work buried under and outside the building, such as plumbing and electrical lines and conduits: Locations of significant Work concealed inside the building whose general locations have been changed from those shown on the Contract Documents: Locations of items, not necessarily concealed, which have been changed with the District/Project Manager or Architect's prior acceptance, from the location shown on the Contract Documents: Locations of main runs of piping, conduit, ductwork, and similar items by dimensions: Locations other items either by dimensions or in relation to spaces within the building: Record deviations from the sizes, locations, and other features of installation shown in the Contract Documents: Establish locations of underground Work by dimension to column lines or walls, locating turns, and by referenced centerline and invert elevations and rates of fall: Give sufficient information to locate Work concealed in the building. Exact dimensioned location of all utilities underground within the construction limit lines.

The Contractor shall update the drawings as work progresses. Failure to comply with the preparation and submission of as-built drawings may result in the District and/or Project Manager withholding the next month's progress payment.

3.9.3.5 Equipment Manuals. Contractor shall obtain and furnish, in the quantity described in Section: Contract Closeout of the General Requirements; complete sets of manuals containing the manufacturers' instructions for maintenance and operation of each item of equipment and apparatus furnished under the Contract Documents and any additional data specifically requested under the various sections of the Specifications for each division of the Work. The manuals shall be arranged in logical, sequential order, labeled, indexed, and placed in

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three-ring binders. At the completion of its Work, the Contractor shall certify, by endorsement thereon, that each of the manuals is complete, accurate, and covers all of its Work. Prior to submittal of Contractor's Application for Final Payment, and as a further condition to its approval by the Architect, each Subcontractor shall deliver the manuals, arranged in logical, sequential order, labeled, indexed, endorsed, and placed in three-ring binders, to the Contractor, who shall assemble these manuals for all divisions of the Work, review them for completeness, and submit them to the District through the Project Manager.

3.9.3.6 District's Property. All shop drawings, computer disks, annotated specifications, samples and other submittals shall become the District's property upon receipt by the District, Project Manager or Architect.

3.9.4 Substitutions

3.9.4.1 One Product Specified. Whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." The Contractor may, unless otherwise stated, offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Documents.

3.9.4.2 Products Specified Which are Commercially Unavailable. If the Contractor fails to make a request for substitutions for products and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District's discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract price should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the Riverside County (Planning and Engineering Department), or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and deducted via Change Order.

3.9.4.3 Substitution Request Form. Requests for substitutions of products, materials, or processes in place of the Specified Item must be in writing on the District's Substitution Request Form (refer to Contract Documents)

The Request Form must be accompanied by evidence as to whether the proposed substitution:

1. Is equal in quality/service/ability to the Specified Item;
2. Will entail no changes in detail, construction, and scheduling of related work;
3. Will be acceptable in consideration of the required design and artistic effect;
4. Will provide no cost disadvantage to the District;
5. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
6. Will require no change of the construction schedule.

Only one request for substitution will be considered for each product. By completing and submitting the request for substitution the Contractor acknowledges that should the request for substitution not be approved by the District that the Contractor shall supply the specified at no addition claim for cost to the District.

Substitution proposals will not be considered before bidding for the award of a contract. All requests for substitutions shall be made within thirty (30) days of the Contractors receipt of Notice to Proceed No. 1 and should be considered priority initial submittals. Failure to meet said time period shall constitute a waiver by the Contractor and an

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acceptance of the specified materials. Late submittals may be considered only when the Project Manager consents in writing that it is in the District's best interests so require.

The District, Project Manager and the Architect shall evaluate said request, and shall approve, deny, approve with conditions, or initiate the procedure for a Change Order in response to the Contractor's request. If the proposed substitution is rejected, the Contractor shall provide the material originally specified. Such decision shall be final.

Failure by the Contractor to identify all deviations from the Contract Documents in its request for substitution shall render any District action taken thereon null and void. The Contractor shall bear all costs resulting from any error in the request for substitution.

3.9.4.4 List of Manufacturers and Products Required. The Contractor shall require all Subcontractors to prepare and submit to the Contractor, within thirty (30) days of execution of the Subcontract, comprehensive lists, in quadruplicate, of the manufacturers and products proposed for the Project, including information on materials, equipment, and fixtures required by the Contract Documents, as may be required for the Contractor's or Architect's approval. Approval of such lists of products shall not be construed as a substitute for the shop drawings, manufacturer's descriptive data, and samples, required by the Contract Documents, but rather shall be considered as a base from which more detailed submittals shall be developed for final review by the Contractor, Project Manager, District and the Architect.

3.9.5 Deferred Approvals

Deferred approvals shall be submitted and processed pursuant to the requirements of Division 1 of the Specifications. All deferred approvals shall be prepared by Contractor or Contractor's agent early enough so as to not delay the Project. Contractor is aware that Title 21 California Code of Regulations section 17(g) and Title 24 California Code of Regulations section 4-317 have specific requirements for deferred approval as to governing agencies and as to the Architect and Engineer for the Project. As a result, any delay associated with the time for approval by applicable agencies or by the Architect or Architect's consultants shall be Contractor's.

3.10 INTEGRATION OF WORK

3.10.1 Scope

The Contractor shall be responsible for cutting, fitting, or patching to complete the Work and to make all parts fit together properly. Contractor shall be responsible for ensuring that all subcontractors are coordinated and scheduled so as to ensure the timely and proper execution of the work. When modifying existing work or installing new Work adjacent to existing work, Contractor shall match, as closely as conditions of Site and materials will allow, the finishes, textures, and colors of the original work, refinishing existing work at no additional cost to District. All cost caused by defective or ill-timed work shall be borne by Contractor. Contractor shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.

3.10.2 Structural Members

New or existing structural members and elements, including reinforcing bars and seismic bracing, shall not be cut, bored, or drilled except by written authority of the Architect AND APPROVED BY RIVERSIDE COUNTY (PLANNING AND ENGINEERING DEPARTMENT). Work done contrary to such authority is at the Contractor's risk and subject to replacement at its own expense without reimbursement under the Contract. Schedule delays resulting from Agency approvals for unauthorized work shall be the Contractor's responsibility.

3.10.3 Subsequent Removal

Permission to patch any areas or items of the Work shall not constitute a waiver of the District's or the Architect's right to require complete removal and replacement of the areas or items of the Work if, in the opinion of the Architect, Project Manager or the District, the patching does not satisfactorily restore quality and appearance of the Work or does not otherwise conform to the Contract Documents.

3.11 CLEANING UP

3.11.1 Contractor's Responsibility

Contractor at all times shall keep premises free from debris such as waste, dust, excess water, storm water runoffs, rubbish, and excess materials and equipment. Contractor shall not leave debris under, in, or about the premises, but shall promptly remove debris from the premises and dispose of it in a lawful manner. Disposal receipts or dump tickets shall be furnished to the Project Manager daily. Upon completion of Work, Contractor shall clean interior and exterior of buildings, including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected, so surfaces are free from foreign material or discoloration; Contractor shall clean and polish all glass, plumbing fixtures, equipment, finish hardware and similar finish surfaces. Upon completion of the Work, Contractor shall also remove temporary utilities, fencing, barricades, planking, sanitary facilities and similar temporary facilities from Site.

Contractor shall remove rubbish and debris resulting from the Work on a daily basis. Contractor shall maintain the structures and Site in a clean and orderly condition at all times until acceptance of the Project by the District. Contractor shall keep its access driveways and adjacent streets, sidewalks, gutters and drains free of rubbish, debris and excess water by cleaning and removal each day.

Final cleanup of the Site and buildings shall be the responsibility of the Contractor.

3.11.1.1 In addition to the general cleaning, the following special cleaning shall be done at the completion of the work in accordance with the specifications including, but not limited to:

- (a) Remove putty stains from glazing, then wash and polish glazing.
- (b) Remove marks, stains, fingerprints and other soil or dirt from painted, stained or decorated work.
- (c) Remove temporary protection and clean and polish floors and waxed surfaces.
- (d) Clean and polish hardware and plumbing trim; remove stains, dust, dirt, plaster and paint.
- (e) Remove spots, soil, plaster and paint from tile work, and wash tile.
- (f) Clean all fixtures and equipment, remove excess lubrication, clean light fixtures and lamps, polish metal surfaces.
- (g) Vacuum-clean carpeted surfaces.
- (h) Remove debris from roofs, down spout and drainage system.

3.11.2 Failure to Cleanup

The Contractor shall properly clean its work and the Site, and maintain its work area in an orderly manner. The Contractor shall remove all dirt, debris, waste, rubbish, and implements of service from the Project, the adjacent

sidewalks and streets, and the working area daily or as directed by the District and/or Project Manager. Debris, waste, or unused construction materials shall not be left under, in, or about the Project, nor allowed to accumulate on the Site or in the working area.

The Contractor, at its sole cost, shall contract with a disposal company to remove all such rubbish, and shall have the refuse containers emptied at frequent enough intervals so that waste does not overflow the containers.

If the Contractor fails to clean up during progress or upon completion of the Work, the District and or Project Manager may, at the Contractor's expense who hereby agrees to pay costs and charges therefore immediately on demand. If Contractor fails to do so, District may back charge Contractor and/or set off the costs thereof against monies in the Contract and/or held as retention, in addition to any other right and/or remedy District may have.

3.12 ACCESS TO WORK

The Contractor shall provide the Project Manager, District, the Architect, Engineers and the Inspector of Record, access to the Work in preparation and progress wherever located. Contractor shall provide safe and proper facilities for such access so that District's representatives may perform their functions.

3.13 ROYALTIES AND PATENTS

3.13.1 Payment and indemnity for Infringement

Contractor shall hold and save the District and its officers, agents, and employees, the Architect, and the Architect's consultants, the Project Manager and its officers, agents and employees harmless from liability of any nature or kind, including cost and expense, for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract, including its use by the District, unless otherwise specifically provided in the contract documents, and unless such liability arises from the sole negligence, or active negligence, or willful misconduct of the District, the Architect, or the Architect's consultants.

3.13.2 Review

The review by the Architect and Project Manager of any method of construction, invention, appliance, process, article, device, or material of any kind shall be for its adequacy for the Work and shall not be an approval for the use by the Contractor in violation of any patent or other rights of any person or entity.

3.14 INDEMNIFICATION

3.14.1 Contractor

Contractor shall defend, indemnify and hold harmless District, Project Manager, Architect, Project Manager, Inspector, their officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or arising from the progress of Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Contractor shall protect and defend, at its own expense, District, Architect, Project Manager, Inspector, their officers, employees, agents, and independent contractors, from any legal action including attorney's fees or other proceeding based upon such act, omission, or breach.

Furthermore, Contractor agrees to and does hereby defend, indemnify and hold harmless District, Architect, Project Manager, Inspector, their officers, employees, agents, and independent contractors, from every claim or demand made, and every liability, loss, damage, expense or attorney's fees of any nature whatsoever, which may be incurred by reason of:

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(a) Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the Work called for in this Agreement or the Contract Documents, except for liability resulting from the sole or active negligence, or the willful misconduct of the District;

(b) Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Contractor or any person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages or injury to, loss (including theft), or loss of use of, any property, sustained by any person, firm or corporation, including District, arising out of or in any way connected with Work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District;

(c) Any dispute between Contractor and Contractor's subcontractors/ suppliers/ sureties, including, but not limited to, any failure or alleged failure of the Contractor (or any person hired or employed directly or indirectly by the Contractor) to pay any Subcontractor or Material man of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic's lien claims; and/or

(d) Any breach of this Agreement by Contractor, and/or its subcontractors, sub-subcontractors and/or suppliers and/or materialmen.

Contractor, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents or employees, on any such claim or liability, and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof. Contractor hereby agrees to pay costs and charges therefore immediately on demand. If Contractor fails to do so, District may back charge Contractor and/or set off the costs thereof against monies in the Contract and/or held as retention, in addition to any other right and/or remedy District may have.

Contractor shall ensure that its contract with each of its subcontractors contains provisions requiring the subcontractors to defend, indemnify and hold harmless the District, Architect, Project Manager and Inspector to a minimum level as set forth in this Article.

The Contractor's and Subcontractors' obligation to defend, indemnify and hold harmless the District, Architect, Project Manager, Inspector, and their officers, employees, agents and independent contractors hereunder shall include, without limitation, any and all claims, damages, and costs for the following: (1) any damages or injury to or death of any person, and damage or injury to, loss (including theft), or loss of use of, any property; (2) breach of any warranty, express or implied; (3) failure of the Contractor or Subcontractors to comply with any applicable governmental law, rule, regulation, or other requirement; and (4) products installed in or used in connection with the Work.

3.15 DAILY REPORTS

The Contractor shall submit Daily Report to Project Manager daily. Submission of Contractor daily report is a condition precedent for the processing of Contractors progress payments.

3.16 **RECORD DRAWINGS**

3.16.1 **General**

The Contractor shall maintain a record set of full-size project drawings upon which all field changes are recorded on a daily basis as described in the General Conditions and as required herein. As a condition of final acceptance of the project, this record set of project drawings with as-built changes shall be signed by the Contractor, shall be delivered to the District and Project Manager and shall be considered the property of the District.

Original data that is superseded shall be lined out and still remain legible. Original figures shall not be eradicated, nor corrections made over an item.

The contractor shall record any changes, deletions, additive, rerouting, stubouts, offsets or any other deviation from the plans on the as-built drawings. All underground and concealed work shall be recorded with exact location by dimension and elevation as detailed below, even when installed in conformance to original drawings.

Elevations shall refer to MLLW datum.

Dimensions shall be shown from permanent installations rather than from fencing or other temporary locations that are subject to change.

Two reference dimensions shall be given for each underground or concealed installation.

Trenches for underground lines shall not be backfilled, nor shall concealed work be covered until elevations and dimensions are recorded complete on as-built drawings and a check has been made of lines versus recorded data by Engineer. If backfill is placed without approval, the works shall be uncovered so that a proper check can be performed. Original data that is superseded shall be lined out and still remain legible. Original figures shall not be eradicated, nor corrections made over an item.

The Contractor is responsible for any required as-built record drawings. The Contractor shall at the time of installation and no less than on a weekly basis, update a master set of as-built reproducible drawings to be maintained in the project office. In addition, an as-built set of blue line drawings should be kept current at the project site and be clearly labeled "As-Built Progress Documents". These shall be made available to for viewing by the District/Program and Project Manager, and the Architect at any time. The following information shall be inserted and dimensioned on said drawings and specifications, in RED, by the Contractor: the exact horizontal and vertical location of all installations in their finished condition, including but not limited to changes made by change orders, partial change orders, responses to RFI's, ASI's, construction directives, verbal confirmations, and other modifications described in these Contract Documents: Locations of Work buried under and outside the building, such as plumbing and electrical lines and conduits: Locations of significant Work concealed inside the building whose general locations have been changed from those shown on the Contract Documents: Locations of items, not necessarily concealed, which have been changed with the District/program and Project Manager or Architect's prior acceptance, from the location shown on the Contract Documents: Locations of main runs of piping, conduit, ductwork, and similar items by dimensions: Locations other items either by dimensions or in relation to spaces within the building: Record deviations from the sizes, locations, and other features of installation shown in the Contract Documents: Establish locations of underground Work by dimension to column lines or walls, locating turns, and by referenced centerline and invert elevations and rates of fall: Give sufficient information to locate Work concealed in the building. Provide exact dimensioned location of all utilities underground within the construction limit lines.

The Contractor shall update the drawings as work progresses. Failure to comply with the preparation and submission of as-built may result in the District and/or Program and Project Manager withholding the next month's progress payment.

ARTICLE 4

4.1 ARCHITECT

4.1.1 Replacement of Architect

In the case of the termination of the Architect, the District may appoint another architect or another construction professional or may perform such functions with its own licensed professional personnel. The status of the replacement Architect under the Contract Documents shall be the same as that of the former architect.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

4.2.1 Status

Pursuant to Titles 24 and 21 of the California Code of Regulations and as required pursuant to the Field Act, Education Code 81130.3 et seq. the Architect will provide administration of the Contract Documents and the Work during construction, as well as during the one (1) year period following the commencement of any warranties. The Architect will have authority to act on behalf of the District only to the extent provided in the Contract Documents and permitted by California Community Colleges Chancellor's Office.

4.2.2 Site Visits

The Architect will visit the Site at intervals necessary in the judgment of the Architect to become generally familiar with the progress and quality of the Work and to determine in general if the Work is being performed in accordance with the Contract Documents. The Architect will attend all Weekly Owner – Contractor Meetings.

4.2.3 Limitations of Construction Responsibility

The Architect, District and Project Manager shall not have control over, charge of, or be responsible for construction means, methods, techniques, schedules, sequences or procedures, fabrication, procurement, shipment, delivery, receipt, installation, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract Documents. The Architect, District and Project Manager shall not be responsible for the Contractor's, Subcontractors', material or equipment suppliers', or any other person's schedules, or failure to carry out the Work in accordance with the Contract Documents. The Architect, District and Project Manager shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, their agents or employees, or any other persons or entities performing or supplying portions of the Work. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect, District or Project Manager in administration of the Contract Documents, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

4.2.4 Communications Facilitating Contract Administration

Except as otherwise provided in the Contract Documents or when direct communications are warranted by special circumstances, the District and the Contractor shall communicate through the Project Manager. The Project Manager shall be promptly informed, and shall receive copies of all written communications. Contractor shall not rely upon any communication from the District that is not from the District's Vice Chancellor for Fiscal Services. Communications by and with the Architect's consultants shall be through the Project Manager. Communications by and with Subcontractors and material or equipment suppliers shall be through the Contractor.

4.2.5 Payment Applications

The Project Manager will review and make recommendations to the District regarding the amounts due the Contractor on the Certificates for Payment pursuant to Article 9 and subject to the Inspector's approval and Architect, and Project Manager's observation.

4.2.6 Rejection of Work

In addition to the rights, duties, and obligations of the Inspector under this Article, the Architect or Project Manager, may recommend to the District that the District reject Work which does not conform to the Contract Documents. Whenever the Architect or Project Manager considers it necessary or advisable to achieve the intent of the Contract Documents, the Architect or Project Manager may, recommend to the District that the District require additional inspection or testing of the Work, whether or not such Work is fabricated, installed, or completed.

However, neither this authority of the Architect or Project Manager nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect or Project Manager to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work.

4.2.7 Warranties Upon Completion

The Architect and Project Manager, in conjunction with the Inspector will conduct field reviews of the Work to determine the date of completion, shall receive and forward to the District for the District's review and records written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment when the Architect and Project Manager believe the Work has been completed in compliance with the requirements of the Contract Documents. The handling by the Architect or Project Manager of such warranties, maintenance manuals, or similar documents shall not diminish or transfer to the Architect or Project Manager any responsibilities or liabilities required by the Contract Documents of the Contractor or other entities, parties, or persons performing or supplying the Work.

The Architect and Project Manager will conduct a field review of the Contractor's comprehensive list of items to be corrected (final punch list) upon receipt of such list. Within seven days of receipt of such list, Architect and Project Manager shall also add to that list any items that it/they determine (supplemented final punch list) should be on said list. At the same time, the Architect and Project Manager will also provide a cost estimate to complete and/or correct each item on the final punch list and supplemental final punch list and provide same to the Contractor and the District's Vice Chancellor for Fiscal Services. The Architect and Project Manager will conduct as many follow-up field reviews as needed to insure timely completion of both lists. If more than two follow up field reviews are required by the Architect and/or Project Manager, the cost incurred by the District for further field reviews, and/or the preparation of further punch lists by the Architect or Project Manager, shall be invoiced to the Contractor who hereby agrees to pay costs and charges therefore immediately on demand. If Contractor fails to do so, District may back charge Contractor and/or set off the costs thereof against monies in the Contract and/or held as retention, in addition to any other right and/or remedy District may have.

4.2.8 Interpretation

The Architect will interpret and decide matters concerning performance and requirements of the Contract Documents.

4.2.9 Additional Instructions

4.2.9.1 Typical Parts and Sections. Whenever typical parts or sections of the Work are completely detailed on the Drawings, and other parts or sections which are essentially of the same construction are shown in outline only, the complete details shall apply to the Work which is shown in outline.

4.2.9.2 Dimensions. Dimensions of Work shall not be determined by scale or rule. Figured dimensions shall be followed at all times. If figured dimensions are lacking on Drawings, Architect shall supply them on request. The District's decisions on matters relating to aesthetic effect will be final.

4.3 INSPECTOR OF RECORD

4.3.1 General

One or more Project inspectors employed by the District and approved by the Division of the State Architect will be assigned to the Work in accordance with the requirements of Title 24 of the California Code of Regulations. The Inspector(s) duties are as specifically defined in Title 24.

4.3.2 Inspector's Duties

All Work shall be under the observation of the Inspector. The Inspector shall have free access to any or all parts of the Work at any time. The Contractor shall furnish the Inspector such information as may be necessary to keep the Inspector fully informed regarding progress and manner of Work and character of materials. Such observations shall not, in any way, relieve the Contractor from responsibility for full compliance with all terms and conditions of the Contract, or be construed to lessen to any degree the Contractor's responsibility for providing efficient and capable superintendence. The Inspector is not authorized to make changes in the drawings or specifications nor shall the Inspector's approval of the Work and methods relieve the Contractor of responsibility for the correction of subsequently discovered defects, or from its obligation to comply with the Contract Documents.

4.3.3 Inspector's Authority to Reject or Stop Work

The Inspector shall have the authority to reject Work in writing noting specific deficiencies whenever provisions of the Contract Documents are not being complied with, and Contractor shall instruct its Subcontractors and employees accordingly. In addition, the Inspector, District, or Project Manager may stop any Work that poses a probable risk of harm to persons or property. The Contractor shall instruct its employees, Subcontractors, material and equipment suppliers, etc., accordingly. The absence of any Stop Work order or rejection of any portion of the Work shall not relieve the Contractor from any of its obligations pursuant to the Contract Documents. The District will not be responsible financially for work stoppages that are the responsibility of the Contractor.

4.3.4 Inspector's Facilities

The Inspector will provide temporary facilities as required.

4.3.5 Testing Times

The District will provide inspection and testing at its cost during the normal eight (8) hour day Monday through Friday (except holidays). Work by the Contractor outside of the normal eight (8) hour day shall constitute an authorization from the Contractor to the District to provide inspection and testing as required outside of the normal eight (8) hour day. Contractor shall reimburse District for any additional costs associated with inspection and testing (including re-inspection and re-testing) outside the normal eight-hour day and for any retests caused by the Contractor.

4.4 RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY THE DISTRICT FOR PROFESSIONAL SERVICES

At any time during the project, if District is required to provide or secure additional professional services for any reason by any acts of Contractor or its Subcontractors, Contractor may be responsible for the cost and expense thereof. Upon notice to Contractor, District shall retain and provide additional professional services and may by assessment, recover all incurred costs for any additional professional services. Additional services shall include, but not be limited to:

- (a) Services made necessary by the default of the Contractor.
- (b) Services made necessary due to the defects or deficiencies in the Work of the Contractor.
- (c) Services required by failure of the Contractor to perform according to any provision of the Contract Documents.
- (d) Services in connection with evaluating substitutions of products, materials, equipment, Subcontractors' proposed by the Contractor, and making subsequent revisions to drawings, specifications, and providing other documentation required (except for the situation where the specified item is no longer manufactured or available).
- (e) Services for evaluating and processing claims submitted by the Contractor in connection with the Work outside the established change order and/or dispute resolution process.
- (f) Services required by the failure of the Contractor to prosecute the Work in a timely manner in compliance within the specified time of completion.
- (g) Services in conjunction with the testing, adjusting, balancing and start-up of equipment other than the normal amount customarily associated for the type of Work involved.
- (h) Services in conjunction with more than one (1) re-review of submittals of shop drawings, product data, samples, etc.

4.5 DISPUTES & CLAIMS

The District and Contractor agree that Article 7, in its entirety, must be followed as a condition precedent to proceeding under Articles 4.5 through 4.5.10 below. Together, Article 7 and Articles 4.5 through 4.5.10 establish the exclusive procedures for resolving disagreements, "Disputes" and "Claims" between the Contractor and the District regarding this Agreement, except as may be expressly exempted elsewhere in this Agreement.

Disagreements, "Disputes" and "Claims" relate to time, money, the scope of work required by this Agreement, deleted and/or extra work that is requested by the District, change order requests from the Contractor, unforeseen underground conditions, non-conforming conditions not caused by the Contractor and/or others working under the Contractor, and/or all or some of the foregoing. They are only distinguished by where in the claims resolution process they may be at a given point in time.

Another intent of this exclusive resolution procedure is that if the process set forth in Article 7, in its entirety, does not resolve a purported add or deduct to the Contract, in whole or in part, then both the Contractor and District agree to resolve each "Dispute" or "Claim" as close as possible to the conclusion of the event(s) and /or circumstance(s) giving rise to the "Dispute" or "Claim". In this way, the information and documentation available to both parties will be as fresh as possible and permit the best informed

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resolution to occur. Both parties acknowledge that their failure and/or refusal to follow this exclusive process will irreparably prejudice the other party and as such, should a party to this Agreement fail or refuse to comply with this exclusive process, any "Dispute" or "Claim" they may have shall be waived and forfeited.

This exclusive process set forth below, following both parties initially complying with Article 7, in its entirety, shall apply equally to the District as it does to the Contractor.

4.5.1 Disputes - Decision of Architect

A Dispute between the District and Contractor involving money or time, including those alleging an error or omission by the Architect, shall be referred initially to the Architect, through the Project Manager, for action as provided in Article 4.5.2. The Dispute shall be submitted within five (5) days of the Article 7 process not resolving a party's sought after relief. The Dispute shall contain a detailed narrative of the Dispute together with detailed estimates and/or calculations regarding costs and/or time, and all supporting information and documentation to prove entitlement to the relief sought by the Party submitting the Dispute.

4.5.2 Architect's Review

The Architect will review the Dispute and take one or more of the following actions in writing within ten (10) days of receipt of a Dispute: (1) request additional supporting data from the claimant; (2) recommend the rejection of the Dispute in whole or in part, stating reasons for rejection; (3) recommend approval of the Dispute in whole or in part, stating reasons for approval; or (4) suggest a compromise. Once the Architect takes action under Article 4.5.2 (2) and/or 4.5.2 (3), the parties shall, within five (5) days of the Architect's action notify each other in writing whether the Architect's recommended proposal is acceptable.

4.5.3 Documentation if Resolved

If a Dispute has been resolved pursuant to Article 4.5.2 (3) and/or 4.5.2 (4), by both parties agreeing to do so in writing, the Architect and/or Project Manager will prepare or obtain appropriate documentation in the form of either: a change order; partial change order; constructive directive; and/or compromise. If within the Vice Chancellor for Fiscal Services' limits of delegated authority, the Vice Chancellor for Fiscal Services will sign the documentation and have the documentation processed.

4.5.4 Actions if Not Resolved

If a Dispute has not been resolved pursuant to Article 4.5.2 (3) and/or 4.5.2 (4), the party submitting the Dispute shall, within five (5) days after a rejection of the Architect's written decision by either party, submit the Dispute as a Claim to the District's Vice Chancellor for Fiscal Services or the Contractor's President, as applicable, pursuant to Article 4.5.5, with a copy to the Architect and Project Manager.

4.5.5 Claims Resolution Process – Submission Of Claim

4.5.5.1 First Step

.1 Once a Claim has been submitted to the District's Vice Chancellor for Fiscal Services or the Contractor's President, as applicable, the Contractor and the District shall to try to resolve same amicably as follows.

.2 The Claim submitted shall contain all of the information and documentation required under Article 4.5.1.

.3 Within thirty (30) days of submission of the Claim, the other party shall prepare and send back to the Claim proponent a detailed written explanation either agreeing with, in whole or in part, and/or disputing, in whole or in part, the Claim.

.4 Within ten (10) days of this response, the District's Vice Chancellor for Fiscal Services and the President/owner of the Contractor shall meet face to face to try and resolve the Claim. If they agree to resolve the Claim in its entirety at the meeting, a change order, construction directive, and/or compromise, will be prepared. If within the Vice Chancellor for Fiscal Services' limits of delegated authority, the Vice Chancellor for Fiscal Services will sign the documentation and have the documentation processed. If the resolution exceeds the delegated authority of the Vice Chancellor for Fiscal Services, District Staff will place the matter on the Board of Education's agenda for consideration and action. If the Board agrees to resolve the Claim as presented, the Board will approve same and the documentation will be processed. If however the Board agrees to resolve only part of the Claim presented, a partial change order, construction directive and/or compromise will be prepared and the documentation processed. If only part of the Claim presented to the Board is approved, the proponent of the Claim is then required to take action under Article 4.5.5.2. or the remainder of the Claim is forever waived and forfeited. If the Board does not agree at all, the proponent of the Claim is then required to take action under Article 4.5.5.2. or the remainder of the Claim is waived and forfeited.

4.5.5.2 Second Step

.1 If the meeting between the District's Vice Chancellor for Fiscal Services and the President/owner of the Contractor does not resolve the Claim at all, or resolves only part of the Claim, and

if the proponent of the Claim wishes to pursue the remainder, then the proponent of the Claim must send a written demand for mediation to the other party as required below.

.2 Such mediation shall take place within thirty (30) days of the proponent requesting it in writing. The costs thereof shall be shared equally by the parties.

.3 A Mediator must have substantial experience mediating, arbitrating and/or litigation public works K-14 construction matters.

.4 The proponent of the mediation must send out written demand for mediation within five (5) days of the meeting between the District's Vice Chancellor for Fiscal Services and the President/owner of the Contractor concluding. With the written demand for mediation, the party demanding mediation must include therein the names of six (6) such mediators. The opponent shall within five (days) of receipt of the written demand for mediation either select one, or provide the names of six (6) other such mediators. If the opponent fails to do so, then the proponent shall immediately identify the mediator to be used. If the party demanding mediation fails to identify in its demand six (6) such mediators, then the other party shall select such a mediator.

.5 If the proponent of the Claim fails to invoke the mediation required by this Article within the time required, then the Claim, or remaining portion thereof, is forever waived and forfeited.

.6 If mediation resolves the Claim, in whole or in part, a change order, partial change order, constructive directive, and/or compromise will be prepared. If within the Vice Chancellor for Fiscal Services' limits of delegated authority, the Vice Chancellor for Fiscal Services will sign the documentation and have the documentation processed. If the resolution exceeds the delegated authority of the Vice Chancellor for Fiscal Services, District Staff will place the matter on the Board of Education's agenda for consideration and action. If the Board agrees to resolve the Claim as presented, the Board will approve same and the documentation will be processed. If however the Board agrees to resolve only part of the

Claim presented, a partial change order, construction directive and/or compromise will be prepared and the documentation processed. If only part of the Claim presented to the Board is approved, the proponent of the Claim is then required to take action under Article 4.5.5.3. or the remainder of the Claim is forever waived and forfeited. If the Board does not agree at all, the proponent of the Claim is then required to take action under Article 4.5.5.3. or the remainder of the Claim is forever waived and forfeited.

4.5.5.3 -The Exclusive Resolution Process is a Condition Precedent to Arbitration

.1 If mediation fails to resolve the Claim within thirty (30) days of the demand for mediation, or such additional period of time as both parties agree to in writing, then if a party wishes not to forfeit a Claim, or part thereof, a party must file a demand for arbitration. The process set forth in Article 4.5 is a condition precedent to the filing of any demand for arbitration between District and the Contractor.

.2 If the Claim is not resolved through the process outlined in Article 4.5 above, then the proponent of a Claim shall within five (5) days from the conclusion of the Mediation, send a written notice and demand for binding arbitration to either: the American Arbitration Association, JAMS Dispute Resolution, or ADR, with a copy to the DISTRICT and the Project Manager. All supporting documents and data in support of the Claim shall accompany the written notice and demand for arbitration with copies of all supporting documents and data thereof simultaneously sent to: the arbitration company selected; the District; and the Project Manager. The hearing locale for any arbitration shall be in Riverside County or Los Angeles County, California, unless otherwise agreed by the parties in writing. If both parties agree in writing, they may elect to use an independent arbitrator or an arbitrator from another alternative dispute resolution provider.

.3 The arbitration shall be held before a single arbitrator who has arbitrated more than 15 California public works construction disputes and must be mutually agreed to by both parties. The Arbitration must be held and concluded within sixty (60) days of the written demand for Arbitration, unless the Contractor and District agree otherwise in writing.

.4 The Arbitrator has no power to fashion a remedy that is solely “related to the Contract.” Rather, each of the Arbitrator’s decisions and award(s), interim and/or final, shall be in writing, shall set forth statements of fact and conclusions of law explaining how and why the each item of the decision/award was reached, shall be supported by substantial evidence, shall be supported by applicable law, and shall otherwise comply with the requirements of Code of Civil Procedure Section 1296.

.5 The fees of the Arbitrator and the administrative costs of the arbitration shall be shared equally between the parties, and the arbitrator has no power whatsoever to alter that sharing arrangement.

.6 Provided the Arbitrator has issued an award in compliance with the requirements of Articles 4.5.5.3.1 through 4.5.5.3.7, the Final Award is binding and all appellate rights are waived. Any judicial review of such an award is limited to the circumstances described herein for the Arbitrator’s non-compliance with these requirements.

.7 The Arbitrator’s Final Award shall be reflected in an additive or deductive Change Order and/or Partial Change Order, or, in the DISTRICT’S discretion, payment will be made as a Compromise as a claim on the Contract pursuant to the DISTRICT’S authority under Public Contract Code Section 9201. The CONTRACTOR’S performance bond surety shall participate any binding arbitration subject to the requirement of these Articles as a party thereto, and shall be bound by the Arbitrator’s Final Award, just as the District and Contractor shall be bound thereto.

4.5.5.4 The Exclusive Resolution Process – Non-Applicability:

The procedures set forth in Article 4.5 shall not usurp District's authority, and do not apply to:

- .1 determine what work is constructed, will be constructed, or whether the work complies with the Contract for purposes of accepting the work;
- .2 the rights and obligations the District has as a public entity, such as, but without limitation, the revocation of pre-qualification status, barring a bidder from District contracts, and, without limitation, the imposition of penalties or forfeitures prescribed by statute or regulation and imposed by a governmental body upon a Contractor. However, penalties/interest/fees imposed against a governmental body, such as the District, or the Contractor, as applicable, by statutes such as Public Contract Code Sections 20104.50 or 7107, are encompassed by the mandatory dispute resolution provisions of this Contract;
- .3 personal injury, wrongful death, or property damage, claims;
- .4 latent defect, breach of warranty, or breach of guarantee to repair claims;
- .5 stop notices; or
- .6 District's rights and remedies as set forth elsewhere in this Contract and/or under applicable law.

4.5.6 Continuing Contract Performance

Pending final resolution of a Claim, including, negotiation, mediation, or litigation, the Contractor shall proceed diligently with performance of the Contract, and the District shall continue to make any undisputed payments in accordance with the Contract. If the dispute is not resolved, Contractor agrees it will neither rescind the contract nor stop the progress of the work

4.5.7 Claims for Concealed or Unknown Conditions

If conditions are encountered at the Site which are subsurface or otherwise concealed physical conditions, which differ materially from those indicated in the Contract, or unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than ten (10) calendar days after first observance of the conditions. The Architect will promptly investigate such conditions, and if they differ materially and cause an increase or decrease in the Contractor's cost of, time required for, or performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum, Contract Time, or both. If the Architect determines that the conditions at the Site are not materially different from those indicated in the Contract and that no change in the terms of the Contract is justified, the Architect shall so notify the District and Project Manager in writing, stating the reasons. The Project Manager shall notify the Contractor in writing of the Architect of Record's determination. Claims by either party in opposition to such determination must be made within ten (10) days after the Architect has given notice of the decision pursuant to Article 4.5.5. If the District and the Contractor cannot agree on an adjustment in the Contract Sum or the Contract Time, the adjustment shall be referred to the Architect for initial determination, subject to other proceedings pursuant to Article 4.5.10.

4.5.8 Claims for Additional Cost

If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Each Claim for additional cost must include any claim for additional time and its associated costs. Prior notice is not required for claims relating to an emergency

endangering life or property arising under Article 10.4.1. If the Contractor believes additional cost is involved for reasons, including, but not limited to the following: a written interpretation from the Architect, an order by the District to stop the Work where the Contractor was not at fault, a written order for a minor change in the Work issued by the Architect, failure of payment by the District, termination of the Contract by the District, the District's suspension of the Work, or other reasonable grounds, a claim shall be filed in accordance with the procedure established herein.

4.5.9 Claims for Extension of Time

If Contractor and District cannot agree upon an extension of time, whether compensable or not, then Contractor must have first completed the procedures set forth in Article 8.4. Upon completion of the procedures set forth under Article 8.4, Contractor must then comply with the requirements of Article 4.5.5.

4.5.10 No Limitation on District's Rights and Remedies as a Public Entity

The exclusive resolution process set forth in Articles 4.5 through 4.5.9 shall not in any way impair the rights and remedies set forth elsewhere for a party in this Agreement. Nor shall it in any way impair the rights and remedies of the District as a public entity such as, but without limitation, to withhold money pursuant to a stop notice, a labor code violation, withholding of retention, withholding of monies against progress payments, etc., all such rights and remedies being controlled by statute and/or applicable law.

ARTICLE 5

5.1 SUBCONTRACTORS

5.1.1 Sub-contractual Relations

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the same obligations and responsibilities, assumed by Contractor pursuant to the Contract Documents. Each subcontract agreement shall preserve and protect the rights of the District and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, including without limitation, the General Conditions, Supplemental Conditions, and portions of the Technical Specifications applicable to the Subcontractor's work and/or sub-subcontractor's work. The Contractor shall ensure that all Subcontractors and sub-subcontractors are all bound to the dispute resolution provisions found in Articles 4.5 through 4.5.10 of these General Conditions. Subcontractor the terms and conditions of the proposed subcontract agreement, which may be at variance with the Contract Documents. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

5.1.2 Subcontractor Licenses

All subcontractors shall be properly licensed by the California State Licensing Board.

5.1.3 Substitution of Subcontract

Substitution of Subcontractors shall be permitted only as authorized under Public Contract Code sections 4107 et. seq. Any substitutions of Subcontractors shall not result in any increase in the Contract Price or result in the granting of any extension of time for the completion of the Project.

5.1.4 Contingent Assignment of Subcontracts and Other Contracts

Each subcontract and other contract or agreement for any portion of the Work is hereby assigned by the Contractor to the District provided that:

- (a) Such assignment is effective only after termination of this contract with the Contractor by the District as provided herein and only for those subcontracts and other contracts and agreements that the District accepts by notifying the Subcontractor or Material man (as may be applicable) in writing; and
- (b) Such assignment is subject to the prior rights of the Surety(ies) obligated under the Payment Bond and Performance Bond.

The Contractor shall include adequate provisions for this contingent assignment of subcontracts and other contracts and agreements in each such document.

ARTICLE 6

6.1 DISTRICT'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.1 Separate Contracts

- (a) District reserves the right to let other contracts in connection with this Work. Contractor shall afford other contractors reasonable opportunity for (1) introduction and storage of their materials; (2) access to the Work; and (3) execution of their work. Contractor shall properly connect and coordinate its work with that of other Contractors.
- (b) If any part of Contractor's Work depends on proper execution or results of any other Contractor, the Contractor shall inspect and within twenty-four hours or less, report to Project Manager, in writing, any defects in such work that render it unsuitable for proper execution of Contractor's work. Contractor will be held accountable for damages to District for that work which it failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute its acceptance of other contractors' work as fit and proper for reception of its work, except as to defects, which may develop in other contractors' work after execution of Contractor's work.
- (c) To ensure proper execution of its subsequent Work, Contractor shall measure and inspect Work already in place and shall at once report to the Project Manager in writing any discrepancy between executed Work as built and the Contract Documents.
- (d) Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by District in prosecution of the Project and the potential impact of such work on Contractor's schedule.

(e) Nothing herein contained shall be interpreted as granting to Contractor the exclusive occupancy at the site of Project. Contractor shall not cause any unnecessary hindrance or delay to any other Contractor working on the Project Site. If execution of any contract by the District is likely to cause interference with Contractor's performance of its contract, District shall decide which Contractor shall cease work temporarily and which contractor shall continue, or whether work can be coordinated so that contractors may proceed simultaneously.

(f) District shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from award or performance or attempted performance of any other contract or contracts at the Project, or caused by any decision or omission of District respecting the order of precedence in performance of contracts.

(g) Should Contractor, and/or any one performing under the Contractor fail to prosecute the work promptly, competently and/or as directed by a Construction Directive, District has the right and remedy to use its own forces and/or a third party contractor to remedy the Contractor's breach as declared in writing by the District without terminating this Contract. Upon the performance of such Work by its own forces and/or a third party contractor, District shall back charge the Contractor and/or set off from monies in the Contract and/or held as retention for the costs thereof. Should Contractor dispute the cost thereof, Contractor shall proceed by way of the dispute resolution provisions found in Articles 4.5 through 4.5.10 of these General Conditions.

(h) If any delays should arise from another Contractor working onsite under a different phase, Contractor's sole remedy for damages shall be against the contractor who caused such damage and not the District. Contractor shall provide access to other contractors for other phases as necessary to prevent delays and damages to other contractors working on other phases of construction.

6.1.2 Designation as Contractor

When separate contracts are awarded to contractors on the Campus, the term "Contractor" shall be the person, firm, corporation or entity with whom the District has entered into a Contract.

6.1.3 Contractor Duties

The Contractor shall have overall responsibility to coordinate and schedule Contractor's activities with the activities of the District's own forces and District's other Contractors. Additionally, Contractor shall coordinate with the Project Manager, Architect and District inspector to ensure timely and proper progress of work.

6.2 CONSTRUCTIVE OWNERSHIP OF MATERIAL

Upon commencement of Work, the Contractor becomes the constructive owner of the improvements, material and equipment on its specific portion of the Project site. Contractor must ensure proper safety and storage of all materials and assumes responsibility of that portion of the Project site. All risk of loss or damage shall be borne by Contractor during the Work until the date of Completion. Contractor must carry adequate insurance in case of calamity and is not entitled to rely on the insurance requirements as set forth in this agreement as being adequate coverage in case of calamity.

ARTICLE 7

7.1 CHANGES

7.1.1 No Changes Without Authorization

There shall be no change whatsoever in the drawings, specifications, or in the Work, without an executed Change Order, Partial Change Order, Construction Directive, Compromise, or order by the Architect for a minor change in the Work as herein provided. District shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District has authorized same and the cost thereof approved in writing by a signed Change Order, signed Partial Change Order, signed Construction Directive, or signed Compromise. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in a signed Change Order, signed Partial Change Order, signed Construction Directive, and/or signed Compromise. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications. Notwithstanding anything to the contrary in this Article 7, all Change Orders, Partial Change Orders, Construction Directives, and/or Compromises, shall be prepared and issued by the Project Manager, and approved by the Architect and Inspector of Record, and signed by the District's Vice Chancellor for Fiscal Services (if within the delegated authority) or the Board if the amount is in excess of the Vice Chancellor for Fiscal Services delegated authority. Contractor waives any claim of additional compensation for such additional work performed and/or additional time that is not in compliance with this Article.

Should any Change Order, Partial Change Order, Construction Directive, and/or Compromise result in an increase in the Contract Price, the cost of such Change Order, Partial Change Order, Construction Directive, and/or Compromise shall be agreed to, in writing, in advance by Contractor and District. In the event that Contractor proceeds with any change in Work without first notifying District and obtaining the District's written approval of a Change Order, Partial Change Order, Construction Directive, and/or Compromise, Contractor waives any claim of additional compensation and/or additional time for such alleged additional work.

Contractor understands, acknowledges, and agrees that the reason for this notice requirement is so that District may have an opportunity to analyze the work and decide whether the District shall proceed with the change or alter the Project so that such change in the Work becomes unnecessary.

7.2 CHANGE ORDERS ("CO") & PARTIAL CHANGE ORDERS ("PCO")

A CO is a written instrument prepared by the Project Manager with input from the Architect and signed by the District (either the Vice Chancellor for Fiscal Services or the District's Governing Board), the Contractor, the Architect, and the Riverside County stating their complete agreement upon all of the following:

- (a) A description of a change in the Work;
- (b) The amount of the adjustment in the Contract Sum, if any; and
- (c) The extent of the adjustment in the Contract Time, if any.

A PCO is a written instrument prepared by the Project Manager with input from the Architect and signed by the District (either the Vice Chancellor for Fiscal Services or the District's Governing Board), the Contractor, the Architect, and the Riverside County (Planning and Engineering Department) stating their agreement in part upon any of the following:

- (a) A description of a change in the Work;
- (b) The amount of the adjustment in the Contract Sum, if any; and
- (c) The extent of the adjustment in the Contract Time, if any.

7.3 CONSTRUCTION DIRECTIVES & COMPROMISES

7.3.1 Definition

A Construction Directive and/or Compromise is a written order prepared by the Project Manager and signed by the District's Vice Chancellor for Fiscal Services, Contractor and the Architect, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The District may so order, without invalidating the Contract, changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions within. If applicable, the Contract Sum and Contract Time will be adjusted accordingly. A Constructive Directive may also be issued that states that no change in price or time is warranted. Contractor shall immediately comply with such a directive. However, if Contractor believes such directive does warrant a change in price and/or time, Contractor agrees to pursue relief via the change order and partial change order provisions of this Article and if still unresolved, then to pursue relief pursuant to Article 4.5 through 4.5.10 of these General Conditions. In the case of a Construction Directive being issued, Contractor must commence Work immediately or delays from failure to perform pursuant to the Construction Directive shall be the responsibility of the Contractor.

7.3.2 Used to Direct Contractor

A Construction Directive shall be used in the absence of agreement on the terms of a CO, PCO or Compromise. A copy of a proposed form is provided at the end of this Article.

7.4 REQUEST FOR INFORMATION ("RFI")

7.4.1 Definition

An RFI is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item that the Contractor believes is not clearly shown or called for in the drawings or specifications, or to address problems that have arisen under field conditions.

7.4.2 Scope

The RFI shall reference all the applicable Contract Documents including specification section, detail, page numbers, drawing numbers, and sheet numbers, etc. The Contractor shall make suggestions on how to resolve, and interpretations of the issue raised, by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents.

7.4.3 Response Time

The Contractor must submit an RFI sufficiently in advance of when the Work related thereto is scheduled to begin in order to provide the District and the Architect with sufficient time to respond to the RFI after receiving the RFI and before such Work is then currently scheduled to be performed. If the Architect's response results in a change in the Work, then such change shall be effectuated by a written CO, PCO, or Construction Directive, if appropriate. If the Architect cannot respond to an RFI within a reasonable time, the Contractor, upon receiving a Construction Directive from the Project Manager, must commence Work immediately or the delays and costs related to failure to perform shall be the responsibility of the Contractor. Costs and/or time related to this work will be resolved initially pursuant to Section 7.7, and if not resolved thereby, then by the dispute resolution process set forth in these General Conditions. If the Architect cannot respond to the RFI within a reasonable time, not to exceed ten (10) working days, the Architect shall notify the Contractor, with a copy to the Inspector and the District, of the amount of time that will be required to respond as defined in Division 1, General Requirements.

7.4.4 Costs Incurred

The Contractor shall be responsible for any costs incurred for professional services, which shall be deducted from the next progress payment, if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party making such request. District, at its sole discretion, shall invoice Contractor for all such professional services arising from this Article and Contractor shall immediately pay same to the District. If not immediately paid, the District will back charge and/or off set against any monies in the Contract and/or held as retention the cost thereof.

7.5 REQUEST FOR PROPOSAL (“RFP”)

7.5.1 Definition

An RFP is a written request prepared by the Project Manager requesting the Contractor to submit to the District, Project Manager and the Architect an estimate of the effect of a proposed change to the Contract Price and/or the Contract Time.

7.5.2 Scope

An RFP shall contain adequate information, including any necessary drawings and specifications, to enable Contractor to provide the cost breakdowns required by Article 7.7. The Contractor shall not be entitled to any additional compensation for preparing a response to an RFP, whether ultimately accepted or not.

7.6 CHANGE ORDER REQUEST (“COR”)

7.6.1 Definition

A COR is a written request prepared by the Contractor requesting that the District and the Architect issue a CO based upon a proposed change called for in an RFP.

7.6.2 Changes in Price

A COR shall include breakdowns per Article 7.7 to validate any change in Contract Price due to proposed change.

7.6.3 Changes in Time

A COR shall also include any additional time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in 3.7.1, Contractors Construction Schedule, Requirements of the General Contract. Any changes in time will be granted only if there is an impact to a critical path activity. If Contractor fails to request a time extension in a COR, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7 COST OF CHANGE ORDERS (“CO”), PARTIAL CHANGE ORDERS (“PCO”) AND/OR COMPROMISES

7.7.1 Scope

Within ten (10) days after a request is made for a change that impacts the Contract Sum as defined in Contract Documents, the critical path, or the Contract Time, the Contractor shall provide the District, Project Manager and the Architect, with a written estimate of the effect of the proposed change order upon the Contract Sum and the actual cost of construction, which shall include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices, and wage rates required for the change, and the effect upon the

Contract Time of such proposed change order. Changes may be made by District by an appropriate written CO, PCO, Compromise, or, at the District's option, such changes shall be implemented immediately upon the Contractor's receipt of an appropriate written Construction Directive.

Where the District and the Contractor cannot agree in full on a Change Order Request, but agree in part, the Project Manager shall prepare a PCO reflecting the extent of the Contractor's and District's agreement and the Contractor shall then proceed with the change as reflected therein. There is no need for the Contractor to reserve any rights to the balance of the proposed change order request not agreed to as the Contractor's sole remedy in that event is to immediately proceed with the filing of a Dispute/Claim under Article 4.5

District may, as provided by law and without affecting the validity of this Agreement, order changes, modification, deletions and extra work by issuance of written CO, PCO, Compromise, or Construction Directive from time to time during the progress of the Project, contract sum and/or time being adjusted accordingly. All such work shall be executed under conditions of the original Agreement except that any extension of time caused thereby shall be adjusted at time of ordering such change. District has discretion to order changes on a "time and material" basis with adjustments to time made after Contractor has justified through documentation the impact on a critical path of the Project.

7.7.2 Determination of Cost

The amount of the increase or decrease in the Contract Price from a CO, PCO, Compromise, or Construction Directive, if any, shall be determined in one or more of the following ways as applicable to a specific situation:

- A. If the change in or addition to the Work will result in an increase in the contract sum, the Project Manager shall have the right to require the performance thereof in any of the following ways, at their sole election:
 1. By agreed unit prices, if unit prices are required by the District's bid form and provided with Contractor's bid;
 2. By proposal and acceptance of an agreed upon itemized lump sum;
 3. On a time and materials basis; or
 4. Project Manager's estimate of the value of the change.

- B. If the District and/or Project Manager elects to have the change in the Work performed on a lump sum basis, such election will be based on a lump sum proposal that shall be submitted by the Contractor within five (5) days of the Project Manager's request therefore. Request for a lump sum proposal shall not be deemed an election to have the Work performed on a lump sum basis. The Contractor's proposal shall be completely itemized and segregate the cost of work by labor, materials for the various components of the change, taxes, and equipment (no aggregate or lump sum total will be acceptable on any of the above) and shall be accompanied by like kind signed proposals of any subcontractors which will perform any portion of the change, and of any persons who will furnish materials or equipment for incorporation therein. The proposal shall also include the Contractor's estimate of the time required to perform said changes or additional work. Costs of preparing the proposal shall not be compensable.

- C. The term "extra work" as used shall mean actual costs incurred by the Contractor and each Subcontractor regardless of tier involved, and shall be limited to the following (to the extent the Contractor demonstrates that they were actually incurred):
 1. Actual straight-time wages of salaries for employees employed at the Project site, or at fabrication sites off Project site, in the direct performance of the extra work. Wages shall be based on verified

prevailing wage rates for the area and job classification or verified collective bargaining agreements for the area.

2. Actual Fringe Benefits and Payroll Taxes for employees employed at the Project site, or at fabrication site off the Project site, in the direct performance of the extra work. Benefits and Taxes

shall be based on verified prevailing wage rates for area and job classification or verified collective bargaining agreements for area.

3. Actual Overtime wages or salaries specifically authorized in writing by the District or Project Manager, for employees employed at the Project site, or at fabrication sites off Project site, in the direct performance of the extra work. Wages shall be based on verified prevailing wage rates for area and job classification or verified collective bargaining agreements for area.
4. Actual Overtime Fringe Benefits and Payroll Taxes specifically authorized in writing by the District or Project Manager, for employees employed at the Project site, or at fabrication sites off Project site, in the direct performance of the extra work. Wages shall be based on verified prevailing wage rates for area and job classification or verified collective bargaining agreements for area.
5. Itemized costs of Materials and consumable items, which are furnished and incorporated into the extra work, as approved by the District or Project Manager. Such costs shall be charged at the lowest price available to the Contractor or its subcontractors. In no event shall such costs exceed verified competitive costs obtainable from other contractors, subcontractors, suppliers, manufacturers, and/or distributors in the area of the project site. All discounts, rebates, and refunds and all returns from sale of surplus, materials and consumable items shall accrue to the Project Manager and Contractor shall make provisions so that they may be obtained.
6. Sales taxes on the costs of materials and consumable items, which are incorporated into and used in the performance of the Extra Work. In no case shall the sales taxes exceed the amount required by the Project location.
7. Rental charges for necessary machinery and equipment, whether owned or hired, as authorized in writing by the District or Project Manager, exclusive of hand tools, used directly in the performance of the Extra Work. Such rental charges shall in no case exceed the current California Department of Transportation's published equipment rental rates for the area of the Project. The charges for the equipment shall be for the actual time of use and shall not be subjected to minimum hourly charges without the approval of the Project Manager.
8. Actual additional costs of royalties and permits if required due to the performance of the Extra Work.
9. The cost of for all insurances required, including but not limited to general liability, auto, and workers compensation, and Bonds shall not exceed one percent (1%).

- E. The term Contractor Fee shall mean the full amount of compensation, both direct and indirect (including without limitation all overhead and profit), to be paid to the Contractor for its own Work and the Work of all Subcontractors, for all expenses not included in the Cost of Extra Work, whether or not such costs and expenses are specifically referred to in D above. The Contractor Fee shall not be compounded. The Fee shall be calculated on pre marked up costs. The Contractor Fee shall be computed as follows:

1. Fifteen percent (15%) of the cost of that portion of the Extra Work to be performed by the Contractor with its own forces.
2. Fifteen percent (15%) of the cost of that portion of the Work to be performed by a subcontractor with its own forces, plus five percent (5%) for the Contractor.
3. Total combined Contractor and Subcontractor Fee shall not exceed twenty percent (20%) regardless of how many tiers of Subcontractors may be involved. If more than one tier of Subcontractors are involved, than the Subcontractor Fifteen percent (15%) shall be divided between all such Subcontractor tiers as the Contractor deems appropriate.

- F. For work to be deleted, the reduction of the Contract sum shall be computed on the basis of one of the following:
1. By agreed unit prices, if unit prices are required by the District's bid form and provided with Contractor's bid;
 2. By proposal and acceptance of an agreed upon itemized lump sum; or
 3. On a time and materials basis; or
 4. Project Manager's estimate of the value of the change.
- G. In the event any one Change involves both Extra Work and Deleted Work in the same portion of the Work, the Contractor Fee will not be allowed if the deductive cost exceeds the additive cost. If the additive cost exceeds the deductive cost, the Contractor Fee will be allowed only on the difference between the two.
- H. If the District and/or the Project Manager elects to have the change in the Work performed on a time and material basis, the same shall be performed, whether by the Contractor's forces or the forces of any of its subcontractors or sub-subcontractors, at actual costs to the entity or entities performing the change in the Work (without any charge for administration, clerical expense, supervision or superintendence of any nature whatsoever, including foremen, or the costs of use or rental of tools or plant). No other mark-ups shall be allowed hereunder. The Contractor shall submit to the Project Manager verified daily detailed and accurate records itemizing each element of cost and shall provide substantiating records and documentation, including time cards and paid invoices. Tickets, to include the identification number assigned to the change in the Work, the location and description of the change in the Work, the classification of labor employed (and names and social security numbers), the material used, the equipment rented (not tools) and such other evidence of cost as the Project Manager may require. The District and/or Project Manager may require authentication of all time and material tickets and invoices by persons designated by the Project Manager for such purpose. The failure of the Contractor to secure any required authentication shall, if the District and/ Project Manager elects to treat it as such, constitute a waiver by the Contractor of any claim for the cost of that portion of the change in the Work covered by a non-authenticated ticket or invoice; provided, however, that the authentication of any such ticket or invoice by the District shall not constitute an acknowledgment by the District that the items thereon were reasonably required for the change in the Work. Such records and documentation shall be submitted to the Project Manager on a daily basis.
- I. No overhead and profit will be paid by the District on account of a change in the Work except as specifically provided in this section. Overhead and Profit shall be deemed to include all costs and expenses, including site overhead and home office overhead, which the Contractor or any of its subcontractors may incur in the performance of the change in the Work and which are not otherwise specifically recoverable by them pursuant to this Article.

7.7.3 Format for Proposed Cost Change

The following requirements format shall be used as applicable by the District and the Contractor to communicate proposed additions and deductions to the Contract.

- Material (attach itemized quantity and unit cost plus sales tax)
- Labor (attach itemized hours and rates)
- Equipment (attach invoices)

- If Subcontractor performed Work overhead and profit not to exceed fifteen percent (15%).
- General Contractor's Overhead and Profit: Not to exceed fifteen percent (15%) for Contractor self-performed work. Not to exceed five percent (5%) mark-up for work performed by Subcontractor. If work was performed by Contractor and Subcontractors, cumulative mark-up shall not exceed a cumulative total of twenty percent (20%).
- Liability and Property Damage Insurance, Worker's, Compensation Insurance, Social Security, and Unemployment Taxes, not to exceed as follows: FICA @ **6.2%**- with a wage ceiling of \$84,900; Medicare @ **1.45%**- no wage ceiling; FUTA @ **.8%**- with a wage ceiling of \$7,000; ETT and SUI @ **2.3%**- with a wage ceiling of \$7,000; Workers' Compensation @ **5.94%**; Liability and Property Damage @ **2.5%**. {With OCIP, only offsite Worker's Compensation and liability is allowable and Contractor's personal property} **Total not-to-exceed is 19.19%**. *(Note: Modifications to these percentages will be evaluated and possibly modified only on a case-by-case basis and only after proper proof of alternate percentages are documented and approved in advance. In addition, as wage ceilings are met, those corresponding percentages must drop from the "burden" calculations).*
- Bond not to exceed one percent (1%)
- **Schedule Impact (Time)**

The undersigned Contractor approves the foregoing Change Order, Partial Change Order, Compromise, or Construction Directive as to the changes, if any, and the contract price specified for each item and as to the extension of time allowed, if any, for completion of the entire work on account of said Change Order, Partial Change Order, Compromise, or Construction Directive, and agrees to furnish all labor, materials and service and perform all work necessary to complete any additional work specified therein, for the consideration stated herein. It is understood that said Change Order, Partial Change Order, Compromise, or Construction Directive, shall be effective only when approved as stated in these General Conditions.

It is expressly understood that the value of such extra Work or changes, as determined by any of the aforementioned methods, expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project which shall exclude Contractor and their subcontractor's cost of insurance. Any costs, expenses, damages or time extensions not included are deemed waived.

The Contractor expressly acknowledges and agrees that any change in the Work performed shall not be deemed to constitute a delay or other basis for claiming additional compensation based on theories including, but not limited to, acceleration, suspension or disruption to the Project.

Time and Material Added Work. Notwithstanding the failure of the District and the Contractor to agree as to the cost of the proposed change order, the Contractor, upon written order from the District, shall proceed immediately with the changed work. A Construction Directive (CD) signed by the District shall be used for this written order. At the start of each day's work on the change, the Contractor shall notify the Project Manager and Inspector of Record in writing as to the size of the labor force to be used for the changed work and its location. Failure to so notify may result in the non-acceptance of the costs for that day. At the completion of each day's

work, the Contractor shall furnish to the Project Manager a detailed summary of all labor, materials, products, equipment, apparatus, and the like, employed in the changed work. The Project Manager will compare his/her records with Contractor's daily summary and may make any necessary adjustments to the summary. After the Project Manager and the Contractor agree upon and sign the daily summary, the summary shall become the basis for determining costs for the additional work. The sum of these costs when added to an appropriate mark-up will constitute the payment for the changed work. The District, however, may make subsequent adjustments, based on later audits. When changed work is performed at locations away from the job site, the Contractor shall furnish in lieu of the daily summary, a summary submitted at the completion of the work containing a detailed statement of labor, materials, products, equipment, apparatus, and the like, used in the work. This latter summary shall be signed by the Contractor who shall certify thereon under penalty of perjury that the information is true, and the costs are as covered in the Contract Documents. If changed work is to be paid on the basis of time and materials, a credit for deleted contract work shall be included and deducted from the total cost of the work before mark ups are added. Mark-up shall be as covered in the Contract Documents.

The Contractor shall maintain and furnish, on demand of the District, itemized statements of cost from all vendors and subcontractors who perform changed work or furnished materials and equipment for such work. The vendors and the subcontractors must sign all statements.

7.7.4 Deductive Change Orders

All deductive Change Order(s) must be prepared pursuant to Contract Documents. Contractor will be allowed a maximum of 5% total profit and overhead. If subcontractor work is involved, subcontractors shall be entitled to a maximum of 5% profit and overhead on the deducted work. Any deviation from this Article shall not be allowed.

7.7.5 Discounts, Rebates, and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials, products, equipment, apparatus, and the like, shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omissions in the Work as provided herein.

7.7.6 Accounting Records

With respect to portions of the Work performed by Change Order, Partial Change Order, Compromise, or Construction Directive, on a time-and-materials, unit-cost, or similar basis, the Contractor shall keep and maintain cost-accounting records satisfactory to the District, which shall be available to the District on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents. Any Contractor or Contractor's Subcontractor MUST notify the Project Manager before each day of time and material commencement and again at the completion. All time and material tickets must be presented to the Project Manager daily for signature for verification of work performed and time. Project Manager MUST verify all time and material work and will not sign the time and material ticket if the Contractor or their Subcontractor has not properly notified the Project Manager, as stated above. All claims shall follow the same procedure, as noted above.

7.7.7 Notice Required

If the Contractor desires to make a claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the District pursuant to the Contract Documents and this Article. No claim shall be considered unless first made in accordance with this subArticle. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. A Change Order, Partial Change Order, Compromise, or Construction Directive shall authorize any change in the Contract Price or extension of the Contract Time resulting from such claim.

7.7.8 Applicability to Subcontractors

Any requirements under this Article 7 shall be equally applicable to any Change Order, Partial Change Order, Compromise, or Construction Directive, issued to Subcontractors by the Contractor to the same extent required by the Contractor.

7.7.9 Alteration to Change Order, Partial Change Order, Compromise, or Construction


Directive Change Order Language

Contractor shall not alter or reserve time in a Change Order, Partial Change Order, Compromise, or Construction Directive, as all rights are reserved and subject to the dispute resolution process set forth in Articles 4.5 through 4.5.10. Contractor shall execute all agreed to Change Orders, and/or execute all Partial Change Orders, Compromises, or Construction Directives, to the extent Contractor agrees therewith, and then proceed under Article 4.5 with proper notice. If Contractor intends to reserve time, without an approved CPM schedule prepared pursuant to the Contract Documents then Contractor may be prosecuted pursuant to the False Claim Act.

[Forms are found on the following pages]

<u>CONSTRUCTION DIRECTIVE</u>		No. 00
Project:	Date:	
Owner:	Project No.:	
Project Manager:	File No.:	
Architect:	SBCCD File No.:	
<u>DESCRIPTION OF WORK TO BE PERFORMED:</u>		
Narrative:		
Attachment(s):		
Reason:		
Code Legend:		
Initiated By:		
<u>ACTION TO BE TAKEN:</u>		
<input type="checkbox"/> Action 1: Make the described change in work at no change in the contract sum and no change in the contract time of completion.		
<input type="checkbox"/> Action 2: Promptly advise the Architect as to the credit or cost proposed for the described change. This is not an authorization to proceed with the change.		
<input type="checkbox"/> Action 3: In order to expedite the work and avoid or minimize delays in the work, which may affect Contract Sum or Contract Time, the Contract Documents are hereby amended as described above. Proceed with this work promptly, on a time and material basis, not to exceed \$ <u> dollars and 00/100</u> Refer to Articles 7 and 7.7.6 of the General Conditions.		
<input type="checkbox"/> Action 4: In order to expedite the work and avoid or minimize delays in the work, which may affect Contract Sum or Contract Time, the Contract Documents are hereby amended as described above. Proceed with this work promptly. Submit costs for the work involved and change in contract time (if any). Work shall be carried out in accordance with Article 7 of the General Conditions unless noted otherwise.		
<input type="checkbox"/> Action 5: The Contract Time is proposed to (be adjusted) (remain unchanged). The proposed adjustment, if any, is <u>an increase</u> of N/A days) (a decrease of N/A days).		
<u>APPROVALS:</u>		
Architect:		
By: _____	Date: _____	
Project Manager:		
By: _____	Date: _____	
Owner:		
By: _____	Date: _____	
Contractor:		
By: _____	Date: _____	
GENERAL CONDITIONS		

SAN BERNARDINO COMMUNITY COLLEGE DISTRICT																						
Capital Facilities Program Management																						
Project Number																						
CHANGE ORDER/PARTIAL CHANGE ORDER																						
Original Contract Amount:	\$0.00																					
Amount of Previous Contract Amendments:	\$0.00																					
Amount of Previous Change Orders:	\$0.00																					
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">School Name:</td> <td style="width: 50%;">Date:</td> </tr> <tr> <td>Project Description:</td> <td>Contract No.:</td> </tr> <tr> <td>To (Contractor):</td> <td>Attn:</td> </tr> </table>			School Name:	Date:	Project Description:	Contract No.:	To (Contractor):	Attn:														
School Name:	Date:																					
Project Description:	Contract No.:																					
To (Contractor):	Attn:																					
You are hereby directed to make the following changes in the above reference contract for:																						
Item No.:	Refer to attachments	Reference RFP No. Refer to attachments																				
Description of Work:																						
<p>Refer to attached Project Memo No. Contract Change Order No. : Item 1.1 - 1.9.</p> <p>TOTAL COST of CONTRACT CHANGE ORDER : \$0.00</p> <p>Reason for Change: Site Cost, Unforeseen Field Condition Site Cost, Error And/or Omission Building Cost, District Added or Deleted/Reduced Scope</p> <p>Initiator of Change: Contractor Request for Information</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">The original Base Contract Sum was:</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>Net change by previous authorized Contract Amendment(s):</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>The contract AMOUNT due to No. will be increased by:</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>The revised BASE Contract Sum:</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>Net change by previous authorized Change Order(s):</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>The Contract Sum including previous authorized Change Orders:</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>The revised Contract Amount, including this Contract Change Order is, therefore:</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>The contract TIME due to No. will be increased by:</td> <td style="text-align: right;">0 calendar days.</td> </tr> <tr> <td colspan="2">The revised Contract Completion Date, including this Contract Change Order is, therefore</td> </tr> <tr> <td>SBCCD Change Order No.</td> <td>includes Item Number(s): 1.1 through 1.9</td> </tr> </table> <p>This Contract Change Order is not valid until signed by both the Architect and the District Representative (on behalf of the San Bernardino Community College District Board of Education)</p> <p>Contractor's signature indicates agreement herewith, including any adjustment in the contract amount or contract time.</p>			The original Base Contract Sum was:	\$0.00	Net change by previous authorized Contract Amendment(s):	\$0.00	The contract AMOUNT due to No. will be increased by:	\$0.00	The revised BASE Contract Sum:	\$0.00	Net change by previous authorized Change Order(s):	\$0.00	The Contract Sum including previous authorized Change Orders:	\$0.00	The revised Contract Amount, including this Contract Change Order is, therefore:	\$0.00	The contract TIME due to No. will be increased by:	0 calendar days.	The revised Contract Completion Date, including this Contract Change Order is, therefore		SBCCD Change Order No.	includes Item Number(s): 1.1 through 1.9
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SBCCD Change Order No.	includes Item Number(s): 1.1 through 1.9																					
<p>I have reviewed the figures submitted by the Contractor and they have been reviewed by the District, I believe this request is valid and recommend your approval for acceptance.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 40%;">Signature</th> <th style="width: 20%;">Name (printed)</th> <th style="width: 10%;">Date</th> </tr> </thead> <tbody> <tr> <td>Architect:</td> <td></td> <td>Project Architect</td> <td></td> </tr> <tr> <td>:</td> <td></td> <td>Project Manager</td> <td></td> </tr> <tr> <td>District:</td> <td></td> <td>Vice Chancellor Fiscal Services</td> <td></td> </tr> <tr> <td>Contractor:</td> <td></td> <td>Project Manager</td> <td></td> </tr> </tbody> </table> <p style="text-align: right;"><i>Printed Name/Title</i> GENERAL CONDITIONS</p>				Signature	Name (printed)	Date	Architect:		Project Architect		:		Project Manager		District:		Vice Chancellor Fiscal Services		Contractor:		Project Manager	
	Signature	Name (printed)	Date																			
Architect:		Project Architect																				
:		Project Manager																				
District:		Vice Chancellor Fiscal Services																				
Contractor:		Project Manager																				
State of California - Division of the State Architect Application No. _____ File No. _____																						
Approved _____ per Principal Structural Engineer: _____																						

	SAN BERNARDINO COMMUNITY COLLEGE DISTRICT	San Bernardino Community College								
ALLOWANCE DISBURSEMENT AUTHORIZATION										
School Name:		Date:								
Project Name:		Allowance Disbursement No.:								
To: (PM/CM)		Project Number:								
From: (Contractor)		Contract Number:								
Description of Item to be changed to Contract allowance is as follows:										
Provide information on description and dollar values in this area										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">A. Original Contract Allowance</td> <td style="width: 30%; text-align: right;">\$ -</td> </tr> <tr> <td>B. Net Allowance Disbursement previously authorized</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>C. Charges to Contract Allowance as a result of this authorization</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>D. Current Contract Allowance Balance Remaining</td> <td style="text-align: right;">\$ -</td> </tr> </table>			A. Original Contract Allowance	\$ -	B. Net Allowance Disbursement previously authorized	\$ -	C. Charges to Contract Allowance as a result of this authorization	\$ -	D. Current Contract Allowance Balance Remaining	\$ -
A. Original Contract Allowance	\$ -									
B. Net Allowance Disbursement previously authorized	\$ -									
C. Charges to Contract Allowance as a result of this authorization	\$ -									
D. Current Contract Allowance Balance Remaining	\$ -									
Project Manager Signature	Name (Printed)	Date								
Contractor Signature	Name (Printed)	Date								
Architect Signature	Name (Printed)	Date								
District Signature	Name (Printed)	Date								
Program Manager	Name (Printed)	Date								

ARTICLE 8

8.1 DEFINITIONS

8.1.1 Contract Time

Contractor shall perform and complete all Work under this Contract within the time period specified in the Agreement Form. Moreover, Contractor shall perform its Work in strict accordance with any completion schedule, construction schedule or Project milestones developed pursuant to the provisions of the Contract including, but not limited to the Project Schedule set forth in the Specifications, if applicable.

8.1.2 Notice to Proceed

District may give a notice to proceed within three (3) months of the award of the bid by District. Once Contractor has received the notice to proceed, Contractor shall complete the Work in the period of time referenced in the Contract Documents.

In the event that District desires to postpone the giving of the notice to proceed beyond this three-month period, it is expressly understood that with reasonable notice to the Contractor, the giving of the date to proceed may be postponed by District. It is further expressly understood by Contractor, that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the giving of the notice to proceed

If the Contractor believes that a postponement will cause a hardship to Contractor, Contractor may terminate the contract with written notice to District within 10 days after receipt by Contractor of District's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the contract as a result of a notice of postponement, District shall have the authority to award the contract to the next lowest responsible bidder.

8.1.3 Computation of Time

The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

The Contractor will only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions, which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by NOAA weather data. No less than 22 calendar days will be allotted for in the Contractor's schedule. The weather days shall be shown on the schedule and if not used will become float for the Project's use. If the weather is unusually severe in excess of the NOAA data norm and prevents the Contractor from beginning work at the usual daily starting time, or prevents the Contractor from proceeding with seventy-five (75%) of the work force for the critical path activities for a period longer than four hours. Based on the approved baseline schedule contractor shall document workforce, schedule activities, weather report and daily reports, submit to Project Manager for approval. Upon completion of review and approval by the Project Manager/District, will designate such time as unavoidable delay and grant one (1) calendar-day extension. Weather delay will only grant time extension, no additional cost.

Normal weather conditions shall be considered and included in the planning and scheduling of all work influenced by high or low ambient temperatures and/or precipitation to ensure completion of all work within the Contract Time.

Time extensions for unusually severe weather: This provision specifies the procedure for determination of time extensions for unusually severe weather. The listing below defines the monthly anticipated adverse weather in work days to be used for the Contract Period.

Monthly anticipated adverse weather days:

January	7
February	7
March	7
April	5
May	3
June	1
July	0
August	1
September	1
October	3
November	4
December	5

The above schedule of anticipated adverse weather will constitute the base line for monthly weather evaluations. Upon acknowledgment of the Notice to Proceed, and continuing throughout the Contract, actual adverse weather days will be recorded on a work day basis and compared to the monthly anticipated adverse weather days listed above.

The number of actual adverse weather delays shall be calculated chronologically from the Notice to Proceed date for 365 calendar days. The term "actual adverse weather days" means the Work, critical to the timely completion of the Project, is prevented for 60% or more of the Contractor's work day. The Project Manager will convert any qualifying delays to calendar days on an annual basis. If the number of actual adverse weather days, for each year or portion thereof, exceeds the number of anticipated adverse weather days, an equitable adjustment in calendar days to the Contract performance period will be made.

8.2 HOURS OF WORK

8.2.1 Sufficient Forces

Contractors and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

8.2.2 Performance During Working Hours

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the District and approval of any required governmental agencies.

8.2.3 Costs for After Hours Inspections:

If the Work done after hours is required by the Contract Documents and the required work is to be done outside the Inspector's regular working hours of Monday through Friday 7:00am – 4:00pm, the costs of any after hour inspections, shall be borne by the Contractor. If the District allows the Contractor to do Work outside regular working hours for the Contractor's convenience, the costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and deducted via Change Order, Partial Change Order, Compromise, or Construction Directive.

If the Contractor elects to perform Work outside the Inspector's regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and deducted via Change Order, Partial Change Order, Compromise, or Construction Directive.

8.3 PROGRESS AND COMPLETION

8.3.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work. The Contractor shall, to the fullest extent possible, carry on the various classes or parts of the Work concurrently, and shall not defer construction of any portion of the Work in favor of any other portion of the Work. The Contractor shall staff the project as directed by the District and/or Project Manager to ensure completion of activities within original durations allowed in the Final Baseline Schedule produced by the Contractor.

8.3.2 No Commencement without Insurance

The Contractor shall not commence operations on the Project or elsewhere before the effective date of insurance and bonds required by Article 11. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to District claim for damages.

8.3.3 Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time, time being of the essence under this Contract. The Contractor shall furnish such manpower, materials, products, facilities, equipment, apparatus, utilities, transportation, and the like, and shall work such hours, including night shifts, overtime operations, Sundays and holidays as may be necessary to insure the prosecution and completion of the Work in accordance with the Final Baseline schedule. If work on a critical path is seven days or more behind the currently updated schedule, and it becomes apparent from the current schedule that the Work will not be completed within the Contract Time, the Contractor will implement whatever steps it deems necessary to make up all lost time. If the actions take are not successful, the Contractors will make further attempts using the following sequence of events:

- A. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- B. If the above cannot be achieved then;

1. The Contractor shall increase manpower in such quantities and crafts as will substantially eliminate, in the judgment of the District/Project Manager, the backlog of work; or increase the number of working hours, shifts per working day, working days per week or the amount of equipment or any combination of the foregoing sufficiently to substantially eliminate in the judgment of the District/Project Manager the backlog of work.

2. In addition, the District/Project Manager may require the Contractor to submit a recovery schedule demonstrating its program and proposed plan to make up a lag in scheduled progress and to ensure completion of the Work within the Contract Time. If the actions taken by the Contractor are unsatisfactory, the Project Manager may require the Contractor to take any of the actions set forth in the previous Article without additional cost to the Project Manager and/or District to make up the lag in scheduled progress.

Failure of the Contractor to comply with the requirements of this Section shall be considered grounds for a determination by the District/Project Manager that the Contractor is failing to prosecute the Work with such diligence as will ensure its completion within the time specified.

8.4 EXTENSIONS OF TIME – LIQUIDATED DAMAGES

8.4.1 Liquidated Damages: Not applicable unless set forth in the Supplemental Conditions.

8.4.2 Excusable Delay:

Contractor shall not be charged damages because of any delays in completion of Work that are not the fault or negligence of Contractor or its subcontractors, including acts of God, as defined in Public Contract Code section 7102, acts of enemy, epidemics and quarantine restrictions. Contractor shall within three (3) calendar days of beginning of any such delay notify District in writing of causes of delay; thereupon District shall ascertain the facts and extent of delay and grant extension of time for completing Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted after proper compliance with Article 3.7 requiring preparation and submission of a properly prepared CPM schedule.

No extended overhead, general conditions costs, impact costs, out-of-sequence costs or any other type of compensation, by any name or characterization, shall be paid to the Contractor for any delay to any activity not designated as a critical path item on the latest approved Project schedule.

The Contractor shall notify the Project Manager in writing of any anticipated delay and its cause, in order that immediate steps may be taken to prevent, if possible, the occurrence or continuance of delay, and may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.

In the event the Contractor requests an extension of Contract time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in work. When requesting time, i.e., extensions, for proposed Change Order, Partial Change Order, Compromise, or Construction Directive, they must be submitted with the proposed change order with full justification and documentation. If the Contractor fails to submit justification with the proposed change order it waives its right to a time extension at a later date. Such justification must be based on the official Contract schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the scope of work. The justification must include, but is not limited to, the following information:

- (a) The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform these activities within the stated duration.

GENERAL CONDITIONS

(b) Logical ties to the project schedule for the proposed changes and/or delay showing the activity/activities in the schedule whose start or completion dates are affected by the change and/or delay. (A fragment of any delay of over ten (10) days must be provided.)

The Contractor and District understand and expressly agree that insofar as Public Contract Code Section 7102 may apply to changes in the Work or delays under this contract, the actual delays and damages, if any, and

time extensions are intended to, and shall provide, the exclusive and full method of compensation for changes in the Work and construction delays.

8.4.3 Notice by Contractor Required

The Contractor shall within three (3) calendar days of beginning of any such delay notify the District in writing of causes of delay with justification and supporting documentation. District will then ascertain the facts and extent of the delay and grant an extension of time for completing the Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of the Work affected by the delay and shall not apply to other portions of the Work not so affected. The sole remedy of Contractor for extensions of time under Article 8.4.2 shall be an extension of the Contract Time at no cost to the District.

Claims relating to time extensions shall be made in accordance with applicable provisions of Article 7 and then Articles 4.5 through 4.5.10.

8.4.4 No Additional Compensation for Delays within Contractor's Control

Contractor is aware that governmental agencies, such as the department of general services, gas companies, electrical utility companies, water districts and other agencies may have to approve Contractor prepared drawings or approve a proposed installation. Contractor has included delays and damages which may be caused by such agencies in Contractor's bid. Thus, Contractor is not entitled to make claim upon the District for damages or delays arising from the delays caused by such agencies. Furthermore, the Project has been scheduled for such delays and is not entitled to an extension of time for delays caused by governmental agencies which Contractor must obtain approvals from and, thus, Contractor is not entitled to an extension of time.

Contractor shall only be entitled to compensation for delay when the following conditions are met: (1) the District is responsible for the delay; (2) the delay is unreasonable under the circumstances involved; and (3) the delay was not within the contemplation of District and Contractor.

ARTICLE 9

9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents.

9.2 COST BREAKDOWN

9.2.1 Required Information

On forms approved by the Project Manager, the Contractor shall furnish the following:

- (a) Within ten (10) calendar days of the award of the Contract, a detailed breakdown of the Contract Price (hereinafter "Schedule of Values"). The Schedule of Values to conform to the following format:

Site: (if applicable) – No single line item shall exceed 10% of the total contract value.

Specification Section
Material
Labor

Building: (if applicable) No single line item shall exceed 10% of the total contract value.

Specification Section (by floor)
Material
Labor
Equipment

Overall Schedule of Value:

Submittals (Design): 10%
Permit (Design): 15%
Construction: 65%
Punchlist: 5%
Closeout: 5%

- (b) Within ten (10) calendar days of the award of the Contract, a schedule of estimated monthly payment requests due the Contractor showing the values and construction time of the various portions of the Work to be performed by it and by its Subcontractors or material and equipment suppliers containing such supporting evidence as to its correctness as the District may require;

- (c) Within ten (10) days of the award of the Contract, the name, address, telephone number, telecopier number, email address, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

9.2.2 Approval Required

The Project Manager and the Architect shall review all submissions received pursuant to Article 9.2.1 in a timely manner. The Project Manager and the Architect must approve all submissions before becoming the basis of any payment.

9.3 PROGRESS PAYMENTS

9.3.1 Payments to Contractor

Unless the District has designated this Project as "Substantially Complex" by a finding of the Governing Board which is set forth in the Supplemental Conditions for this Project, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as certified by Architect and Inspector, reviewed by the Project Manager, and verified by Contractor) up to the last day of the previous month, less the aggregate of previous payments. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any surety upon any bond, from damages arising from such

Work, or from the District's enforcement of each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment or payment made pursuant thereto.

If Contractor refuses or fails to proceed as directed by the District concerning the Work, or any portion thereof, the District shall back charge the Contractor or withhold from the Contractor's progress payment (and if none remain, then from the Retention) an amount sufficient to protect the District from any and all costs associated therewith. Contractor shall be entitled to receive any remaining amount due on such a progress payment, if any, that has been properly submitted and supported. If the District intends to back charge the Contractor or withhold from the Contractor's progress payment (and if none remain, then from the Retention) an amount sufficient to protect the District from any and all costs associated with Contractor's refusal or failure to proceed as directed by the District concerning the Work, then the District shall, at the time of such withhold and/or back charge provide to the Contractor written notification of doing so. The District's notice shall state the reasons why the withhold and/or back charge is being made, shall state the amount to be withheld and/or back charged, and shall also contain a calculation showing the Contractor how the District has arrived at the amount of the withhold and/or back charge.

Notwithstanding anything to the contrary stated above, the Contractor may include in its Request for Payment the value of any structural steel, mail order materials, G.F.R.C. panels and other such custom-made materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:

- (a) The aggregate cost of materials stored off-site shall not exceed Contractor's actual costs less profit at any time without the written approval of the District to be given or withheld in the District's sole discretion;
- (b) Title to such materials shall be vested in the District as evidenced by documentation satisfactory in form and substance to the District, including, without limitation, recorded financing statements, UCC filings and UCC searches;
- (c) With Contractor Request for Payment, the Contractor shall submit to the District a written list identifying each location where materials are stored off-site (which must be a bonded warehouse) and the value of the materials at each location. The Contractor shall be responsible for the Owner Controlled Insurance Program (OCIP) deductible to cover losses for property stored on or off-site. Contractor is responsible for all costs of materials stored on or off-site in the amount not covered by the OCIP (Refer to Article 11).
- (d) The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;
- (e) Representatives of the District shall have the right to make inspections of the storage areas at any time; and
- (f) Such materials shall be (1) protected from diversion, destruction, theft and damage to the reasonable satisfaction of the District; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

9.3.2 Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work, at no additional cost or advance payment from District, to assure that there will be no delays to the Work.

9.3.3 No Waiver

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the District may enforce each and every provision of this Contract. The District may correct any error subsequent to any payment.

9.3.4 Issuance of Certificate of Payment

The Architect and Project Manager shall, within seven (7) days after receipt of the Contractor's Application for Payment, either approve such payment or notify the Contractor in writing of the reasons for withholding approval in whole or in part as provided in Article 9.6. The review of the Contractor's Application for Payment by the Architect and Project Manager is based on the observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the Architect's and Project Manager's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents, (2) results of subsequent tests and inspections, (3) minor deviations from the Contract Documents correctable prior to completion, and (4) specific qualifications expressed by the Architect and Project Manager. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified.

If the Architect and Project Manager intend to deny any progress payment, in whole or in part, then within seven (7) days after receipt of the Contractor's Application for Payment, the Architect and Project Manager must notify the Contractor in writing of the reasons for the withholding as provided in Article 9.6; and the notice shall state the reasons why each portion of the Application for Payment is being denied so that the Contractor is expressly informed what it needs to do to properly support the Application for Payment. Subject to any back charges and/or with holds, all properly supported portions of a Contractor's Application for Payment will be paid within thirty (30) days of receipt thereof.

9.4 APPLICATIONS FOR PROGRESS PAYMENTS

9.4.1 Procedure for Submitting Applications for Payment

On or before the 25th of each calendar month, during the progress of the portion of the Work for which payment is being requested, the Contractor will forward a draft billing for the Project Manager's approval indicating the percentages representative of the work installed with all backup and supporting documents, such back up and support shall include, but not be limited to: all documents that support all labor, materials, products, equipment, apparatus, and the like; a list of all subcontractors, sub-subcontractors, and suppliers that have furnished labor, materials, products, equipment, apparatus, and the like, to the Project during the period of time reflected in the Application for payment; all required construction schedules and updates thereto, any required schedules of values and updates thereto; and as otherwise set forth below.

Upon receipt of the Contractor's draft billing (Application for Payment), the Project Manager shall affix comments and/or initials and return draft billing to the Contractor for review. Material invoices, evidence of equipment purchases and rentals, along with other support and details of cost, may be required to be submitted to the Owner from time to time when requested. Draft billings not returned to the Contractor will be assumed "correct as noted". The Contractor will then forward a formal billing (Application for Payment) to the Project Manager. The formal billing (Application for Payment), with applicable releases and other required documentation attached, and containing wet signatures, shall be returned to the Project Manager. The Application for Payment will then be collectively forwarded to the District for processing. Failure to return the billing or applicable attachments within the time frames specified by the Project Manager will result in a delay to the processing and payment of such Applications.

9.4.1.1 District, Architect or Project Manager has the discretion to require from Contractor any of the following information with any Application for Payment:

- (a) Electronic copies of Certified Payroll(s) for the Project;
- (b) Unconditional waivers and releases from all subcontractor/ suppliers for which payment was requested under the previous application for payment; and/or
- (c) Material invoices evidence of equipment purchases, rentals and other support and details of costs

9.4.2 Prerequisites for Progress Payments

9.4.2.1 First Payment Request. The first payment request may not be processed by the District, and/or an appropriate amount of money may be withheld by the District, unless the following items, if applicable, are completed by the Contractor:

- (a) Receipt by Architect of submittals;
- (b) Installation of field office;
- (c) Submission of documents listed in the Article 9.2 relating to Cost Breakdown;
- (d) Schedule of unit prices, if applicable;
- (e) Copies of necessary permits;
- (f) Copies of authorizations and licenses from governing authorities;
- (g) Copy of plans to be used as “As-Builts”
- (h) Written acceptance of District’s survey of rough grading, if applicable;
- (i) List of all subcontractors, with names, license numbers, telephone numbers, and scope of work;
- (j) All bonds and insurance endorsements; and
- (k) Resumes of Contractor’s key personnel as determined by District, and if applicable, job site Secretary, Record Documents Recorder, and job site Superintendent.
- (M) First 60 days Initial Preliminary Baseline Schedule of work.
- (N) Contractor Labor Force “Local Hire” Demographics Reporting Form (Monthly)

9.4.2.2 Second Payment Request. The second payment request may not be processed by the District, and/or an appropriate amount of money may be withheld by the District, until all submittals and shop drawings have been sent by the Contractor for review by the Architect.

9.4.2.3 All Payment Requests. Any payment request may not be processed by the District, and/or an appropriate amount of money may be withheld by the District, if the Contractor has failed to submit copies of the Certified Payroll records for the Work which correlates to the payment request, a proper CPM schedule, and any of the other requirements of this Contract regarding progress payments.

9.4.2.4 Any payments made to Contractor where criteria set forth in Article 9.4.2.1 or 9.4.2.2 have not been met shall not constitute a waiver of said criteria by District. Instead, such payment shall be construed as a good faith effort by District 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.

9.5 WARRANTY OF TITLE

The Contractor warrants title to all work. The Contractor further warrants that all work is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work. Failure to keep work free of liens, claims, security interests or encumbrances is grounds to make a claim against Contractor's payment and performance bond to immediately remedy and defend.

If a lien or stop notice of any nature should at any time be filed against the Work or any District property, by any entity which has supplied material or services at the request of the Contractor, Contractor and Contractor's surety shall promptly, on demand by District and at Contractor's and surety's own expense, take any and all action necessary to cause any such lien or stop notice to be released or discharged immediately therefrom.

If the Contractor fails to furnish to the District within ten (10) calendar days after demand by the District, satisfactory evidence that a lien or stop notice has been so released, discharged, or secured, then District may either discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by District from any sum payable to Contractor under the Contract; or require the Contractor to post a Stop Notice Release Bond. If District sends written notice to the Contractor to post a Stop Notice Release Bond, Contractor shall have such a bond delivered to the District within five (5) calendar days of such written notice. See also Article 15.2.

9.6 DECISIONS TO WITHHOLD PAYMENT

9.6.1 Reasons to Withhold Payment

It is the District's intention to pay all properly submitted and supported progress payment applications submitted by the Contractor within thirty (30) days of receipt. However, the District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, such action is necessary. The District may withhold payment, in whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to:

- (a) Defective Work not remedied;
- (b) Stop Notices served upon the District;
- (c) Liquidated and/or actual delay damages assessed against the Contractor;
- (d) The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of any Contract Price or by the completion date;
- (e) Damage to the District or other Contractor;
- (f) Unsatisfactory prosecution of the Work by the Contractor;
- (g) Failure to store and properly secure materials;

- (h) Failure of the Contractor to submit on a timely basis, proper and sufficient documentation required by the Contract Documents, including, without limitation, acceptable monthly progress schedules, shop drawings, submittal schedules, schedule of values, product data and samples, proposed product lists, executed Change Orders, Construction Change Directives, and verified reports;
- (i) Failure of the Contractor to maintain record drawings;
- (j) Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- (k) Unauthorized deviations from the Contract Documents;
- (l) Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.
- (m) Failure to properly pay prevailing wages as defined in Labor Code section 1720, et seq.;
- (n) Failure to properly maintain or clean up the Site;
- (o) Payments to indemnify, defend, or hold harmless the District;
- (p) Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits;
- (q) Failure to submit an acceptable schedule in accordance with Article 3.8;
- (r) Failure to pay Subcontractor or suppliers as required by Article 9.8.1; or
- (s) Failure to provide releases from material suppliers or subcontractors when requested to do so.
- (t) Failure of the Contractor to comply with any lawful or proper direction concerning the Work given by any District representative authorized to have given such instruction;
- (u) Claims and/or penalties which State law assesses against the Contractor for violation of such law;
- (v) Any claim or penalty asserted against the District and/or Project Manager by virtue of the Contractor's failure to comply with the provisions of all governing laws, ordinances, regulations, rules, and orders;
- (w) Any reason specified elsewhere in the Contract Documents, or by applicable law, that would require and/or entitle the District to a withhold, back charge and/or set off.

9.6.2 Reallocation of Withheld Amounts

District may, in its sole discretion, apply any withheld amount to payment of outstanding claims or obligations as defined in Articles 9.6.1 and 9.5. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then such amount shall be considered as a payment made under Contract by District to Contractor and District shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of such funds disbursed on behalf of Contractor.

If Contractor defaults or neglects to carry out the Work in accordance with the contract documents or fails to perform any provision thereof, District may, after ten (10) calendar days written notice to the Contractor and without prejudice to any other remedy make good such deficiencies. The District shall adjust the total Contract price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract price (of at least 150% of the estimated reasonable value of the nonconforming work) shall be made therefor.

9.6.3 Payment After Cure

When the grounds for declining approval are removed, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

9.7 NONCONFORMING WORK

Contractor shall promptly remove from premises all Work identified by District as failing to conform to the Contract whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract without additional expense to District and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If Contractor does not remove such Work which has been identified by District as failing to conform to the Contract Documents within a reasonable time, fixed by written notice, District may remove it and may store the material at Contractor's expense. If Contractor does not pay expenses of such removal within ten (10) calendar days' time thereafter, District may, upon ten (10) calendar days' written notice, sell such materials at auction or at private sale and shall account for net proceeds thereof, after deducting all costs and expenses that should have been borne by Contractor.

9.8 SUBCONTRACTOR PAYMENTS

9.8.1 Payments to Subcontractors

No later than ten (10) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

9.8.2 No Obligation of District for Subcontractor Payment

The District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

9.8.3 Payment Not Constituting Approval or Acceptance

An approved Application for Payment, a progress payment, or partial or entire use or occupancy of the Project by the District shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.8.4 Joint Checks

District shall have the right, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event

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shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District.

9.9 COMPLETION OF THE WORK

9.9.1 Close-Out Procedures

9.9.1.1 Punch List Items. Unless defined differently in the Supplemental Conditions for this Project, "Substantial Completion of the Work" means, that point in the progress of the Work where the Work is completed according to the requirements of the Contract Documents so that the District can occupy, have beneficial use of, and enjoy, the entire Project for its intended purpose; and where only minor and/or trivial defects in the Work remain that do not preclude the District occupying, having beneficial use of, or enjoying the entire Project for its intended purpose.

- (i) When the Contractor considers the Project to have reached Substantial Completion of the Work, the Contractor shall prepare and submit to the Architect and Project Manager a comprehensive list of minor and/or trivial defect items to be completed or corrected (hereinafter "Proposed Final Punch List").
- (ii) The Architect and Project Manager will then review the Proposed Final Punch List. If in their collective opinion:
 - (a) the Contractor has achieved Substantial Completion of the Work, and if the Architect and Project Manager agree with the Proposed Final Punch List as submitted by the Contractor, the Architect and Project Manager shall promptly calculate and place an estimated value on each item on the Proposed Final Punch List and promptly send it out to the Contractor and the District as the "Final Punch List". The Contractor shall then proceed to correct and/or complete all remaining items on the Final Punch List pursuant to the Scheduling Specifications for the Project.
 - (b) the Contractor has achieved Substantial Completion of the Work, but either the Architect and Project Manager disagree with the Proposed Final Punch List as submitted by the Contractor, the Architect and/or the Project Manager shall promptly add any additional items to the Proposed Final Punch List and calculate and place an estimated value on all items on the Proposed Final Punch List and promptly send it out to the Contractor and the District as the "Final Punch List". The Contractor shall then proceed to correct and/or complete all remaining items on the Final Punch List pursuant to the Scheduling Specifications for the Project.
- (iii) Conversely, if in the opinion of the Architect and/or the Project Manager, the Contractor has not achieved Substantial Completion of the Work, the Architect and Project Manager shall promptly notify the Contractor and District in writing stating all reasons why Substantial Completion of the Work has not then been achieved and what remains to be done to achieve Substantial Completion of the Work. The Proposed Final Punch List will be returned to the Contractor, with a copy to the District accompanied by the written reasons of the Architect and/or Project Manager. The Contractor will then immediately proceed to correct and/or complete all remaining Work identified by the Architect and/or Project Manager that has been identified to achieve Substantial Completion of the Work. When those items are completed, the Contractor shall submit a Proposed Final Punch List. If the Architect and Project Manager collectively agree that Substantial Completion of the Work has now been achieved, the process identified in Articles 9.9.1.1. (i) and/or (ii) (a) and/or (b) shall be followed.

- (iv) Failure to include an item on a Final Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. If Contractor fails to complete and/or correct any item on the list, the District shall withhold 150% thereof and cause such work to be completed by others, deducting the actual costs thereof from any monies remaining in the contract, retention and/or recover shall from the performance bond surety, at the District's sole discretion and option.
- (v) Warranties required by the Contract Documents shall commence on the date of the Contractor completing all of its obligations under the Contract Documents and the District's Governing Board acceptance of the Project.

9.9.1.2 Close-Out Requirements.

(a) **Draft Submittal** Contractor shall submit during product submittal review a draft close-out submittal package for format and content approval.

(b) **Utility Connections** Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

(c) **Record Drawings**

1. The intent of this procedure is to obtain an exact "as built" record of the Work upon completion of the Project. The following information shall be carefully and correctly drawn on the prints and all items shall be accurately located and dimensioned from finished surfaces of building walls on all record drawings.

a. Any Work not installed as originally indicated on drawings.

b. The exact location and elevations of all covered utilities, including valves, cleanouts, etc.

2. Contractor is liable and responsible for inaccuracies in as-built drawings, even though they become evident at some future date.

3. Upon completion of the Work and as a condition precedent to approval of final payment, Contractor shall obtain the Project Manager, Architect of Record and Inspector's approval of the corrected prints and employ a competent draftsman to transfer the "as-built" information to the most current set of reproducible bond paper drawings. When completed, Contractor shall deliver corrected reproducible drawings to the Project Manager.

(d) **Maintenance Manuals.** At least thirty (30) days prior to final inspection, three (3) copies of complete operations and maintenance manuals, repair parts lists, service instructions for all electrical and mechanical equipment, and equipment warranties shall be submitted. All installation, operating, and maintenance information and drawings shall be bound in 8-1/2" X 11 " binders. Provide a table of contents in front and all items shall be indexed with tabs. Each manual shall also contain a list of subcontractors, with their addresses and the names of persons to contact in cases of emergency. Identifying labels shall provide names of manufactures, their addresses, ratings, and capacities of equipment and machinery.

(e) **Inspection Requirements**

1. Before calling for final inspection, Contractor shall determine, as appropriate, that the following Work has been performed:

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- a. The Work has been completed.
- b. All life safety items are completed and in working order.
- c. Mechanical and electrical Work complete, fixtures in place, connected and ready for tryout and test.
- d. Electrical circuits scheduled in panels and disconnect switches labeled.
- e. Painting and special finishes complete.
- f. Doors complete with hardware, cleaned of protective film relieved of sticking or binding and in working order.
- g. Tops and bottoms of doors sealed.
- h. Floors waxed and polished as specified.
- i. Broken glass replaced and glass cleaned.
- j. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
- k. Work cleaned, free of stains, scratches, and other foreign matter, replacement of damaged and broken material.
- l. Finished and decorative work shall have marks, dirt and superfluous labels removed.
- m. Final cleanup.

9.9.2 Costs of Multiple Inspections

More than two (2) requests of the District to make inspections required under the Contract Documents shall be considered an additional service of Architect, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

9.10 PARTIAL OCCUPANCY OR USE

9.10.1 District's Rights

The District may occupy or use any completed or partially completed portion of the Work at any stage. The District and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. If District and Contractor cannot agree as to responsibilities such disagreement shall be resolved pursuant to Article 4.5.1. When the Contractor considers a portion complete, the Contractor shall prepare and submit a Punch List to the District as provided under Article 9.9.1.

9.10.2 Inspection Prior to Occupancy or Use

Immediately prior to such partial occupancy or use, the District and Project Manager, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

9.10.3 No Waiver

Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of the Work not complying with the requirements of the Contract Documents.

9.11 COMPLETION AND FINAL PAYMENT

9.11.1 Final Inspection

Contractor shall comply with Punch List procedures under Article 9.9.1.1, and maintain the presence of Project superintendent and Project foremen until the Final Punch List is complete to ensure proper and timely completion of the Final Punch List. Under no circumstances shall Contractor demobilize its forces before completion of the Final Punch List. Upon receipt of Contractor's written notice that all of the Final Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect and Project Manager shall inspect the Work and shall submit to Contractor and District a final inspection report noting the work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Final Punch List items not yet satisfactorily completed.

Upon completion of the Work contained in the final inspection report, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect, Project Manager and the District find the Work contained in such final inspection report acceptable under the Contract Documents and, therefore, the Work fully completed, Project Manager shall notify Contractor, who shall then submit to the Project Manager its final Application for Payment.

Upon receipt and approval of such final Application for Payment, the Architect shall issue a final Certificate of Payment stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such Work and either accept the Work as complete or notify the Architect, Project Manager and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (which, absent unusual circumstances, will occur all Final Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder. Upon receipt of the final payment from the District, the Contractor shall pay the amounts due all Subcontractors.

9.11.2 Release Of Undisputed Retention & Withholding of Disputed Retention

All disputed retention will be identified to the Contractor by the District when Substantial Completion of the Work has been achieved as defined in Article 9.9.1.1 and/or as required by Public Contract Code section 7107. Retention that is disputed may include, but is certainly not limited to, all amounts of money for all items remaining on the Final Punch List as of the date of its issuance, any back charges and/or off sets to be made by the District against the Contract Price as permitted by the Contract Documents and/or applicable law, any deductive credits owed to the District, any amounts of money the District is required to withhold from the Contractor as a matter of law (such as, but without limitation, for labor with holds, stop notices, safety violations, etc.); and any such other items and amounts identified by the District in its "Notice to Hold Disputed Retention and Release of Undisputed Retention". The Notice to Hold Disputed Retention and Release of Undisputed Retention will be issued to the Contractor by the District within seven (7) calendar days after the Substantial Completion of the Work has been achieved. Following issuance of the Notice to Hold Disputed Retention and Release of Undisputed Retention, said

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Notice may be revised deleting and/or adding other items, and appropriate disputed amounts, as they become known to the District.

9.11.3 Procedures for Application for Final Payment.

9.11.3.1 Prerequisites for Final Payment. The following conditions must be fulfilled before the District's obligation to make the Final Payment matures:

- (a) A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.
- (b) The Contractor shall have made all corrections to the Work which are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.
- (c) Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.
- (d) Contractor must have completed all requirements set forth in Article 9.9.1.2.
- (e) Architect and Project Manager shall have issued a Final Certificate of Payment.
- (f) The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents.
- (g) The Contractor shall have completed final clean up as required by Article 3.12.

9.12 SUBSTITUTION OF SECURITIES

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300. The Escrow Agreement Form is found in section 00 50 04. Use of this form is mandatory.

ARTICLE 10

10.1 SAFETY PRECAUTIONS AND PROGRAMS

.1 Contractor Responsibility

The Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance by the District. All work shall be solely at the Contractor's risk, with the exception of damage to the work caused by "acts of God" as defined in Public Contract Code section 7105(b)(2).

Contractor shall take, and require subcontractor to take, all necessary precautions for safety of workers on the Work and shall comply with all applicable federal, state, local and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. In addition to meeting all

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requirements of OSHA, Cal-OSHA, state, and local codes, Contractor shall furnish, erect and properly maintain at all times, as directed by District, Project Manager or Architect or required by conditions and progress of work, all necessary safety devices, safeguards, construction canopies, signs, audible devices for protection of the blind, safety rails, belts and nets, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created by such features in the course of construction. Contractor shall designate a responsible member of its organization on the Work, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety and health of workers. The name and position of person so designated shall be reported to District by Contractor. Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. The Contractor shall conduct on-site, weekly safety meetings and provide those meeting reports to the Project Manager. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, such violation shall be corrected promptly.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Also, in no case shall the District, the Project Manager, the Architect, the Inspector, or their agents, employees or representatives, have either direct or indirect responsibility for the means, methods, techniques, sequences or procedures utilized by the Contractor, or for safety precautions and programs in connection with the Work.

Certain work may be ongoing at the time school is in session; therefore, each Contractor shall take precautions to prevent injury and access to students, the public and staff. Material storage and vehicle access and parking shall be subject to District and/or Project Manager's approval.

The Contractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the District, Project Manager and District Inspector.

.2 Subcontractor Responsibility

Contractor shall require that Subcontractors participate in, and enforce, the safety and loss prevention programs established by the Contractor for the Project, which will cover all Work performed by the Contractor and its Subcontractors. Each Subcontractor shall designate a responsible member of its organization whose duties shall include loss and accident prevention, and who shall have the responsibility and full authority to enforce the program. This person shall attend meetings with the representatives of the various Subcontractors employed to ensure that all employees understand and comply with the programs.

.3 Cooperation

All Subcontractors and material or equipment suppliers shall cooperate fully with Contractor, the District, and all insurance carriers and loss prevention engineers.

.4 Accident Reports

Subcontractors shall immediately, within two (2) days, report in writing to the Contractor all accidents whatsoever arising out of, or in connection with, the performance of the Work, whether on or off the Site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger. Contractor shall thereafter immediately, within two (2) days, report the facts in writing to the District, Project Manager and the Architect giving full details of the accident.

.5 First-Aid Supplies at Site

The Contractor will provide and maintain at the Site first-aid supplies, which complies with the current Occupational Safety and Health Regulations.

.6 Material Safety Data Sheets and Compliance with Proposition 65

(a) Contractor is required to have material safety data sheets available in a readily accessible place at the job site for any material requiring a material safety data sheet per the Federal “hazard communication” standard, or employees’ “right-to-know law”. Copies of the data sheets shall be submitted to the Project Manager. The Contractor is also required to properly label any substance brought into the job site, and require that any person working with the material, or within the general area of the material, is informed of the hazards of the substance and follows proper handling and protection procedures.

Contractor is required to comply with the provisions of California Health and Safety Code section 25249, et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with the provisions of this section, and to comply fully with its requirements.

.7 Non-Utilization of Asbestos Material

NO ASBESTOS OR ASBESTOS-CONTAINING PRODUCTS SHALL BE USED IN THIS CONSTRUCTION OR IN ANY TOOLS, DEVICES, CLOTHING, OR EQUIPMENT USED TO EFFECT THIS CONSTRUCTION.

Asbestos and/or asbestos-containing products shall be defined as all items containing, but not limited to, chrysotile, amosite, anthophyllite, tremolite, and antinolite.

Any or all material containing greater than one-tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.

All Work or materials found to contain asbestos or Work or material installed with asbestos-containing equipment will be immediately rejected and this Work will be removed at no additional cost to the District.

Decontamination and removal of Work found to contain asbestos or Work installed with asbestos-containing equipment shall be done only under supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency.

The asbestos removal Contractor shall be an EPA accredited contractor qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant, who shall have sole discretion and final determination in this matter.

The asbestos consultant shall be chosen and approved by the District, who shall have sole discretion and final determination in this matter.

The Work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.

Interface of Work under this Contract with work containing asbestos shall be executed by the Contractor at his risk and at his discretion, with full knowledge of the currently accepted standards, hazards, risks, and liabilities associated with asbestos work and asbestos-containing products. By execution of this Contract, the Contractor acknowledges the above and agrees to hold harmless District and its assigns for all asbestos liability which may be

associated with this work and agrees to instruct his employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

10.2 SAFETY OF PERSONS AND PROPERTY

.1 The Contractor

The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

- (a) Employees on the Work and other persons who may be affected thereby;
- (b) The Work, material, and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody, or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- (c) Other property at the Site or adjacent thereto such as trees, shrubs, lawns, walks, pavement, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

Contractor is constructive owner of Project site as more fully discussed in Article 6.2.

.2 Contractor Notices

The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury, or loss.

.3 Safety Barriers and Safeguards

The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

.4 Use or Storage of Hazardous Material

When use or storage of explosives, other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor shall notify the District and Project Manager any time that explosives or hazardous materials are expected to be stored on Site. Location of storage shall be coordinated with the District, Project Manager and local fire authorities.

.5 Protection of Work

The Contractor and Subcontractors shall continuously protect the Work, the District's property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.

The Contractor, at Contractor's expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work.

Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations. All permits, licenses, or inspection fees required for such repair Work shall be obtained and paid for by Contractor.

.6 Requirements for Existing Sites

Contractor shall (unless waived by the District in writing):

- (a) When performing construction on existing sites, become informed and take into specific account the maturity of the students on the Site; and perform Work before or after college hours, enclose working area(s) with a substantial barricade(s), and arrange Work to cause a minimum amount of inconvenience and danger to students and faculty in their regular activities, the college routine, and Campus Operations. The Contractor shall comply with specifications and directives of the District regarding the timing of certain construction activities in order to avoid unnecessary interference with the functioning of the College at the Project site and in order to avoid unnecessary interference with all Campus Operations.
- (b) Provide substantial barricades around any shrubs or trees indicated to be preserved.
- (c) If Contractor's work disrupts Campus Operations and requires temporary re-routing of campus personnel or students, any and all site improvements will be accommodated by the Contractor.
- (d) Deliver materials to building area over route designated by Architect.
- (e) Take preventive measures to eliminate objectionable dust, noise, or other disturbances.
- (f) Confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits or directions of Architect; and not interfere with the Work or unreasonably encumber premises or overload any structure with materials; and enforce all instructions of District, Project Manager and Architect regarding signs, advertising, fires, and smoking and require that all workers comply with all regulations while on the Project site.
- (g) Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved land surveyor or civil engineer and all maps and records required therefrom shall be filed with county and local authorities, at no cost to the District. All filing and plan check fees shall be paid by Contractor.
- (h) Contractor shall provide District with Contractor's written safety program and safety plan for each site.
- (i) All of the foregoing is to be done at no cost to the District.

.7 Shoring and Structural Loading

The Contractor shall not impose structural loading upon any part of the Work under construction or upon existing construction on or adjacent to the Site in excess of safe limits, or loading such as to result in damage to the structural, architectural, mechanical, electrical, or other components of the Work. The design of all temporary construction equipment and appliances used in construction of the Work and not a permanent part thereof, including, without limitation, hoisting equipment, cribbing, shoring, and temporary bracing of structural steel, is the sole responsibility of the Contractor. All such items shall conform with the requirements of governing codes and all laws, ordinances, rules, regulations, and orders of all authorities having jurisdiction. The Contractor shall take

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special precautions, such as shoring of masonry walls and temporary tie bracing of structural steel work, to prevent possible wind damage during construction of the Work. The installation of such bracing or shoring shall not damage the Work in place or the Work installed by others. Any damage which does occur shall be promptly repaired by the Contractor at no cost to the District.

.8 Conformance Within Established Limits

The Contractor and Subcontractors shall confine their construction equipment, the storage of materials, and the operations of workers to the limits indicated by laws, ordinances, permits, and the limits established by the Project Manager and District, and shall not unreasonably encumber the premises with construction equipment or materials.

.9 Subcontractor Enforcement of Rules

Subcontractors shall enforce the District's and the Project Manager's instructions, laws, and regulations regarding signs, advertisements, fires, smoking, the presence of liquor, and the presence of firearms by any person at the Site.

.10 Site Access

The Contractor and the Subcontractors shall use only those ingress and egress routes designated by Project Manager, observe the boundaries of the Site designated by the Project Manager, park only in those areas designated by the Project Manager, which areas may be on or off the Site, and comply with any parking control program established by the District, such as furnishing license plate information and purchasing parking identifying stickers on vehicles.

.11 Security Services

The Contractor shall be responsible for providing security services for the work as needed for the protection of the work and as determined in the District's sole discretion.

10.3 EMERGENCIES

.1 Emergency Action

In an emergency affecting the safety of persons or property, the Contractor shall take any action necessary, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 7.

.2 Accident Reports

The Contractor shall promptly report in writing to the Project Manager all accidents arising out of or in connection with the Work, which caused death, personal injury, or property damage, giving full details and statements of any witnesses in conformance with Article 10.1.4. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported in accordance with Article 10.1.4, immediately by telephone or messenger to the District, and Project Manager.

10.4 HAZARDOUS MATERIALS

.1 Discovery of Hazardous Materials

In the event the Contractor encounters or suspects the presence on the job site of material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or any other material defined as being hazardous in accordance with the California Health and Safety Code, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the District, Project Manager and the Architect in writing, whether or not such material was generated by the Contractor or the District. The Work in the affected area shall not thereafter be resumed, except by written agreement of the District and the Contractor, if in fact the material is asbestos, polychlorinated biphenyl (PCB), or other hazardous material, and has not been rendered harmless. The Work in the affected area shall be resumed only in the absence of asbestos, polychlorinated biphenyl (PCB), or other hazardous material, or when it has been rendered harmless by written agreement of the District and the Contractor.

.2 Hazardous Material Work Limitations

In the event that the presence of hazardous materials is suspected or discovered on the Site, the District shall retain an independent testing laboratory to determine the nature of the material encountered and whether corrective measures or remedial action is required. The Contractor shall not be required pursuant to Article 7 to perform without consent any Work in the affected area of the Site relating to asbestos, polychlorinated biphenyl (PCB), or other hazardous material, until any known or suspected hazardous material has been removed, or rendered harmless, or determined to be harmless by District, as certified by an independent testing laboratory and approved by the appropriate government agency.

.3 Indemnification for Hazardous Material Caused by Contractor

In the event the hazardous materials on the Project Site is caused by the Contractor, the Contractor shall pay for all costs of testing and remediation, if any, and shall compensate the District for any additional costs incurred as a result of Contractor's generation of hazardous material on the Project Site. In addition, the Contractor shall defend, indemnify and hold harmless District and Project Manager and their agents, officers, and employees from and against any and all claims, damages, losses, costs and expenses incurred in connection with, arising out of, or relating to, the presence of hazardous material on the Project Site.

.4 Terms of Hazardous Material Provision

The terms of this Hazardous Material provision shall survive the completion of the Work and/or any termination of this Contract.

ARTICLE 11

11.1 OWNER CONTROLLED INSURANCE PROGRAM (OCIP)

See Section 00 50 05 for the OCIP Information, Terms and Conditions, Forms, etc. required for this Project.

ARTICLE 12

12.1 UNCOVERING OF WORK

.1 Uncovering Work for Required Inspections

If a portion of the Work is covered without Inspector, Project Manager or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the Inspector, Project Manager or the Architect, be uncovered for the Inspector's or the Architect's observation and be replaced at the Contractor's expense without change in the Contract Sum or Time.

.2 Costs for Inspections not Required

If a portion of the Work has been covered which the Inspector, Project Manager or the Architect has not specifically requested to observe prior to its being covered, the Inspector, Project Manager or the Architect may request to see such Work, and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncover and replacement shall, by appropriate Change Order, be charged to the District. If such Work is not in accordance with Contract Documents, the Contractor shall pay such costs unless the condition was caused by the District or a separate Contractor, in which event the District shall be responsible for payment of such costs to the Contractor.

12.2 CORRECTION OF WORK

.1 Correction of Rejected Work

The Contractor shall promptly correct the Work rejected by the Inspector or the District upon recommendation of the Architect as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

.2 Warranty Corrections

If, within one (1) year after the date of Notice of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established under Article 9.9.1, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so unless the District has previously given the Contractor a written acceptance of such condition. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation under this Article 12.2.2 shall survive acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

.3 District's Rights if Contractor Fails to Correct

If the Contractor fails to correct nonconforming Work within a reasonable time, the District may correct it. If in the judgment of the District, it is undesirable or impracticable to replace any defective or nonconforming Work, the compensation to be paid to the Contractor shall be reduced by Contract Change Order by such amount as in the judgment of the District and its authorized representative shall deem equitable.

ARTICLE 13

13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located.

13.2 SUCCESSORS AND ASSIGNS

The District and the Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3 WRITTEN NOTICE

In the absence of specific notice requirements in the Contract Documents, written notice shall be deemed to have been duly served if delivered in person to the individual, member of the firm or entity, or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4 RIGHTS AND REMEDIES

.1 Duties and Obligations Cumulative

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

.2 No Waiver

No action or failure to act by the Inspector, the District, Project Manager, or the Architect shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5 TEST AND INSPECTIONS

.1 Compliance

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

.2 Independent Testing Laboratory

The District will select and pay an independent testing laboratory to conduct all tests and inspections. Selection of the materials required to be tested shall be made by the laboratory or the District's representative and not by the Contractor. Any costs or expenses of inspection or testing incurred outside of a fifty (50) mile radius from the Project Site or not located in a contiguous county to the Site, whichever distance is greater, shall be paid for by the District, invoiced by the District to the Contractor, and deducted from the Contractor's next Progress Payment.

.3 Advance Notice to Inspector

The Contractor shall notify the Inspector within no less than seventy-two (72) hours in advance of its readiness for required observation or inspection so that the Inspector may arrange for same. The Contractor shall notify the Inspector a sufficient time in advance but in no case less than seventy-two (72) hours of the manufacture of material to be supplied under the Contract Documents which must, by terms of the Contract Documents, be tested in order that the Inspector may arrange for the testing of the material at the source of supply.

.4 Testing Off-Site

Any material shipped by the Contractor from the source of supply, prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said Inspector that such testing and inspection will not be required, shall not be incorporated in the Work.

.5 Additional Testing or Inspection

If the Inspector, the Architect, the District, Project Manager or public authority having jurisdiction determines that portions of the Work require additional testing, inspection, or approval not included under Article 13.5.1, the Inspector will, upon written authorization from the District, make arrangements for such additional testing, inspection, or approval. The District shall bear such costs except as provided in Article 13.5.7.

.6 Costs for Retesting

If such procedures for testing, inspection, or approval under Articles 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs arising from such failure, including those of re-testing, re-inspection, or re-approval, including, but not limited to, compensation for the Architect's and Project Manager's services and expenses. Any such costs shall be paid by the District, invoiced to the Contractor, and deducted from the Contractor's via Change Order.

.7 Costs for Premature Test

In the event the Contractor requests any test or inspection for the Project and is not completely ready for the inspection, the Contractor shall be invoiced by the District for all costs and expenses resulting from that testing or inspection, including, but not limited to, the Inspector's Project Manager's and Architect's fees and expenses, and the amount of the invoice of shall be deducted from the Contractor's via Change Order.

13.6 TRENCH EXCAVATION

.1 Trenches Greater Than Five Feet

Pursuant to Labor Code section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, submit to the District, Project Manager or a registered civil or structural engineer identified by the District or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

.2 Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the District or by the person to whom authority to accept has been delegated by the District.

.3 No Tort Liability of District

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

.4 No Excavation Without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

13.7 WAGE RATES, TRAVEL AND SUBSISTENCE

.1 Wage Rates

Pursuant to the provisions of Article 2 (commencing at § 1720), Chapter 1, Part 7, Division 2, of the Labor Code, the District has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public works project is to be performed for each craft, classification, or type of worker needed for this Project from the Director of the Department of Industrial Relations ("Director"). These rates are on file at the administrative office of the DISTRICT and are also available from the Director of the Department of Industrial Relations. Copies will be made available to any interested party on request. The Contractor shall post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.

Any worker employed to perform work on the Project, but such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.

.2 Holiday and Overtime Pay

Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the contract documents or authorized by law.

.3 Wage Rates Not Affected by Subcontracts

The Contractor shall pay and shall cause to be paid each worker engaged in the execution of the Work on the Project not less than the general prevailing rate of per diem wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

.4 Per Diem Wages

The Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project per diem wages including, but not limited to, employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided for in Labor Code §1773.1.

.5 Forfeiture and Payments

Pursuant to Labor Code §1775 the Contractor shall forfeit to the District, not more than dollar required by law for each calendar day, or portion thereof, for each worker paid less than the prevailing wages rates as determined by the Director of the Department of Industrial Relations, for the work or craft in which the worker is employed for any Work done under the Agreement by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of: (1) whether the Contractor or Subcontractor's failure to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily correct upon being brought to the attention of the Contractor or Subcontractor; and (2) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations. Further details regarding the enforcement of paying prevailing wage rates, reporting violations, withholding contract payments, forfeitures and hearing to review withholding of contract payments can be reviewed on the Department of Industrial Relations' website.

13.8 RECORD OF WAGES PAID: INSPECTION

.1 Payroll Records

Pursuant to section 1776 of the Labor Code:

(a) Each Contractor and Subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification and straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him or her in connection with the Project.

(b) All payroll records shall be certified and submitted to the District with each application for payment, but shall not be submitted less than once per month. All payroll records shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.

(3) A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Article (2)

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above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by the Contractor, Subcontractor(s), and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.

(d) The Contractor or Subcontractor(s) shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor(s) performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number.

(f) The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

(g) The Contractor or Subcontractor(s) shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that the Contractor or Subcontractor(s) fails to comply within the 10-day period, the Contractor or Subcontractor(s) shall, as a penalty to the District, forfeit Twenty-Five Dollars (\$25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

The responsibility for compliance with this Article and the District's Labor Compliance Program shall rest upon the Contractor.

.2 Withholding of Contract Payments & Penalties.

The District may withhold or delay contract payments to the Contractor and/or any Subcontractor if:

- (a) The required prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations is not paid to all workers employed on the Project; or
- (b) The Contractor or Subcontractor(s) fail to submit all required certified payroll records with each application for payment, but not less than once per month; or
- (c) The Contractor or Subcontractor(s) submit incomplete or inadequate payroll records; or
- (d) The Contractor or Subcontractor(s) fail to comply with the Labor Code requirements concerning apprentices; or

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- (e) The Contractor or Subcontractor(s) fail to comply with the District's Labor Compliance Program;
or
- (f) The Contractor or Subcontractor(s) fail to comply with any applicable state laws governing workers on public works projects.

Any withholding of contract payments and penalties are set forth in the District's Labor Compliance Program.

13.9 APPRENTICES

.1 Apprentice Wages and Definitions

All apprentices employed by the Contractor to perform services under the Contract shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, and as determined by the Director of the Department of Industrial Relations, and shall be employed only at the craft or trade to which he or she is registered. Only apprentices, as defined in §3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with §3070) of Division 3, are eligible to be employed under this Contract. The employment and training of each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California Apprenticeship Council.

.2 Employment of Apprentices

Contractor agrees to comply with the requirements of Labor Code §1777.5. The Contractor awarded the Project, or any Subcontractor under him or her, when performing any of the Work under the Contract or subcontract, employs workers in any apprenticeable craft or trade, the Contractor and Subcontractor shall employ apprentices in the ratio set forth in Labor Code §1777.5. The Contractor or any Subcontractor must apply to any apprenticeship program in the craft or trade that can provide apprentices to the Project site for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor upon the Contractor's or Subcontractor's request. "Apprenticeable craft or trade" as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the California Apprenticeship Council. The ratio of work performed by apprentices to journeyman employed in a particular craft or trade on the Project shall be in accordance with Labor Code §1777.5.

.3 Submission of Contract Information

Before starting commencing work on the Project, the Contractor and Subcontractors shall submit contract award information to the applicable apprenticeship program(s) that can supply apprentices to the Project and make the request for the dispatch of apprentices in accordance with the Labor Code. The information submitted shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the District if requested. Within 60 days after concluding work on the Project, the Contractor and Subcontractors shall submit to the District, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Project.

.4 Apprentice Fund

The Contractor or any Subcontractor under him or her, who, in performing any of the Work under the Contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. The Contractor and Subcontractors may take as a credit for payments to the California Apprenticeship Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the Project. The Contractor and Subcontractors may add the amount of the contributions in computing his or her bid for the Contract.

.5 Contractor Compliance

The responsibility of compliance with Article 13 and §1777.5 of the Labor Code for all apprenticeable occupations is with the Contractor. Any Contractor or Subcontractor that knowingly violates the provisions of this Article or Labor Code §1777.5 shall be subject to the penalties set forth in Labor Code §1777.7 and the District's Labor Compliance Program.

13.10 ASSIGNMENT OF ANTITRUST CLAIMS

.1 Application

Pursuant to Government Code section 4552, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act, (15 U.S.C. §15) or under the Cartwright Act (Chapter 2 [commencing with §16700] of Part 2 of Division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with § 4550) of Division 5 of Title 1 of the Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

.2 Assignment of Claim

Upon demand in writing by the assignor, the District shall, within one (1) year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose and the District has not been injured thereby or the District declines to file a court action for the cause of action.

13.11 STATE AUDIT

Pursuant to and in accordance with the provisions of Title 29, Part 516 of the Code of Federal Regulations, or any amendments thereto, all books, records, and files of the District, the Contractor, or any Subcontractor connected with the performance of this Contract involving the expenditure of state funds in excess of Ten Thousand Dollars (\$10,000.00), including, but not limited to, the administration thereof, shall be subject to the examination and audit of the Office of the Auditor General of the State of California for a period of three (3) years after final payment is made under this Contract. Contractor shall preserve and cause to be preserved such books, records, and files for the audit period.

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13.12 PERFORMANCE AND PAYMENT BONDS

.1 Bond Requirements

Before starting any portion of the Work, the Contractor shall furnish separate payment and performance bonds for its portion of the Work which shall cover 100% faithful performance of and 100% payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate surety authorized and admitted to transact business in California as sureties. To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the District, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the surety. If the Contractor fails to furnish the required bonds, the District may terminate the Contract for cause. The Performance Bond form in section 00 50 02 is a mandatory form. The Payment Bond form in section 00 50 01 is a mandatory form.

.2 Surety Qualification

Only bonds executed by admitted Surety insurers as defined in Code of Civil Procedure section 995.120 shall be accepted. Surety must be a California-admitted surety and listed by the U.S. Treasury with a bonding capacity in excess of the Project cost.

.3 Alternate Surety Qualifications

If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with section 995.660 of the California Code of Civil Procedure and proof of such is provided to the District.

.4 Stop Notice Release Bond Surety Different from Payment and Performance Bond Surety

Any stop notice release bond posted with the District for this Project must be issued from a surety that is not the surety that issued the payment bond or performance bond for this Project.

ARTICLE 14

14.1 TERMINATION BY THE CONTRACTOR FOR CAUSE

14.1.1 Grounds for Termination

The Contractor may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the Contractor is contractually responsible, for only the following reasons:

- (a)** Issuance of an order of a court or other public authority having jurisdiction; or
- (b)** An act of government, such as a declaration of national emergency.

14.1.2 Notice of Termination

If one of the above reasons exists, the Contractor may, upon written notice of seven (7) additional days to the District, terminate the Contract and recover from the District payment for Work executed and for reasonable costs verified by the District and Project Manager with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

14.2 TERMINATION BY THE DISTRICT FOR CAUSE

14.2.1 Grounds for Termination

The District may terminate the Contractor and or this Contract for the following reasons:

- (a) Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- (b) Persistently or repeatedly is absent, without excuse, from the job site;
- (c) Fails to make payment to Subcontractors;
- (d) Persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or
- (e) Otherwise is in substantial breach of a provision of the Contract Documents.

14.2.2 Notification of Termination

When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Contractor and the Contractor's surety, if any, written notice of seven (7) days, terminate the Contractor and/or this Contract and may, subject to any prior rights of the surety:

- (a) Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- (b) Accept assignment of Subcontracts. Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to take over completion of the Project, the Contractor agrees to immediately assign all Subcontracts to the District which the District has chosen to accept; and
- (c) Complete the Work by any reasonable method the District may deem expedient, including contracting with a replacement contractor or contractors.

14.2.3 Payments Withheld

If the District terminates the Contract for one of the reasons stated in Article 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is complete. All costs associated with the termination and completion of the Project shall be the responsibility of the Contractor and/or its surety.

14.2.4 Payments Upon Completion

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the District. The amount to be paid to the

Contractor, or District, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Contract.

14.3 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

14.3.1 Termination for Convenience

District may terminate the Contract upon fifteen (15) calendar days of written notice to the Contractor and use any reasonable method the District deems expedient to complete the project, including contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Contractor make it impossible or against the District's interest to complete the work. In such a case, the Contractor shall have no claims against the District except: (1) the actual cost for labor, materials, and services performed which may be documented through timesheets, invoices, receipts, or otherwise, and (2) ten percent (10%) profit and overhead, and (3) five percent (5%) termination cost of the total of items (1) and (2). Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to take over completion of the Project, the Contractor agrees to immediately assign all Subcontracts to the District which the District has chosen to accept. Contractor also agrees and acknowledges that the compensation payable by this article 14.3.1 shall be the sole and exclusive compensation, damages and amount of money recoverable by Contractor for the District's termination of pursuant to this article 14.3.1.

14.3.2 Non-Appropriation of Funds/ Insufficient Funds

In the event that sufficient funds are not appropriated to complete the Project or the DISTRICT determines that sufficient funds are not available to complete the Project, DISTRICT may terminate or suspend the completion of the Project at any time by giving written notice to the Contractor. In the event that the DISTRICT exercises this option, the DISTRICT shall pay for any and all work and materials completed or delivered onto the site for which value is received, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of fifteen percent (15%) for the Contractor's overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the DISTRICT. DISTRICT may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as DISTRICT may determine. Adjustment shall be made for increases in the cost of performance of the Agreement caused by suspense, delay or interruption.

14.4 REMEDIES OTHER THAN TERMINATION

If a default occurs, the District may, without prejudice to any other right or remedy, including, without limitation, its right to terminate the Contract pursuant to Article 14.2, do any of the following:

- (a) Permit the Contractor to continue under this Contract, but make good such deficiencies or complete the Contract by whatever method the District may deem expedient, and the cost and expense thereof shall be deducted from the Contract Price or paid by the Contractor to the District on demand;
- (b) If the workmanship performed by the Contractor is faulty or defective materials are provided, erected or installed, then the District may order the Contractor to remove the faulty workmanship or defective materials and to replace the same with work or materials that conform to the Contract Documents, in which event the Contractor, at its sole costs and expense, shall proceed in accordance with the District's order and complete the same within the time period given by the District in its notice to the Contractor; or
- (c) Initiate procedures to declare the Contractor a non-responsible bidder for a period of two to five years thereafter.

All amounts expended by the District in connection with the exercise of its rights hereunder shall accrue interest from the date expended until paid to the District at the maximum legal rate. The District may retain or withhold any such amounts from the Contract Price. If the Contractor is ordered to replace any faulty workmanship or defective materials pursuant to Article (b) above, the Contractor shall replace the same with new work or materials approved by the Architect and the District, and, at its own cost, shall repair or replace, in a manner and to the extent the Architect and the District shall direct, all work or material that is damaged, injured or destroyed by the removal of said faulty workmanship or defective material, or by the replacement of the same with acceptable work or materials. In no event shall anything in this Article be deemed to constitute a waiver by the District of any other rights or remedies that it may have at law or in equity, it being acknowledged and agreed by the Contractor that the remedies set forth in this Article are in addition to, and not in lieu of, any other rights or remedies that the District may have at law or in equity.

ARTICLE 15

15.1 COPY OF PAYMENT BOND MUST BE POSTED ON PROJECT SITE

Contractor shall at all times post a full and complete copy of the payment Bond for the Project in a conspicuous place outside of the Inspector of Record's trailer and/or outside the Contractor's trailer in an enclosure to protect the document from the elements so that said Payment Bond is easily readable by any person performing and/or furnishing labor, skills, material, equipment, supplies, apparatus and the like, to the jobsite. District has the right, but not the obligation, to post a copy of such bond at the Project site as well.

15.2 STOP NOTICE RELEASE BONDS REQUIRED

Should a stop notice claimant file a Stop Notice with the District regarding the Project, the District will notify the Contractor in writing of same and provide the Contractor with a copy of the Stop Notice. Contractor shall then immediately do one or more of the following: (1) obtain a release of the Stop Notice and provide the original thereof to the District; (2) use the summary statutory declaration procedure for challenging the Stop Notice; and/or (3) provide the District with a Stop Notice Release Bond from a surety separate from the surety that issued the Payment Bond and Performance Bond for the Project. If the Contractor does not use the summary statutory declaration procedure for challenging the Stop Notice, then if the Contractor has not provided the District with a release of the Stop Notice within seven (7) calendar days of the District giving written notice thereof to the Contractor, Contractor shall immediately provide the District with a Stop Notice Release Bond from a surety separate from the surety that issued the Payment Bond and Performance Bond for the Project. Should Contractor fail to do so, the District has the right, but not the obligation, to obtain such a bond and back charge the Contractor the cost thereof as well as any other costs, fees, and/or expenses the District incurs as a result thereof.

END OF SECTION

EXHIBIT C

SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SECTION INCLUDES

This section specifies administrative and procedural requirements for a certified Application for Payment.

RELATED DOCUMENTS OR SECTIONS

Document – 00 50 00 Owner Contractor Agreement
Document – 00 40 00 General Conditions
Section 01 33 00 – Submittals
Section 01 77 19 – Contract Close-out

- 1.1.1 This Section specifies administrative and procedural requirements governing the Contractor’s Application for Payment.
- 1.1.2 Submit Applications for Payment to Project Manager in accord with the schedule established by this Section, the Conditions of the contract and agreement between Owner and Contractor.
- 1.1.3 Related Requirements in other parts of the Project Manual:
 - 1.1.3.1. Contract Sum and Payments: Agreement between Owner and Contractor.
 - 1.1.3.2. Progress Payments, retention and final payment: Conditions of the Contract
 - 1.1.3.3. Contract Close-out: Section 01 7719
 - 1.1.3.4. Project Construction: Section 01 32 16

1.2 FORMAT AND DATA REQUIRED

- 1.2.1. Format and content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values.
- 1.2.2. Submit itemized applications typed on AIA Document G702/CMA, application and Certificate for Payment and continuation sheets AIA Document G703/CM.
- 1.2.3. Provide itemized data on continuation sheet:
 - 1.2.3.1. Format, schedules, line items and values: Those of the Schedule of Values accepted by the Project Manager.
 - 1.2.3.2. Obtain signature of Resident Inspector on each application prior to submittal to Project Manager.

1.2.4. SCHEDULE OF VALUES

- 1.2.4.1 Within 10 days of award of contract, the Contractor shall submit to the Project Manager a schedule of values allocated to the various portions of the work in sufficient detail and supported by such data to substantiate its accuracy as the Project Manager and the Owner may require. This schedule, when approved, shall be used as a basis for the Contractors applications for payment. The Schedule of Values shall be aligned with the Specification Section 01 32 16.
- 1.2.4.2 Should the Contractor and the Owner not come to agreement on the schedule of values by the expiration date of the “interim Schedule”, the Owner shall prepare a schedule of values which shall then be used for the remainder of the Project to determine the compensation payable to the Contractor under the Agreement.”

SCHEDULE OF VALUES

Submit type schedule complying with the format established in this section. Contractor's standard form or electronic print out format may be considered, at Project Manager's discretion.

Identification: Include on Schedule of Values the following:

- Project Name and Location
- Contract/Purchase Order #
- Contractor's Name and Address
- Date of Submittal

Format: Type in tabular form with separate columns to indicate the following for each item listed

- Work Task Name, using Project Manual Table of Contents as a content guide.
- Related Specification Section
- Name of Subcontractor
- Description of Work
- Name of manufacturer or fabricator where applicable
- Name of supplier where applicable
- Change Order amounts allocated to the line item
- Total Dollar value of item
- Percentage of contract sum represented by item, rounded to nearest one hundredth percent, adjusted to total 100 percent.
- Correlate line items with terms and identification used in other administrative work items, including schedules, list of subcontractors, list of products and suppliers, and submittal schedule.

Provide schedules as follows:

Provide separate schedule of values for each section of the building I.E. – basement, 1st floor west, 1st floor east, second floor east second floor west, Roof, site work.

Provide separate schedule of values for site work, broken down by phases where applicable- refer to project Schedule Section 01 32 16.

Where an Application for Payment may include requests for equipment, components or materials purchased, stored or fabricated, but not yet installed, provide separate line item on the schedule- activities breakdown for such items. Breakdown such line items to include component, equipment or material cost for each phase or sequence of construction, with associated staging, transport and installation cost- refer to Section 01 32 16.

The total of the amounts of all scheduled line items shall equal the Contract Sum. Refer to Specification Section 01 32 16. Round amounts to the nearest dollar.

Provide separate line item for Contractors overhead and profit. Refer to Specification Section 01 32 16.

Revise schedule to list approved Change Orders and Construction Change Directives, and submit with each Application for Payment.

The amounts shown on Schedule of Values or/and shown on the detailed schedule breakdown for tasks and activities may be used by Owner to determine the true value for additive or deductive change orders.

Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items. Contractor must clearly identify what is included in each line item. Project Manager will request specific back-up for line items as deemed necessary.

An approved Schedule of Values with the associated cost loaded work activities shall serve as the basis for the monthly certified Application for Payment. All work activities shall be cost loaded and will be the basis for payment during the beginning months of the project. All activities must be assigned cost account(s) to align with the approved Schedule of Values- refer to Section 01 32 16. The Critical Path Method Schedule to be prepared by the Contractor pursuant to this section will be a part of a total system for scheduling, reporting work progress, and preparing the monthly payment application.

If at any time, Owner determines in its reasonable discretion that the Schedule of Values does not approximate the actual cost being incurred by Contractor to perform work, Contractor shall prepare for Project Manager approval, revised Schedule of Values with detailed cost loaded work activities breakdown, which then shall be used as the basis for future progress payments. Without changing the contract amount, Owner reserves the right to require Contractor:

1. To increase or decrease amounts within the line items in the Schedule of Values; and,
2. To conform the price breakdown to Owner accounting practice.

Contractor shall submit five (5) certified copies of a Schedule of Values for review and approval by the project Manager at least (14) days before the first application for Payment.

Any requested revisions shall be corrected and returned within (3) days of receipt.

An approved copy of the Schedule of values shall be transmitted by Project Manager to Contractor and IOR.

1.2.5. APPLICATIONS FOR PAYMENT

1.2.6. Prior to the date for each progress payment review established in the Construction Procedures Manual, the Contractor Shall submit to the Project Manager a copy of the schedule with that show the activities earned values and percentage of completion for physical work proposed by the Contractor that aligned with the overall Schedule of Values, refer to Section 01 32 16. The Official Contract Schedule shall be a CPM schedule. Activity costs shall correlate with the Schedule of Values. The activities of the Contract Schedule shall be from the Schedule of Values line items and shall be the basis for establishing the distribution of costs within the Schedule of Values. Costs relating to each activity shall be distributed evenly over the duration of the activity. The Schedule will be the basis for payment. Refer to Article 9 for general conditions.

Content and Format: Utilize Schedule for activities that align with Schedule of Values for listing items in Application for Payment.

Payment Period: Monthly, scheduled as defined in General Conditions

Submit application on AIA form G702 Application and Certificate for Payment as follows:

Submit initial rough draft of pay application to Project Manager for review- refer to Specification Section 01 32 16.

Project Manager will return initial rough draft of pay application to Contractor following review.

Submit six copies of adjusted pay application to Project Manager, consisting of 3 complete copies with all back-up and justification, 2 partial copies (cover sheet, schedule of values, schedule showing the percentage of completion for activities and releases) and pencil copy showing corrections required by Project Manager on initial rough draft.

Submit conditional lien releases for work covered by current application warranting that title to all work, labor, materials and equipment covered by the application is free and clear of all liens, claims, security interests or encumbrances, and notarized unconditional releases for work covered by previous month's billings.

Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.

Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Project Manager.

Include a current fully executed Demographics Monthly Summary Reporting Form located in specification section 01 2614 with the monthly payment application, submitted in hard copy and electronic format (excel).

Entries shall match data on the Schedule of Values and Contractor's Construction Schedule per Section 01 32 16. Use updated schedules if revisions have been made. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.

The initial Application for Payment and final Application for Payment involve additional requirements.

Initial Application for payment within 60 days of NTP: Administrative actions and submittals that must precede with submittal for first verified Application for Payment include, but are not limited to:

1. Certified Schedule of Values
2. Performance and payment Bonds
3. List of principle suppliers and fabricators
4. Workers compensation certificates, if applicable
5. Auto Insurance , if applicable
6. Hazard Material Insurance certificate, if applicable
7. Construction Schedule (refer to Section 01 32 16)
8. Submittal Schedule
9. Emergency Contact list
10. Emergency Contact List of repair vendors such as fiber optics, gas, electric, sewer, etc.
11. Copy of licenses from governing authorities for performance of work
12. Certified payroll
13. Storm Water Pollution Prevention plan (SWPPP), if applicable
14. Certificate of Compliance with CEQA Mitigations, if applicable

- 1.2.7. At a meeting held on or before the 23rd of each month, the Project Manager, Inspector, and Contractor will review the contractors proposed percentages of completion and agree on a final percentage to be paid for the month.
- 1.2.8. Release of Liens: Following agreement on percentage of completion, Contractor shall submit a conditional lien release warranting that title to all work, labor, materials and equipment covered by the invoice is free and clear of all liens, claims, security interests or encumbrances. With each subsequent application, Contractor shall submit a notarized unconditional lien release for the previous applications, and conditional lien release for the current application.
- In addition to releases from the contractor, each pay application shall include lien releases from every subcontractor listed at the time of the bid and every vendor who has filed a prelim notice for the project.
 - An unconditional progress payment release which covers the period previously submitted by the contractor and paid for by the District and a conditional progress payment release for the current pay period being submitted.
 - A conditional final upon final payment will be required for the retention pay app to be processed.
 - No pay app will be processed until all releases have been received.
- 1.2.9. The Signing of a certificate for payment will constitute a representation by the Project Manager and Inspector to the Owner that, based on their observations at the site, and the data comprising the application for payment, the work has progressed to the point indicated and that, to the best of their knowledge, information and belief, the quality of work is in accordance with the Contract Documents and that the contractors are entitled to payment in the amount certified. However, by signing a certificate for payment, the Project Manager shall not thereby be deemed to represent that the Project Manager either has made exhaustive or continuous on site inspections to check the quality or quantity of the work, that either has reviewed the construction means, methods, techniques, sequences or procedures, or that either has made an examination to ascertain how or for what purpose the Contractors has used the previous payments paid on account of the contract sum.
- 1.2.10 Payments may be made by the Owner, in its sole discretion, on account of materials or equipment not incorporated into the work but delivered to the site and suitably stored and insured by the Contractor, Payments for materials or equipment stored shall only be considered upon submission by the Contractor of satisfactory evidence that it has acquired title to such material, that it will be utilized on the work under this contract and that it is satisfactorily stored, protected and insured, or such other procedures satisfactory to the Project Manager and Inspector, to protect the Owner's interests.
- 1.2.11 RETENTION
- 1.2.12 Subject to the requirements of state law, each Application for Payment shall be subject to all payments to the Contractor shall be subject to the requirements therein contained for the retention in the amount of from the monies earned by the Contractor on the contract during the progress of the work. There shall be reserved from the monies earned by the Contractor a sum equal to (5%) five percent. It is understood that, if payment requests are made in accordance with the established time schedule, payment requests received by Owner will be processed within sixty (60) days. Payment for additional work or extras, if any, under this contract shall be made in like manner. The amounts so reserved will be subject to claims of liens provided by applicable state laws in the manner and within the time now or hereafter provided by such statutes.
- 1.2.13 Pursuant to Section 22300 of the Public Contract Code of the State of California, the contract will contain provisions permitting the Contractor successful bidder to substitute securities for any moneys withheld by the Owner to ensure performance under the contract.

1.2.14 The Contractor warrants and guarantees herewith that title to all work, materials and equipment covered by an application for payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contract, whichever occurs first, free and clear of all liens, claims, security interest or encumbrances, referred to in this article as “liens”, claims, security interest or encumbrances, referred to in this article as “liens”, and that no work materials or equipment covered by an application for payment will have been acquired by the Contractor, or by any other person performing work at the site or furnishing materials and equipment for the project, subject to an agreement under which an interest of an encumbrance is retained by the seller otherwise imposed by the Contractor or such other person.

1.2.15 PROGRESS PAYMENTS

1.2.16 After a certificate of payment has been issued, the Owner shall make payment in the manner and within the time provided in the Contract Documents.

1.2.17 The contractor shall promptly pay each subcontractor (including suppliers, laborers and material men) performing labor or furnishing material for the work upon receipt of payment from the Owner out of the amount paid to the Contractor on account of the work of such subcontractor, supplier, laborer or material man, the amount of which said subcontractor, supplier, laborer or material man, the amount of which said subcontractor entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such work. The contractor shall, by an appropriate agreement with each subcontractor, also require each subcontractor to make payments to his subcontractors in a similar manner.

1.2.18 The Owner may on request, furnish to any subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for the Contractor and the action taken by the Project Manager on account of the work done by such subcontractor.

1.2.19 Neither the Owner nor the Project Manager shall have any obligation to pay nor to see to the payment of any monies to a subcontractor except as may otherwise be required by law.

1.2.20 No certificate for a progress payment nor any progress payment nor any partial or entire use or occupancy of the project by the Owner shall constitute an acceptance of any work which is not in accordance with the Contract Documents.

1.2.21 The Contractor agrees to keep the work and the site on which work is to be performed free and clear of a liens and claims of liens on materials furnished pursuant to the Contract Documents. Notwithstanding anything to the contract contained in the Contract Documents, if any such lien is filed or there is any reason to believe that any lien may be filed at any time during the progress of the work or the duration this contract, the Owner may refuse to make any payment otherwise due the Contractor or withhold from any payment due to the Contractor a sum sufficient in the opinion of the Owner to pay all obligations and expenses necessary to satisfy such lien or claim and completely indemnify the Owner against any such lien or claim unless and until the Contractor shall furnish satisfactory evidence that the indebtedness and the lien in respect thereof, if any, has been satisfied, discharged and released of record if and as provided by law pending the resolution of any dispute between the Contractor and the person filing such lien; and if such evidence is not furnished by the Contractor to the Owner within a period of five days after demand to do so, the Owner may discharge such indebtedness and deduct the amount required therefore,, together with any and all losses, costs, damages and attorneys' fees suffered or incurred by the Owner from any sum payable to the Contractor under the Contract Documents. Final payment to the Contractor may be withheld until the work and the site on which the work is to be performed are free and clear of any and all liens or rights thereto arising because of the work performed or materials furnished under the Contract Documents.

1.2.22 PAYMENTS WITHHELD

The Project Manager may decline to certify payment and may withhold their certificate in whole or in part, to the extent necessary to protect the Owner, if in their opinion they are unable to make representations to the Owner as provided in subparagraph 1.02D in this section.

If the Project Manager are unable to make representations to the Owner as provided in subparagraph 1.2.4 and to certify payment in the amount of the application, the Project Manager will notify the contractor as soon as possible, if the Contractor and the Project Manager cannot agree on a revised amount, the Project Manager will promptly issue a certificate for payment in the amount for which the Project Manager is able to make such representations to the Owner.

The Project Manager may also decline to certify payment or any part thereof or, because of subsequent observations, they may nullify the whole or any part of any certificate for payment previously issued, to such extent as may be necessary in their opinion to protect the Owner from loss because of the following conditions.

Defective work not remedied;

Third Party claims filed or reasonable evidence indicating probable filing of such claims;

Failure of the Contractor to make payments properly to subcontractors or for labor, materials or equipment;

Reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum;

Damage to the Owner or another contractor;

Failure to execute the work in accordance with the Construction schedule;

Failure to provide, maintain, and update record drawings;

Reasonable evidence that the work will not be or had not been completed within the contract time;

Failure to carry out the work in accordance with the Contract Documents;

Liens filed, or reason to believe it is probable a lien will be filed for any portion of the work;

Failure or refusal of the Contractor to fully comply with Division 1

1.2.34 UNIT PRICES

1.2.35 Unless otherwise specified, all unit prices quoted in the Bid Form for additions to or deductions from the work are the installed costs of products, including overhead and profit, taxes and other costs, so that they are the complete price to the Owner. These unit prices shall not apply to work which the contractor may elect to do or not to do, for the sake of his own convenience, nor shall they apply to work required to be performed in order to correct errors committed by the Contractor.

1.2.36 All unit prices shall be valid and in force during the life of the contract and shall be reconciled with the Contract Sum, in accordance with the General Conditions, before filing of the Notice of Completion.

1.2.37 FINAL COMPLETION AND FINAL PAYMENT

1.2.38 Upon receipt of written notice from the Contractor as required in Section 01 77 19 that the work is ready for final inspection and acceptance and upon receipt of final application for payment, the Project Manager will promptly make such inspection, and when they find the work acceptable under the Contract Documents and the Contract fully performed, the Project Manager will jointly issue a final Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final certificate, is due and payable. The final certificate for

payment will constitute a further representation that the conditions precedent, to the Contractors being entitled to final payment as set forth in subparagraph 1.4.1, have been fulfilled.

1.2.39 Retention of funds withheld will be released to the Contractor within 60 days of the date of completion of a work of improvement. Completion, is defined as occurring when a Owner begins occupancy, beneficial use, and enjoyment of work of improvement (excluding an operation for testing, startup, or commissioning) accompanied by a cessation of labor on the work of improvement. It is also considered to occur when the work is accepted by the District or its agent if a cessation of work occurs for a continuous period of 100 days or more after work on a job began and is due to factors beyond the control of the contractor; or if a cessation of work occurs for a continuous period of 30 days or more and the Owner files for a notice of cessation or a notice of completion, then the project is considered to have reached completion for the purposes of payment.

1.2.40 Neither final payment nor the remaining retention percentage shall become due until the work is free and clear of any and all liens and the Contractor submits to the Owner (1) an Affidavit that all payrolls, bills for materials and equipment and other indebtedness connected with the work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied; (2) consent of surety, if any, to final payment; and, (3) if required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the contractor, to the extent and in such form as may be designated by the Project Manager. If any subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond, satisfactory to the Owner, to indemnify him against any loss. If any such lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the Owner may be compelled to pay in discharging such lien or any sum that the Owner has reason to believe may be needed to satisfy any lien, claim or threat of lien arising out of the work. The Owner may deduct from final payment an amount equal to any costs, expenses and attorneys' fees incurred by the owner in removing or discharging any liens arising out of the work.

1.2.41 If, after substantial completion of the work, final completion thereof is materially delayed through no fault of the Contractor or by the issuance of change orders affecting final completion, and the Owner so confirms, the Owner shall, upon application by the Contractor and certification by the Project Manager, and without terminating the contract, make payment of the balance due for that portion of the work fully completed and accepted. If the remaining balance for the work not fully completed or corrected is less than the retention stipulated in the Contract Documents, the written consent of the surety to the payment due for that portion of the work fully completed and accepted shall be submitted by the contractor to the Project Manager prior to the certifications of such payment. Such payment shall be made under the terms and conditions governing final payment except that it shall not constitute a waiver of claims.

1.2.42 The making of final payment shall constitute a waiver of all claims by the Owner against the Contractor except those arising from:

1.2.43 Unsettled liens and claims against the Owner, the Project Manager, or their employees, agents or representatives;

1.2.44 Faulty or defective work appearing after substantial completion;

1.2.45 Failure of the work to comply with the requirements of the Contract Documents;

1.2.46 Failure to provide fully updated and completes record drawings

1.2.47 Any warranties contained in or required by the Contract Documents; or

1.2.48 Damages incurred by the Owner resulting from lawsuits brought against the Owner, the Project Manager, or their agents, employees or representatives because of failures or actions on the part of the Contractor, his subcontractors or sub subcontractors, or any of their employees, agents or representatives.

1.2.49 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final application for payment.

1.2.50 All provisions of this Agreement, including, without limitation, those establishing obligations and procedures, shall remain in full force and effect notwithstanding the making or acceptance of final payment prior to the Date of Substantial Completion of the Project.

1.2.51 PREPARATION OF APPLICATION FOR FINAL PAYMENT

1.2.52 Fill in application form as specified for progress payments.

1.2.53 Use continuation sheet for presenting the final statement of accounting.

1.2.54 Administrative actions and submittals, which must precede or coincide with submittal of the final payment Application for Payment include the following:

1.2.55 Occupancy permits and similar

1.2.56 Warranties (guarantees) and maintenance agreements

1.2.57 Test/adjust/balance records

1.2.58 Maintenance instructions

1.2.59 Meter readings

1.2.60 Startup performance reports

1.2.61 Change over information related to

1.2.62 Owner's occupancy, use, operation and maintenance

1.2.63 Final cleaning

1.2.64 Completion of Project Close-Out requirements

1.2.65 Completion of items specified for completion after Substantial Completion

1.2.66 Assurance that unsettled claims will be settled

1.2.67 Assurance that work not complete and accepted will be completed without undue delay

1.2.68 Transmittal of required Project construction records to Owner

1.2.69 Proof that taxes, fees and similar obligations have been paid

1.2.70 Removal of temporary facilities and services

1.2.71 Removal of surplus materials, rubbish and similar elements,

1.2.72 Change of door locks to Owner's access

1.2.73 SUBMITTAL PROCEDURE

- Submit Applications for Payment to Project Manager at the time stipulated in the agreement
- Number: Five copies of each application
- Demographics Monthly Summary Reporting Form

1.2.74 UNIT PRICES

Unless otherwise specified, all unit prices quoted in the Bid Form for additions to or deductions from the Work are the installed costs of products, including overhead and profit, taxes and other costs, so that they are the complete price to the Owner. These unit prices shall not apply to work which the Contractor may elect to do or not to do, for the sake of its own convenience, nor shall they apply to work required to be performed in order to correct errors committed by the Contractor.

Part 2 – Products

(NOT USED)

PART 3 – EXECUTION

(NOT USED)

END OF SECTION 01 20 00

SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Schedule of Values
- 1.1.2. Application for Payment.
- 1.1.3. Change procedures.
- 1.1.4. Request for Information Procedures.

1.2. SCHEDULE OF VALUES

- 1.2.1. See also General Conditions Article 9 for additional information. Article 9 supercedes information contained within this section.
- 1.2.2. Submit typed schedule complying with the format established in this Section. Contractor's standard form or electronic print-out format may be considered, at Construction Manager's discretion.
- 1.2.3. Submit Schedule of Values per schedule defined in General Conditions, modified per Document: Supplementary Conditions and as specified.
- 1.2.4. Identification: Include on schedule of values the following:
 - 1.2.4.1. Project name and Location.
 - 1.2.4.2. Construction Manager's Project Numbers.
 - 1.2.4.3. Contractor's Name and Address.
 - 1.2.4.4. Date of Submittal.
- 1.2.5. Format: Type in tabular form with separate columns to indicate the following for each item listed.
 - 1.2.5.1. Generic Name, using Project Manual table of contents as a content guide.
 - 1.2.5.2. Related Specification Section.
 - 1.2.5.3. Breakdown to include a) Materials and b) Labor separately.
 - 1.2.5.4. Name of Subcontractor.
 - 1.2.5.5. Name of manufacturer or fabricator where applicable.

- 1.2.5.6. Name of supplier where applicable.
 - 1.2.5.7. Change Order amounts allocated to the line item.
 - 1.2.5.8. Total Dollar value of item.
 - 1.2.5.9. Percentage of Contract sum represented by item, rounded to nearest one hundredth percent, adjusted to total 100 percent.
 - 1.2.6. Correlate line items with terms and identification used in other administrative work items, including schedules, list of subcontractors, list of products and suppliers, and submittal schedule.
 - 1.2.7. Provide schedules as follows.
 - 1.2.7.1. Where an Application for Payment may include requests for equipment, components or materials purchased, stored or fabricated, but not yet installed, provide separate line item on the Schedule of Values for such items. Breakdown such line items to include component, equipment or material cost for each phase or sequence of construction, with associated staging, transport and installation cost.
 - 1.2.8. The total of the amounts of all scheduled line items shall equal the Contract Sum. Round amounts to nearest dollar.
 - 1.2.9. Provide separate line item for Contractor's overhead and profit.
 - 1.2.10. Revise schedule to list approved Change Orders and Construction Change Directives, and submit with each Application for Payment.
 - 1.2.11. The amounts shown on Schedule of Values may be used by Owner to determine the true value for additive or deductive change orders.
- 1.3. INSPECTOR OF RECORD PAYMENT PROVISIONS
- 1.3.1. In the event Contractor's performance of the work activities requires the Owner's Inspector of Record to work overtime, holidays or weekends, Inspectors cost shall be reimbursed by Contractor to Owner by deductive contract adjustment.

CHANGE PROCEDURES

- 1.3.2. General
 - 1.3.2.1. See also General Conditions Article 7 for additional information. Article 7 supercedes information contained within this section.
 - 1.3.2.2. Contractor shall establish measures as needed to assure familiarity of the Contractor's staff and employees with procedures for processing changes to the Contract Documents.

- 1.3.2.3. The Contractor shall maintain and coordinate a Register of RFI's, ASI's, Contractor Change Order Requests, CCD's and Change Orders at the job site, accurately reflecting current status of all pertinent data as submitted by the Contractor.
- 1.3.3. Construction Manager will provide a single copy of all documents issued under this Article for transmission to Contractor. Contractor shall prepare copies as required for distribution to subcontractors, suppliers and others at no cost to Owner.
- 1.3.4. All changes in contract for construction, regardless of effect on Contract Price or Contract Time, require the approval of DSA in accordance with Section 4-338, Part 1, T-24 CCR, "Addenda and Change Orders".
- 1.4. PROGRESS PAYMENT COORDINATION
 - 1.4.1. See Section 01 77 19 for requirements and relationship between progress payment and maintenance of record drawings.
 - 1.4.2. See Section 01 33 00 for requirements and relationship between progress payment and construction schedule updates.
 - 1.4.3. See also General Conditions Article 9.4 for additional information. Article 9.4 supercedes information contained within this section.
 - 1.4.4. Submit application on AIA Form G702-Application and Certificate for Payment or on other form approved by the Construction Manager.
 - 1.4.5. Payment Period: as defined in General Conditions.
- 1.5. PAYMENT FOR CONTRACT MODIFICATIONS
 - 1.5.1. The Contractor shall compensate the Owner, by Owner-Contractor Contract adjustment, for the Construction Manager's reasonable costs to modify Contract Documents required by work not performed in accordance with approved Contract Documents.
- 1.6. REQUEST FOR INFORMATION
 - 1.6.1. See also General Conditions Article 7.4 for additional information. Article 7.4 supercedes information contained within this section.
 - 1.6.2. The Project Manager will respond to legitimate and bonafide Requests for Information (RFI) initiated by Contractor.
 - 1.6.3. Submit all RFI's on attached form. RFI's submitted by subcontractors or suppliers will not be reviewed.
 - 1.6.4. The Contractor shall compensate the Construction Manager's, by Owner-Contractor Contract adjustment, for the Construction Manager's reasonable costs to respond to RFI's if the P determines:
 - 1.6.4.1. The RFI does not reflect careful study and review of the documents, or;

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- 1.6.4.2. Demonstrates a lack of knowledge or construction competency reasonably expected of a Contractor performing the work.

END OF SECTION 01 2600

SECTION 01 31 13 – PROJECT COORDINATION

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Coordination.
- 1.1.2. Preconstruction conference.
- 1.1.3. Progress meetings.
- 1.1.4. Preinstallation conferences.

1.2. COORDINATION

- 1.2.1. Contractor shall comply with the following project start-up and administrative requirements for work under the Contract:
 - 1.2.1.1. **Coordinate the work and work of Subcontractors with the Project Manager as well as Superintendents from other Contractors, as it may affect other construction project or other projects on the Site.**
 - 1.2.1.2. Establish procedures for the orderly progress and prosecution of the work, including, but not limited to, attendance at project meetings, communication and documentation procedures, submittal processing, and control of the site.
 - 1.2.1.3. Coordinate work with all inspection and testing, including compliance with all agency inspection criteria, including DSA inspections.
 - 1.2.1.4. Coordinate and monitor use of temporary utilities, conserving energy where feasible.
 - 1.2.1.5. Prepare detailed schedule for all subcontractors in compliance with Section 01 33 00 and Section 01 32 16. Coordinate scheduling of work, submittals, and inspection/testing to assure the efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later. Monitor schedules for compliance with completion dates, modify and recommend adjustments. Manage subcontractors work, including monitoring of work force, work completed and impact on schedule
 - 1.2.1.6. Coordinate completion and clean up the Work in preparation for Substantial Completion.
 - 1.2.1.7. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

- 1.2.2. Contractor shall comply with the following requirements for coordinating the Work:
 - 1.2.2.1. Coordinate all work with the Project Manager as well as Superintendents from other Contractors so that there are no conflicts or delays.
 - 1.2.2.2. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various trades having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
 - 1.2.2.3. Coordinate space requirements and installation of mechanical and electrical work, which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with the line of the building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
 - 1.2.2.4. Unless otherwise indicated, where piping, ducts, and wiring occurs in finished areas, conceal such pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements and the Project Manager.

1.3. PRECONSTRUCTION CONFERENCE

- 1.3.1. Project Manager will schedule a conference upon execution of the Contract.
- 1.3.2. Attendance Required: Owner, Owner's Project Inspector, Owner's Testing Service representative, Project Manager, Contractor, including assigned superintendent and foreman. Obtain Project Manager's prior approval of major subcontractor attendance if applicable.
- 1.3.3. Agenda:
 - 1.3.3.1. Organizational structure of project, schedule overview and other project characteristics.
 - 1.3.3.2. Designation of responsible staff representing the parties required for implementation of the project, including Contractor, Project Manager, and others.
 - 1.3.3.3. Submission of list of Subcontractors, list of Products, draft schedule of values, and progress schedule for review.
 - 1.3.3.4. Procedures and processing of field decisions, submittals, substitutions, proposal request, Change Orders and Contract closeout procedures.
 - 1.3.3.5. Scheduling, including coordination with work of others.
 - 1.3.3.6. Use of premises by Owner, Contractor, Project Manager.
 - 1.3.3.7. Owner's requirements and partial occupancy.

- 1.3.3.8. Construction facilities and controls provided by Owner.
- 1.3.3.9. Temporary utilities considerations.
- 1.3.3.10. Security and housekeeping procedures.
- 1.3.3.11. Procedures for testing.
- 1.3.3.12. Procedures for maintaining record documents.
- 1.3.3.13. Requirements for start-up of equipment.
- 1.3.3.14. Inspection and acceptance of equipment put into service during construction period.

1.4. PROGRESS MEETINGS

- 1.4.1. Project Manager will schedule and administer meetings throughout progress of the work at weekly intervals.
 - 1.4.1.1. Contractor shall assign the same staff members to represent and act on behalf of the Contractor at all progress meetings.
- 1.4.2. Project Manager will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- 1.4.3. Attendance Required: Contractor Project Manager, Contractor superintendent, major Subcontractors and suppliers as requested, Owner, Project Manager, or Engineer, Project Inspector and others as appropriate to agenda topics for each meeting.
- 1.4.4. Agenda:
 - 1.4.4.1. Review minutes of previous meetings.
 - 1.4.4.2. Review of Work progress.
 - 1.4.4.3. Field observations, problems, and decisions.
 - 1.4.4.4. Identification of problems, which impede planned progress.
 - 1.4.4.5. Review of submittals schedule and status of submittals.
 - 1.4.4.6. Review of off-site fabrication and delivery schedules.
 - 1.4.4.7. Maintenance of progress schedule.
 - 1.4.4.8. Corrective measures to regain projected schedules.
 - 1.4.4.9. Planned progress during succeeding work period.
 - 1.4.4.10. Coordination of projected progress.

- 1.4.4.11. Maintenance of quality and work standards.
- 1.4.4.12. Effect of proposed changes on progress schedule and coordination.
- 1.4.4.13. Other business relating to Work.

1.5. PREINSTALLATION CONFERENCES

- 1.5.1. When required by Project Manager or in individual specification Sections, convene a pre-installation conference at work site prior to commencing work of the Section.
- 1.5.2. Require attendance of parties directly affecting, or affected by, work of the specific Section.
- 1.5.3. Notify Project Manager and Inspector of Record a minimum four (4) days in advance of meeting date.
- 1.5.4. Contractor will prepare agenda, preside at conference, record minutes, and distribute copies within two days after conference to participants, with submittal to Project Manager.
- 1.5.5. Review conditions of installation, preparation and installation procedures, and coordination with related work.

1.6. MINUTES OF MEETINGS

- 1.6.1. Project Manager shall compile detailed minutes of the meetings, except pre-installation conferences, and furnish one copy to the Owner, Contractor and Inspector. Minutes shall record discussion, actions taken, and issues assigned to parties responsible for resolution.
- 1.6.2. Recipients of minutes may make additional copies as they desire.
- 1.6.3. Published minutes will be accepted as properly stating the activities and decision of the Meeting unless they are challenged in writing prior to the next regularly scheduled Progress Meeting.
 - 1.6.3.1. Persons challenging published minutes are responsible to reproduce and distribute copies of challenge to all recipients of the particular minutes being challenged.
 - 1.6.3.2. Settle challenge as priority item of 'old business' at the next regularly scheduled meeting.
- 1.6.4. Except for pre-installation conferences, Contractor shall not prepare or distribute meeting minutes. Project Manager will not review or take action on any meeting minutes prepared by Contractor.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 31 13

SECTION 01 3216 – PROJECT CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The following applies to this section:
 - 1. General provisions of the Contract, including General and Supplementary Conditions.
 - 2. The Drawings.
 - 3. Division 01 Specification Sections and related requirements in other sections of the Project Manual.
 - 4. Related requirements in other Contract Documents listed in the Agreement.
- B. Review these documents for coordination with additional requirements and information that apply to work under this Section

1.2 DESCRIPTION

- A. Requirements for CPM scheduling are included to insure adequate planning and execution of the Work and to assist the Owner in evaluating progress of the Work economically and chronologically.
- B. The Contractor shall be solely responsible for establishing the schedule for the Work and shall be responsible for such schedule to be consistent with meeting the contract milestone, intermediate milestones, and completion dates as established by the Owner.
 - 1. General Contractor shall prepare and submit per the time constraints identified in this section, a project schedule consisting of their scope of work, milestones, and work sequence to be incorporated into the development of the project baseline schedule. The Conditions of the contract and the other sections of Division 1 apply to this section as fully as if repeated herein.
 - 2. The Contractor shall prepare and submit to the Owner a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the salient features of the work (including acquiring materials and equipment).
 - 3. The schedule shall be in the form of a CPM (critical path method) schedule, of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period.
 - 4. The scheduled completion date shall be the same as the contractual completion date, for the initial schedule and subsequent updates. Any proposed early completion date shall show the difference between that date and the contract completion date as Float, which shall belong to both the Owner and Contractor.
 - 5. If, in the opinion of the Owner, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, without additional cost to the Owner. The Contractor shall submit any supplementary schedule or schedules in CPM form as the Owner deems necessary to demonstrate how the approved rate of progress will be regained.
 - 6. All schedule updates must accurately reflect the as-built schedule. There shall be no change to the Critical Path without the Owner's written consent.
 - 7. Sequencing of the scope of work shall be coordinated with the Owner's Project Manager and Campus.

1.3 QUALITY ASSURANCE

- A. Contractor shall designate a scheduler and present that designee for Owner approval. Scheduler shall be trained and experienced in compiling construction scheduling data, in analyzing scheduling data by use of CPM, and in the preparation and issuance of periodic reports as required herein. The Contractor's Scheduling Representative shall have direct control and complete authority to act on behalf of the

Contractor in fulfilling all project schedule requirements.

B. The CPM Progress Schedule shall be prepared based on the principles defined by the latest issue of the Construction Planning & Scheduling Manual published by the Associated General Contractors of America, except where superseded by the contract documents and this specification.

C. Software: This work shall consist of preparing, maintaining and submitting a Progress Schedule using the Critical Path Method on Primavera P6 software, or newer release, which demonstrates complete fulfillment of all work shown in the contract documents. All work to prepare, and maintain the CPM Progress Schedule shall be performed using the scheduling software application provided by the Owner on network servers and accessed through the Internet with Owner provided user accounts.

1.4 OFFICIAL CONTRACT SCHEDULE (Baseline Schedule)

- A. The Critical Path Method Schedule to be prepared by the Contractor pursuant to this section will be a part of a total system for scheduling, reporting work progress, and preparing the monthly payment application.
1. Within thirty (30) calendar days after the Notice to Proceed, the Contractor shall submit the complete project schedule to the Owner's PM for review.
 2. The approved Interim Schedule shall be incorporated into the final Contract Schedule and shall represent the initial forty five (45) calendar days of the Contract Schedule.
 3. The initial submittal of the Contract Schedule shall not reflect contract changes or delays. These changes shall be added within the first Schedule Revision.
 4. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
 5. The Official Contract Schedule shall not extend beyond the number of calendar days specified in the Contract. The baseline schedule shall have a data date of the first working day of the contract and not include any completed work to date. The baseline schedule shall not attribute negative float or negative lag to any activity.
 6. Schedule review by the Owner and its agents is limited to ensuring the logic of sequencing is reasonable and Contractor has demonstrated ability to meet contractual milestone and completion dates. Acceptance of schedule should not be construed as direction from the Owner to Contractor on how to schedule the work. Construction Manager shall review and return with comments within five (5) working days of receipt of the schedule submittal. The re-submittal must be returned within seven (7) calendar days from receipt of the Project Manager's request for revision to the baseline schedule. This process will continue until the baseline schedule is accepted. With each re-submittal, the contractor shall include a narrative with a brief statement for each review comment that explains how that comment was addressed. Any revisions made as a result of the review comments, shall be made by the Contractor at no additional cost to the Owner. The first progress payment will not be given if the Interim schedule has not been accepted.
 7. Should the Contract Schedule not be accepted within sixty (60) calendar days after Notice to Proceed, the Contractor may be due provisional progress payments(s) on work performed, based on the Interim Schedule. It is the responsibility of the Contractor to reconcile such cost information and payments

with the Contract Schedule. However, no payment shall be approved after the sixty (60) calendar day period, until the Contract Schedule has been accepted by the Owner.

8. After Completion and Acceptance of the Official Contract Schedule: The Contractor will provide initial computer reports and weekly and monthly reports thereafter.
9. The project schedule shall be computer generated, time scaled, and critical path method (CPM) network utilizing the precedence diagram method of representation. The number of activities shall be sufficient to assure adequate planning of the project, to permit monitoring and evaluation of progress, and to do an analysis of time impacts. Schedule activities shall include the following:
 - a. Activity Name – Clearly and uniquely define each activity name with a description of the work that is readily identifiable to inspection staff. Each activity shall have a narrative description consisting at a minimum of a verb or work function (i.e. form, pour, excavate etc) and object (i.e. slab, footing, wall etc) and a location (i.e. room number, gridline, column line etc.)
 - b. Start and finish dates
 - c. Construction activities shall have duration not to exceed Fifteen (15) calendar days. If an activity is greater than Fifteen (15) calendar days, the activity will need to be split or phased.
 - d. All holidays and non-working days shall be identified by way of calendar designations. Refer to General and Supplementary Conditions for recognized Designated Holidays. The schedule shall clearly indicate any work that is planned to be accomplished on a work schedule other than eight (8) hours per day and forty (40) hours per week.
 - e. The schedule shall include an activity for “Owner / Architect punch walk & list distribution” with a Seven (7) calendar day duration for each area.
 - f. Punch walk / Correction Activity shall not have duration longer than Fifteen (15) calendar days.
 - g. At least one predecessor and one successor is required for each activity, except for the project start and finish milestones.
 - h. All required constraints.
 - i. Codes for responsibility, stage, work shifts, and location.
10. **Activities:** The initial submittal of the Official Contract Schedule shall include, in addition to construction activities, the following:
 - a. The submittal and approval of construction drawings, shop drawings and materials, the procurement, fabrication, delivery, and testing of major materials and equipment, and their installation and testing.
 - b. Contract requirement dates of all or parts of the Work will be shown including all activities of the Owner that affect the progress of the work.
 - c. Activities of completed work ready for use by next trade, etc.
 - d. Activities relating to different areas of responsibility, such as sub-contracted Work which is distinctly separate from that being done by Contractor directly. Each activity shall represent the work of a single subcontractor.
 - e. Different categories of Work as distinguished by craft or crew requirements.
 - f. Different categories of Work as distinguished by materials.
 - g. Distinct and identifiable subdivisions of Work such as structural slabs, beams, or columns. Location of Work within the project that necessitates different times or crew to perform.
 - h. Outage schedules of limiting times that existing utility services may be interrupted to construct the Project.

- i. Acquisition and installation of equipment and materials supplied and/or installed by Owner or separate Contractors.
 - j. Material stored on site.
11. **Major Equipment/Materials:** For all major equipment and materials fabricated or supplied for Project, including All items identified as “Riverside County Design Submittals”, the Construction Schedule shall show a sequence of activities including:
- a. Preparation of shop drawings and sample submissions.
 - b. Receiving approval of the design drawings, calculation and specification.
 - c. Time required to obtain special inspection certifications and additional permits or certifications that may be required for specific tasks and/or systems (i.e., elevator variance).
 - d. Review of shop drawings and samples.
 - e. Shop fabrication, delivery, and storage.
 - f. Erection or installation.
 - g. Test of equipment and materials.
 - h. Required dates of completion.
12. **Milestones:**
- a. **Standard Work Hours:** Regular Construction Work Hours and Construction Site Access are Monday through Friday 7:00a.m. – 4:00pm.
 - b. **Notice to Proceed Milestones**
 - i. **Submittals and Material Procurement – Start April 16, 2018 – End May 29, 2018 - (43 Calendar Days) issued after District Board Approval and execution of the contract.**
 - ii. **Construction (73 Calendar Days) – Must start on May 29, 2018 and must be completed no later than August 10,2018.** Shall consist of all general requirements, including but not limited to required surveys, submittals, deferred approvals, permits and approvals, pre-construction meetings and activities, site walks, long lead procurement requirements, hall off, installation, operation, final cleaning and complete contract scope of work as defined in the project documents by May 29, 2018.
 - iii. **DSA and Project Closeout – Start August 10, 2018 and complete no later than September 9,2018 (30 Calendar Days).** Shall consist of submission and approval of closeout items such as warranties, O&M manuals, Record Drawings and DSA closeout documentation.
 - c. **Interim Milestones**
 - i. No interim milestone for this project.
 - d. **Completion Milestones**
 - i. Substantial Completion: (1) calendar day, within duration of NTP 2.
 - ii. Punch list: (10) calendar days, within duration of NTP 2.
 - iii. Final Completion (1) calendar day, within duration of NTP 3.
 - iv. Notice of Completion (1) calendar day, within duration of NTP 3.
 - e. **Phasing of Work**
 - i. Constraints: See General Requirements Division 1, Section 01 32 16; Project Construction Schedule.
13. **Contract Time and Sequencing:** The Official Contract Schedule shall include the entire scope of work and show how the Contractor plans to complete the work. The CPM schedule shall show the order in which the Contractor proposes to carry out the work with logical links between time-scaled work

activities, and calculations made using the critical path method to determine the controlling operation(s). The Contractor is responsible for assuring that all activity sequences are logical and that each schedule shows a coordinated plan for complete performance of the work.

- a. All analysis of time impacts shall be based upon total float. Total float shall be the difference in calendar days between the late finish date and the early finish date of an activity. Float shall be a jointly owned resource. Float shall be consumed by both the Owner and the Contractor on a first come first served basis.
- b. The contract completion milestone shall represent the completion of all construction related work.
- c. The anticipated weather related delays as noted in "Weather Days" 1.8 of this division shall be taken into consideration and included with the duration of the applicable schedule activity(s).
- d. The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operations, Sundays and holidays as may be necessary to insure the prosecution and completion of the Work in accordance with the Final Baseline schedule.

14. **Relationships:** All activities shall be linked by realistic logical Finish-to-Start relationships only. Other type of relationships shall be permitted but shall be minimized (including start-to-start and finish-to-finish). The Owner's PM will reject any schedule utilizing unrealistic or meaningless logic. Constraints on activities shall be kept to a minimum and subject to the written permission of the Owner's PM. Negative lags will not be used without the prior written permission of the Owner.

15. **Critical Activities:** The schedule shall show the activities that define the critical path. Multiple critical paths will not be accepted. A total of no more than 25 percent of the baseline schedule activities shall be critical or near critical, unless otherwise authorized by the Owner's PM. Near critical is defined as float less than ten (10) days.

1.6 UPDATE SCHEDULES

A. The Contractor shall submit an Update Schedule – hard copy and electronic copy -- and meet with the Owner's PM to review progress, before the first day of each month, beginning one month after the Baseline Schedule is accepted. The Contractor shall allow Seven (7) calendar days for the Owner's PM to review after the update schedule and all supporting data are provided, except that the review period shall not start until the previous month's required schedule is accepted.

1. The Update Schedule shall have a data date of the end of the month or other date established by the Owner's PM. The update schedule shall show the status of work actually completed to date and the work yet to be performed as planned. Actual activity start dates, percentage complete, and finish dates shall be shown. Actual Durations for work that has been completed shall be shown on the Update Schedules for when the work actually occurred, including submittal reviews and contractor re-submittal times. The update submittal scope shall contain the following information:

- i. Actual Start and finish dates
- ii. Percent complete and remaining duration
- iii. A narrative explaining each change to the record schedule
- iv. A tabular listing of all activities including: Activity data, activity identifier, description, remaining duration, total float, and activity.
- v. Narrative of manpower used verses manpower allocated in the schedule
- vi. Daily reports signed daily by the Project Management Representative.

- vii. Copies of confirmation letters from vendors and/or manufactures confirming material orders.
- 2. The Contractor may include modifications such as adding or deleting activities or changing activity constraints, durations, or logic that do not: (1) alter the critical path(s) or near critical path(s), or (2) extend the schedule completion date compared to that shown on the current accepted schedule. The Contractor shall provide a narrative in writing that states the reasons for any changes to the planned work. If any propose changes in planned work will result in (1) or (2) above, then Contractor shall submit a time impact analysis as described herein.
- 3. Any request for an adjustment of the Contract Time for completion submitted by Contractor for changes or alleged delays shall be accompanied by a complete Time Impact Analysis, (TIA), which shall be submitted for review within fifteen (15) days after the initial request for time by Contractor, or the impacting incident, whichever comes first.
- 4. **Narrative Reports:** Monthly Narrative Reports shall contain the following information for each monthly update:
 - a. Description of overall project status
 - b. Description of problem areas (referenced to pending change orders as appropriate)
 - c. Current and anticipated delays not resolved by approved change order, including:
 - 1) Cause of the delay
 - 2) Corrective action and schedule adjustments to correct the delay
 - 3) Known or potential impact of the delay on other activities and milestones.
 - 4) Changes in the construction sequence
 - 5) Pending items and status thereof, including but not limited to:
 - a) Pending Change Orders
 - b) Time Extension Requests
 - c) Other Issues relating to Contract Time
- 5. Contract Completion Date status:
 - a) If ahead of schedule, the number of calendar days ahead
 - b) If behind schedule, the number of calendar days behind
- 6. **Three-week Window:** Weekly, for the progress meeting, the Contractor shall produce a three-week window of the current schedule, indicating activities scheduled for the current and following two week period.
- 8. **Payment Progress Reporting:** Owner and Contractor shall select a specified time for updating the Project Schedule at the jobsite each month. (Reference General Conditions Article 9 Progress Payments)
 - a. The Owner and Contractor and his/her designated scheduling representatives will attend the meeting to review the project progress.
 - b. The schedule shall be the basis for monthly pay requests derived from the joint review of the schedule update.
 - c. All progress and status information provided by the Contractor shall clearly define the reporting period for which the status is provided.
- 9. At the monthly progress review meeting coinciding with the Pencil Draft Date/meeting (see article 9 Progress Payments) the Contractor will provide "actual start" and "actual completion"

dates for activities that were started or completed during the reporting period(for purposes of forecasting activities with an agreed upon completion for that period will be counted for payment application purposes only). The Contractor and the Owner's PM will agree upon and assign percent complete values to activities in progress. In the event of a disagreement, the Owner's PM shall make the final decision as to percent completion of each activity.

10. After joint review, Owner's PM will process the Contractor's pay request based on progress from the schedule in conjunction with approved Schedule of Values associated with those progressed activities.
 - a. Payment to the Contractor shall be made from the progress reflected by the Interim or the Contract Schedule.
11. Time is of the essence: Whenever it becomes apparent from the current monthly progress review that phases of Work or the Contract Completion Date will not be met, through no fault of the Owner, the Contractor will take the following actions with no change in the contract amount:
 - a. Increase construction manpower to eliminate any adverse backlog of work.
 - b. Increase the number of working hours per shift, shifts per day, working days per week, the amount of construction equipment, or any combination of the foregoing to eliminate the adverse backlog of Work.
12. The Official Contract Schedule as accepted by the Owner's PM will be an integral part of the Contract, and will establish interim Contract Completion Dates or milestone dates for the various activities.
13. Delays of any non-critical Work shall not be the basis for an extension of Contract Time.
14. **FLOAT TIME**; Float is defined as the time that a non-critical Work activity can be delayed or extended without delaying the scheduled completion of milestones specified in this Section or the scheduled completion date of the Work, or both. **Float time is not for the exclusive use or benefit of either Owner or Contractor. Neither Contractor nor Owner shall have an exclusive right to the use of float. Contractor is to document the effect on the updated Contract Schedule whenever float has been used.**
15. It is expressly understood and agreed that the failure by the Owner to either order the Contractor to expedite an activity or to expedite the activity by other means, pursuant to the two preceding paragraphs, shall not be considered precedent setting with respect to any other activities which may fall behind the Official Contract Schedule approved by the Owner; nor will it relieve the Contractor from completion of the Project Work in accordance with the Official Contract Schedule and the Contract Completion Date.
16. Owner's acceptance of, or its review of, comments about any schedule or scheduling data shall not relieve the Contractor from its sole responsibility to plan for, perform, and complete the Work within the Contract Time. Acceptance of or review of comments about any schedule shall not transfer responsibility for any schedule to Owner nor imply their agreement with (1) any assumption upon which such schedule is based, or (2) any matter underlying or contained in such schedule.

17. Failure of Owner to discover errors or omissions in schedules that it has reviewed, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Contract Schedule shall not relieve Contractor from its sole responsibility to perform and complete the Work within the Contract Time and shall not be a cause for an adjustment of the Contract Time or the Contract Sum.

B. Schedule Revisions:

1. **General:** Revisions to accepted Construction Schedule must be approved in writing by the Owner and Contractor.
2. **Contractor:** Submit requests for revision to schedule to the Owner's PM together with a Time Impact Analysis (TIA) and a written rationale for revisions and description of logic for re-sequencing Work and maintaining Specific Contractual Milestone Dates listed in Contract Documents.
3. Proposed revisions acceptable to Owner may then be incorporated into next update of Construction Schedule following the review and acceptance.
4. **Acceptance:** Acceptance of revised schedule by Owner does not relieve Contractor of meeting contractual milestone and completion dates.

1.7 RECOVERY SCHEDULE

- A. **General:** Should updated Construction Schedule show Contractor to be Ten (10) s or more calendar days behind schedule at any time during construction, Contractor will prepare Recovery Schedule displayed on CPM schedule, at no additional costs to Owner. Prepare Recovery Schedule to show plan for returning to original schedule as expeditiously as possible, and in a manner that complies with paragraph 1.07 Update Schedules, requirements.
- B. **Schedule Preparation:** Within three (3) calendar days after notice from Owner's PM, prepare and submit to Owner's PM a Recovery Schedule, incorporating best available information from Subcontractors and others which will permit return to Construction Schedule at earliest possible time. Prepare Recovery Schedule to same level of detail as Construction Schedule and for maximum duration of one (1) month.
- C. **Schedule Review:** Within seven (7) calendar days after notice from Owner, participate in conference with Owner and Owner's PM to review and evaluate Recovery Schedule. Submit revisions necessitated by review for Owner's acceptance within Three (3) calendar days of conference. Use accepted Recovery Schedule for its planned duration as basis for return to Construction Schedule.
- D. **Schedule Assessment:** Seven (7) days prior to expiration of Recovery Schedule, confer with Owner's PM to assess effectiveness of Recovery Schedule. As a result of this conference, Owner's PM will direct Contractor as follows:
 1. **Behind Schedule:** If Owner's PM determines Contractor is still behind schedule, Owner's PM will direct Contractor to prepare another Recovery Schedule for subsequent pay period.
 2. **On Schedule:** If Owner' PM determines Contractor has successfully complied with provisions of Recovery Schedule, Owner's PM will direct Contractor to return to use of Construction Schedule.

1.8 REQUEST FOR TIME EXTENSION

A. In the event the Contractor requests an extension of contract time for unavoidable delay, justification shall be submitted no later than seven (7) calendar days after the initial occurrence of any such delay. When requesting time for proposed change orders, the request(s) must be submitted with the proposed change order with full justification. If the Contractor fails to submit justification he shall waive his right to a time extension at a later date. Justification must be based on the currently accepted contract schedule as updated at the time of occurrence of delay or execution of work related to any change(s) in the scope of work. The justification must include a schedule, including, but not limited to, the following :

B. Time Impact Analysis (TIA):

C. The Contractor shall submit a written impact analysis (TIA) – hard copy and electronic -- to the Owner's Project Manager with each request for adjustment of contract time, or when the Contractor or Owner's Project Manager consider that an approved or anticipated change may impact the critical path or contract progress.

D. The TIA shall illustrate the impacts of each change or delay on the current schedule completion date or internal milestone, as appropriate. The analysis shall use the accepted schedule that has a data date closest to and prior to the event. If the Owner's PM determines that the accepted schedule used does not appropriately represent the conditions prior to the event, the accepted schedule shall be updated to the day before the event being analyzed. The TIA shall include an impact schedule developed from incorporating the event into the accepted schedule by adding or deleting activities, or by changing durations or logic of existing activities. If the impact schedule shows that incorporating the event modifies the critical path and scheduled completion date of the Official Contract Schedule, the difference between scheduled completion dates of the two schedules shall be equal to the adjustment of contract time. The Owner's PM may construct and utilize an appropriate project schedule or other recognized method to determine adjustments in contract time until the Contractor provides the TIA.

E. The Contractor shall submit a TIA in duplicate within 7 calendar days of receiving a written request for a TIA from the Owner's PM. The Contractor shall allow the Owner's PM 14 calendar days after receipt to accept or reject the submitted TIA. All approved TIA schedule changes shall be shown on the next update schedule.

F. If a TIA submitted by the Contractor is rejected by the Owner's PM, the Contractor shall meet with the Owner's PM to discuss and resolve issues related to the TIA. If agreement is not reached, the Contractor will be allowed 21 calendar days from the meeting to give notice of potential claim, as noted in Section 00 70 10 General Conditions. The Contractor shall only show actual as-built work, not unapproved changes related to the TIA, in subsequent update schedules. If agreement is reached at a later date, approved TIA schedule changes shall be shown on the next update schedule. The Owner's PM will withhold remaining payment on the schedule contract item if a TIA is requested by the Owner's PM and not submitted by the Contractor within 21 calendar days. The schedule item payment will resume on the next payment application after the requested TIA is submitted. No other contract payment will be retained regarding TIA submittals.

- G. In the event the Contractor disagrees with the Owner’s decision, the Contractor shall be required to submit a claim pursuant to the DISPUTE Resolution process. (See article 4.5 of the General Conditions.)
- H. The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

1.9 WEATHER DAY ALLOWANCE

- A. The Contractor will only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions, which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by NOAA weather data. No less than 44 calendar days will be allotted for in the Contractor’s schedule. The weather days shall be shown on the schedule and if not used will become float for the Project’s use. If the weather is unusually severe in excess of the NOAA data norm and prevents the Contractor from beginning work at the usual daily starting time, or prevents the Contractor from proceeding with seventy-five (75%) of the work force for the critical path activities for a period longer than four hours. Based on the approved baseline schedule contractor shall document workforce, schedule activities, weather report and daily reports, submit to Project Manager for approval. Upon completion of review and approval by the Project Manager/Owner, will designate such time as unavoidable delay and grant one (1) calendar-day extension. Weather delay will only grant time extension, no additional cost.
- B. Normal weather conditions shall be considered and included in the planning and scheduling of all work influenced by high or low ambient temperatures and/or precipitation to ensure completion of all work within the Contract Time.
- C. Time extensions for unusually severe weather: This provision specifies the procedure for determination of time extensions for unusually severe weather. The listing below defines the monthly anticipated adverse weather in Calendar Days to be used for the Contract Period.

Monthly anticipated adverse weather days:

January	7
February	7
March	7
April	5
May	3
June	1
July	0
August	1
September	1
October	3
November	4
December	5

San Bernardino Community College District
Fire Alarm - Planetarium & Liberal Arts Upgrade
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- D. The above schedule of anticipated adverse weather will constitute the base line for monthly weather evaluations. Upon acknowledgment of the Notice to Proceed, and continuing throughout the Contract, actual adverse weather days will be recorded on a work day basis and compared to the monthly anticipated adverse weather days listed above.
- E. The number of actual adverse weather delays shall be calculated chronologically from the Notice to Proceed date for 365 calendar days. The Project Manager will convert any qualifying delays to calendar days on an annual basis. If the number of actual adverse weather days, for each year or portion thereof, exceeds the number of anticipated adverse weather days, an equitable adjustment in calendar days to the Contract performance period will be made.

2.0 FINAL UPDATE SCHEDULE

- A. The Contractor shall submit a final as-built schedule with actual start and finish dates for the activities, within 30 calendar days after completion of the contract work. The Contractor shall provide a written statement with this submittal signed by the Contractor's Project Manager and an officer of the company stating, "To my knowledge and belief, the enclosed final update schedule reflects the actual start and finish dates of the actual activities for the project contained herein." An officer of the company may delegate in writing the authority to sign the statement to a responsible manager.

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Submittal procedures.
- 1.1.2. Construction progress schedules.
- 1.1.3. Proposed Products list.
- 1.1.4. Shop drawings.
- 1.1.5. Product data.
- 1.1.6. Samples.
- 1.1.7. Manufacturers' instructions.
- 1.1.8. Manufacturers' certificates.

1.2. SUBMITTAL PROCEDURES

- 1.2.1. Transmit required submittals to Project Manager *per criteria in the General Conditions*
 - 1.2.1.1. See also General Conditions Article 3.9 for additional information. Article 3.9 supercedes information contained within this section.
 - 1.2.1.2. Transmit submittals within time periods established by the General Requirements and as required to maintain orderly and sequential progress of the work.
 - 1.2.1.3. Maintain complete and current submittal log, indicating status of all submittals and re-submittals. Provide summary of submittal status at pay request meeting and weekly progress meetings.
- 1.2.2. Failure to make timely submittals will not be reason for extension of Contract Time.
- 1.2.3. Project Manager's review of submittals shall not relieve the Contractor for compliance with the Contract Documents, or for responsibility for deviations from Contract Documents.
 - 1.2.3.1. In review of submittals, Project Manager will not provide dimensions or elevations for field conditions, or for conditions available from a detailed review of documents.
- 1.2.4. Copying of Contract Documents for use as submittals is not acceptable. Contractor shall produce original documents for shop drawings and other submittals.

- 1.2.5. Transmit each submittal separately through the Project Manager.
 - 1.2.5.1. Combine required material for a single specification Section into a single submittal. Incomplete or partial submittals will be returned without action for re-submittal in proper form.
 - 1.2.5.2. Do not combine data from more than one specification section or drawing component into a single submittal. Such submittals received will be returned without action for re-submittal in proper form.
 - 1.2.5.3. Submittals not reviewed by General Contractor will be returned without action for proper review and re-submittal.
- 1.2.6. Sequentially number the transmittal forms.
- 1.2.7. Submittals to be numbered by spec section and sequential number. Re-submittals to have original number with an alphabetic or numeric suffix, such as R-1.
- 1.2.8. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- 1.2.9. Schedule submittals to expedite the Project, and deliver to Project Manager at business address. Coordinate submission of related items.
- 1.2.10. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
 - 1.2.10.1. Clearly identify, with bold clouding, or other graphic notation, all deviations from Contract Documents. Provide boxed note at clouded deviation specifically requesting approval of proposed change. Provide documentation of proposed change, including additional graphics and data as required by Project Manager.
- 1.3. PROPOSED PRODUCTS LIST AND PRODUCT DATA
 - 1.3.1. Where specified in individual sections, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number for each product and supporting product data.
 - 1.3.1.1. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
 - 1.3.2. Unless otherwise specified in General Conditions 3.9.2.2 submit product data in quantity of three (3) copies. Project Manager will review a maximum of three (3) copies of submittal.
 - 1.3.3. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project. Mark out items that are not applicable to the project.

- 1.3.4. After review, distribute in accordance with this Section and provide copies for Project Record Documents described in Section 01 77 19 – Closeout Requirements.

1.4. SHOP DRAWINGS

- 1.4.1. Submit in the form defined in the General Conditions and as specified.
 - 1.4.1.1. Submit shop drawings for the following work areas in vellum or sepia reproducible form only, with one blueprint copy. Shop Drawings for these work areas provided in print form will be returned unmarked.
 - 1.4.1.1.1. Structural Steel, steel fabrications and metal decking.
 - 1.4.1.1.2. Reinforcing Steel
 - 1.4.1.1.3. Casework, cast plastic fabrications and millwork.
 - 1.4.1.1.4. Aluminum Storefront systems.
 - 1.4.1.1.5. Flashing and Sheet metal.
 - 1.4.1.1.6. Preformed Metal Wall and Roofing Panels.
 - 1.4.1.1.7. Elevator Guide Rail Supports and Anchorage
- 1.4.2. Provide the following information on each sheet:
 - 1.4.2.1. Project name and location.
 - 1.4.2.2. Contractor name and address.
 - 1.4.2.3. Subcontractor, manufacturer, or fabricator name and address.
 - 1.4.2.4. Date and scale of drawings
 - 1.4.2.5. Space for Contractor's review and approval stamp.
- 1.4.3. After review, reproduce and distribute in accordance with this Section and as described for Project Record Drawings in Section 01 77 19 – Closeout Requirements.

1.5. MANUFACTURER'S INSTRUCTIONS AND CERTIFICATES

- 1.5.1. When specified in individual specification Sections, submit manufacturers certificates and instructions for delivery, storage, assembly, installation, start - up, adjusting, and finishing, in quantities specified for Product Data.
- 1.5.2. Identify conflicts between manufacturers' instructions and Contract Documents.
- 1.5.3. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

- 1.5.4. Certificates may be recent or previous test results on material or Product, but must address current regulatory requirements and be acceptable to Project Manager.

1.6. SAMPLES

- 1.6.1. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

- 1.6.2. Include identification on each sample, with full Project information.

- 1.6.3. Submit the number of samples of selected finish color, texture, and pattern as specified in individual specification Sections, with a minimum of five samples provided. Where multiple samples are specified, the Project Manager will retain four sets.

- 1.6.4. See General Conditions and Section 01 32 16

1.7. SUBSTITUTIONS

- 1.7.1. *Substitutions will be considered in accordance with the General Conditions Article 3.9.4.*

- 1.7.2. *Substitutions will not be considered when indicated or implied on shop drawings or other forms of submittal without separate written request for substitution.*

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not used

END OF SECTION 01 33 00

SECTION 01 35 17 – ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Products and installation for patching and extending Work.
- 1.1.2. Transition and adjustments.
- 1.1.3. Repair of damaged surfaces, finishes, and cleaning.

1.2. QUALITY ASSURANCE

- 1.2.1. Use only personnel who are thoroughly trained and experienced in the skills required and have installed similar applications of the specified products within one year prior to beginning work of this section.
- 1.2.2. Use only staff that is completely familiar with the requirements of this work.

1.3. ASBESTOS CONTAINING MATERIALS

- 1.3.1. Contractor is specifically notified that certain existing materials may contain asbestos, and such materials may be encountered during the course of this work. It is anticipated the underground utilities may contain asbestos. Contractor shall comply with all applicable laws and ordinances regarding such asbestos containing materials.
- 1.3.2. If Contractor encounters materials believed to contain asbestos containing materials, cease work at such locations and obtain direction from the Owner.

1.4. LEAD BASED PAINT CONTAINING MATERIALS

- 1.4.1. Contractor is specifically notified that certain existing materials may be coated with paints and coatings containing lead, and such materials may be encountered during the course of this work. Contractor shall comply with all applicable laws and ordinances regarding lead based coatings. The Owner's consultant has prepared an evaluation of such existing materials, and a report regarding this evaluation is available. Reference Spec. 13280.

1.5. PCB CONTAINING COMPONENTS

- 1.5.1. Work under this contract requires removal of existing oil insulated electrical switches. It is the Owners understanding that such switches do not contain PCB products.
- 1.5.2. Prior to removal of such components, Contractor shall take samples and deliver to an approved testing agency to determine the presence if any, of PCB containing materials. Contractor shall comply with all licensing and safety regulations concerning PCB containing materials in obtaining samples for testing.

- 1.5.3. Cost of sample and testing shall be included in the Contract amount and at no further cost to the Owner.
- 1.5.4. Contractor shall provide test results to Owner. If testing indicates presence of PCB containing materials, Contractor shall obtain dispose of as required

PART 2 - PRODUCTS

1.6. PRODUCTS FOR PATCHING AND EXTENDING WORK

- 1.6.1. General:
 - 1.6.1.1. See also Section 01 73 29 Cutting and Patching
 - 1.6.1.2. Unless noted otherwise, provide products matching existing finish, color, dimension, and assembly.
 - 1.6.1.3. All products shall be new, unless specifically noted otherwise.
 - 1.6.1.4. Provide asbestos-free materials.
 - 1.6.1.5. Maintain all fire resistance ratings of existing assemblies and materials.
 - 1.6.1.6. Maintain water and weather tight characteristics of assemblies and materials.
- 1.6.2. Comply with requirements as specified in applicable specification sections for materials used in repairing and extending existing work.

PART 3 - EXECUTION

1.7. SURFACE CONDITIONS

- 1.7.1. Inspection
 - 1.7.1.1. Prior to work of this section, carefully inspect previously installed work. Verify all such work is complete to the point where this installation may properly commence.
 - 1.7.1.2. Verify that work of this section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards.
 - 1.7.1.3. In the event of discrepancy, immediately notify the Project Manager.
 - 1.7.1.4. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

1.8. PREPARATION

- 1.8.1. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

- 1.8.2. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work or as directed by Project Manager.
- 1.8.3. Remove debris and abandoned items from area and from concealed spaces.
- 1.8.4. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
- 1.8.5. If required, protect existing fire alarm sensors and wiring in ceilings and walls from damage.
 - 1.8.5.1. Alert Owner's alarm supervision service prior to work which requires moving or adjusting wiring or sensors
 - 1.8.5.2. Alert service each day prior to work to avoid response to false alarm and advise service each day at end of work to reinstate response to alarms

1.9. INSTALLATION

- 1.9.1. Coordinate work of alterations and renovations to expedite completion and to accommodate Owner occupancy.
- 1.9.2. Complete work in all areas in all respects, including maintaining operational mechanical and electrical systems.
- 1.9.3. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to specified condition.
- 1.9.4. Refinish visible existing surfaces to remain, located in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- 1.9.5. During the course of the work, advise Project Manager of all discovered deficiencies, damage and degradation in existing structure, finishes, and all plumbing, heating, ventilation, air conditioning, and electrical systems.
- 1.9.6. Install Products as specified in individual Sections or as indicated.

1.10. TRANSITIONS

- 1.10.1. Where new Work abuts or aligns with existing, provide a smooth and even transition. Patched Work shall match existing adjacent Work in texture and appearance.
- 1.10.2. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division as approved by Project Manager.

1.11. ADJUSTMENTS

- 1.11.1. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads by use of specified materials and as approved by Project Manager.
- 1.11.2. Where a change of plane of 1/4 inch or more occurs, request instructions from Project Manager.
- 1.11.3. Where permitted by code criteria for rated doors, trim existing doors as necessary to clear new floor finish. Comply with code and door listing requirements for fire rated doors. Refinish doors and trim after trimming.

1.12. REPAIR OF DAMAGED SURFACES

- 1.12.1. Patch or replace portions of existing surfaces which are currently damaged, lifted, discolored, or showing other imperfections, including those damaged by performance of the Work.
- 1.12.2. Repair substrate prior to patching finish.

1.13. FINISHES

- 1.13.1. Finish surfaces as specified in individual Product Sections or as indicated.
- 1.13.2. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections in all directions.

END OF SECTION 01 35 17

SECTION 01 40 05 – CONTRACTOR SAFETY

1.01 GENERAL

A. HEALTH AND SAFETY POLICY

1. The policy of the District is to promote safety at a level to minimize personal injury and potential property damage.
2. Employees of Contractor working on this project are required to meet or exceed all established and recognized codes and standards for safety and protection of personnel and property. District will require the General Contractor and each Subcontractor to include in their safety programs a 100% tie off policy for all work over 6’.
3. The safety guidelines included here are made available as an extension of the safety clause in your Contract General Conditions.
4. These guidelines are not intended to be complete in every detail, but are merely of a general nature. The contractors are in no way relieved of their responsibilities for safety of persons and property, and compliance with all statutes, rules, regulations and orders applicable to the conduct of the work.
5. The possession, use of and/or sale of any alcoholic beverage or illegal controlled drug substance will not be permitted on or immediately adjacent to the job site by any contractor, contractor employee, subcontractor employer or associate.
6. The abuse of prescribed medication will not be permitted on or immediately adjacent to the job site by any contractor, contractor employee, subcontractor employee or associate.
7. This Contractor, and subcontractors, share the responsibility of monitoring and enforcing, as necessary, A.5 and A.6 above. Any known, (or with due cause believed to be), violator of A.5 or A.6 shall be immediately reported to the Project Manager.
8. The District reserves the right to take corrective action, as deemed in the best interest of the Project and the District, for violation of any health or safety standard. This corrective action may include, but is not limited to; removal (from the job site) any unsafe tools/equipment, temporary work stoppage for any unhealthy or unsafe condition, immediate removal (from the job site) any person that is unwilling or incapable of conducting themselves in a manner that promotes a healthy and safe working atmosphere. Any person found to be repeatedly in violation of health and/or safety standards will be permanently removed for the site.

B. RESPONSIBILITIES

1. The District demands that Contractors perform in a reasonable and safe manner.
2. The contractors working on this project have the ultimate and total responsibility to conduct a sound accident control program, as it pertains to their work and their employees, as well as to ensure safe working conditions for employees of other contractors.
3. The Contractor and their Subcontractors will ensure employees cooperate with and coordinate safety matters to form a joint safety effort.
4. Employees who have been, or will be exposed to excessive (measured against applicable standards) levels of toxic materials or harmful physical agents shall be notified by the General Contractor.

Notice of corrective action being taken shall be provided to the employees. Accurate records must be kept of all exposures which are required to be monitored under the State and Federal Codes.

5. In the event of a defense by the Contractor against unsafe independent employee actions, the Appeals Board requires that you must show evidence of the following:
 - a. That the employee was experienced in the job being performed;
 - b. That you as the employer have a well devised safety program which includes training employees in safety matters relating to their individual job assignments;
 - c. That you effectively enforce your safety program;
 - d. That you have and enforce a policy of sanctions against employees who violate your safety program; and
 - e. That the employee caused a safety infraction which he or she knew was in violation of your safety requirement.
6. Dedicated full time safety officer to be assigned to the project if more than 50 people on site.

C. SAFETY ACTIVITIES

1. General Contractor to provide a copy of their company IIPP and a copy of the site specific IIPP which will include local hospital location, and any site specific Job Hazard Analysis required.
2. General Contractor superintendent will have a minimum 10 hour OSHA safety certification.
3. General Contractor safety officer shall have a minimum of 30 hour OSHA training and will visit the site a minimum of once a week and provide a report on the site safety.
4. General Contractor and their Subcontractors will conduct or initiate and submit on a weekly basis:
 - a. Safety program as required by current State of California requirements.
 - b. Weekly "tool box" safety meetings between their supervisors, foremen, employees, and subcontractors working on the project; and
 - c. Daily and Weekly safety inspections of your work area and those areas of work under your responsibility or shared responsibility as well as taking any other necessary safety precautions.

D. REPORTS

1. Submit all preliminary, weekly, periodic and special reports to the Project Manager. The Contractor is in no way relieved of the requirements for submission of reports to any agency or authority.
 - a. All reports listing deficiencies, accidents, or injuries shall show corrective action taken.
 - b. A weekly status and summary report of each "tool box" meeting held and items discussed. Each report shall also contain attendance names, signatures and company affiliation.
 - c. A weekly status report of inspection results. The attached status forms are for your convenience only.
 - d. A continuing list of deficiencies found, date identified responsible party, corrective action and date corrected.
 - e. Accident reports and injury forms. Submit a copy of one of the following to the Project Manager for each case:
 - 1.) California Division of Labor Statistics and Research Form 5020 (latest rev.), or;
 - 2.) Federal OSHA Form 101, or;
 - 3.) Insurance Company form similar to 1 or 2 above.
 - f. A copy of CAL/OSHA Form 200 "Log and Summary of Occupational Injuries and Illness".
2. Special Reports
 - a. Notify the Project Manager immediately of any accident involving injury to personnel or property; and complete written reports within 24 hours of a death or injury.
 - b. Copies of all toxic or harmful agent reports (See paragraph B.4.)
3. Governmental Reports
 - a. Notification of governmental authorities is the responsibility of the General Contractor.

E. SAFETY DEFICIENCY CORRECTION

1. All safety deficiencies will be corrected by the General Contractor in accordance with the following priorities.
 - a. Immediate correction of items with any probability of major or minor injury to people
 - b. Correction immediately of any accident probability which could involve people and/or equipment.
 - c. Correction within one day (or sooner) of potential injury or damage to property.

F. OUTSIDE SAFETY INSPECTIONS

1. Unannounced inspections by city, state or federal safety agencies or insurance companies may occur.
 - a. General Contractor is to escort representatives of these agencies or companies directly to the Project Manager and assist him as required or directed.
 - b. If the Project Manager is not available, the General Contractor's foreman or representative shall accompany the inspector on the inspection.

G. INVESTIGATING

1. All injuries are to be investigated by the General Contractor and reported.
2. The Project Manager shall be notified prior to proceeding with an investigation.

H. SAFETY STANDARDS AND CODE

1. Provide job supervision with applicable safety code publications and ensure they are familiar with the contents.
2. Occupation Safety and Health Administration Standards (latest applicable edition) on the designated applicable safety standards.
3. In States with OSHA approved plans, state codes will take precedence unless federal standards are more stringent, in which case federal standards shall apply.
4. On General Services Administration (GSA) projects, applicable sections of the GSA Manual Accident & Fire Prevention on Construction and Alteration Work will apply in addition to all other codes and standards.
5. All code and standard conflicts will be resolved by applying the most restrictive code and/or standard.
6. Suggested references for trade contractors are:
 - a. Safety & Health Regulation for Construction, U.S. Department of Labor, OSHA, Volume 37, No. 243.
 - b. Construction safety orders, State Standard, CAL/OSHA, State of California, latest edition.
 - c. GSA Manual – GSA – PBSP 5900.3.
 - d. U.S. Army Engineering Manual – EM 385-1.
 - e. Accident Prevention, Associated General Contractors.
 - f. A short guide to the California Occupational Safety and Health Act – National Federation Independent Business, 150 West 20th Avenue, San Mateo California 94403.

I. REQUIRED NOTICES: TO BE VISIBLY DISPLAYED

1. Workers' Compensation Insurance Notice.

2. OSHA poster: Safety and Health Protection on the job.
3. State of California Department of Human Resources: Notice to Employees Unemployment Insurance – Disability Insurance.
4. Hard Hat Area Signs.
5. List of ambulances, doctors and hospitals with telephone numbers which can be called during an emergency.
6. Name and title of the safety representative from each trade contractor's organization.
7. Any other safety signs, slogans, etc. that will improve the general awareness of a joint safety program.

J. PERMITS

1. Permits and/or certification from the Division in Industrial Safety are required before contractors may undertake the following kinds of work:
 - a. Construction of trenches or excavations which are 5 feet or more deep, into which a person is required to descent;
 - b. Construction of any building, structure, false work, or scaffolding more than three stories high.
2. The Division of Industrial Safety may investigate or confer with the employer before the start of work. If a pre-job safety conference between the Division of Industrial Safety personnel and the employer is a requirement specified by the Division of Industrial Safety at the time the permit is issued, employees or their representatives are to be included at the conference.
3. Permits must be posted at or near each place of employment requiring a permit. If posting at the actual job site is not possible, the permit must be available for inspection at all times on the site, or, in the case of a mobile unit, at the employer's head office in the area.
4. Additional permits may be required from the Division of Industrial Safety or other applicable governmental agencies. It is the responsibility of each trade contractor to determine, procure, and pay for their own such permits.

SAFETY STATUS FORMS
(See attached Safety Form)

SAFETY STATUS FORMS

This report is to serve as a minimum standard guideline and does not include job or trade specific items or conditions. Said items or conditions should be added by contractor on the last page entitled "COMMENTS AND REMARKS"

#	QUESTION/CHECK LIST COMMENT:	YES	NO	N/A
A.	FIRE PROTECTION AND PREVENTION:			
1	Are all flammable liquid containers clearly identified?			
2	Are all flammable liquid containers UL or FM listed?			
3	Have proper storage practices for flammables been observed?			
4	Have the proper type & adequate number of fire extinguishers been observed at the job site?			
5	Are extinguishers readily accessible and serviced regularly?			
6	Are hydrants clear and accessible for Fire Department personnel?			
B.	ELECTRICAL			
1	Are all switch gear, panels, and devices that are energized marked and/or guarded to prevent accidental contact?			
2	Are lockout devices available and used on all circuits and equipment that could become energized while work is being performed?			
3	Are all temporary circuits properly guarded and grounded?			
4	Are all extension cords in continuous lengths without splices or tape?			
5	Are GFCI's being used? If not, is Assured Equipment Grounding Conductor Program being followed?			
6	If temporary lighting is provided, are bulbs protected against accidental breakage?			
7	Are there a sufficient number of temporary outlets on the job site?			
8	Are there any visual signs of outlet overloading?			
C.	HAZARD COMMUNICATION			
1	Does the Hazard Communication Program include a list of hazardous chemicals?			
2	Does the Hazard Communication Program include container labeling?			
3	Does the Hazard Communication Program include "Material Safety Data Sheets (MSDS)?"			
4	Does the Hazard Communication Program include employee training?			
5	Does the Hazard Communication Program include personal protective equipment (PPE)?			
6	Does the Hazard Communication Program include emergency response procedures, information & phone numbers?			
7	Does the Hazard Communication Program include a list of hazards for non-routine tasks?			
8	Does the Hazard Communication Program include procedures for informing other contractors of hazardous conditions and/or procedures?			
9	Does the Hazard Communication Program include adequate posting of signage & warning labels?			
10	Is a copy of the Hazardous Communication Program at this job site?			

SAFETY STATUS FORMS

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#	QUESTION/CHECK LIST COMMENT:	YES	NO	N/A
D.	EXCAVATION/TRENCHING			
1	Have utility companies been notified of proposed excavation work (one-call system)?			
2	Are overhead utility lines noted and precautions taken to avoid contact by cranes, backhoes, or other heavy equipment?			
3	Is the excavation inspected daily or more frequently when there is a change in weather or environment that could affect the soil?			
4	If needed, are barricade, stop logs, etc. properly located?			
5	Are excavations five (5) feet or deeper correctly sloped, benched, shored, or is a trench box (shield) used?			
6	Is a ladder or other means of exit (egress) provided in trenches or excavations four (4) feet or deeper?			
7	When ladders are used, do they extend three (3) feet above the surface and are they secured?			
8	Are shoring and shielding systems inspected daily by a competent person?			
E.	SCAFFOLDING			
1	Are scaffold components visibly free of any physical damage (no bent supports or cross bracing)?			
2	Is scaffolding properly erected with all pins and braces in place and locked?			
3	Are wheels locked when scaffold is in use?			
4	Is scaffold erected on a firm and substantial surface?			
5	Is planking of a scaffold grade?			
6	Is planking in good condition and properly installed?			
7	Are toe boards and guardrails in place on scaffold work platform?			
8	Are workers on scaffolding protected from falling objects if overhead hazards exist?			
9	Is a ladder provided for access to scaffold work platform?			
F.	BARRICADING			
1	Are floor openings planked and secured or barricaded?			
2	Is a flag person provided to direct traffic when needed?			
3	Are open excavation, road drop offs, manholes, & uneven surfaces barricaded?			
G.	LADDERS			
1	Is the proper ladder for the job being used?			
2	Are ladders in good condition (no missing or broken rungs, etc.)?			
3	Is there a need for and/or are there safety shoes/cleats on the bottom of ladders?			
4	Are non-conductive ladders available for use around live wiring?			
5	Are ladders tied-off at top or otherwise secured?			
6	Do side rails extend 36 inches above the top of the landing?			
7	Are step ladders fully opened when in use?			

SAFETY STATUS FORMS

This report is to serve as a minimum standard guideline and does not include job or trade specific items or conditions. Said items or conditions should be added by contractor on the last page entitled "COMMENTS AND REMARKS"

#	QUESTION/CHECK LIST COMMENT:	YES	NO	N/A
H.	PERSONAL PROTECTIVE EQUIPMENT			
1	Is hearing protection available for personnel that may be exposed to noisy conditions?			
2	Is respiratory protection available to personnel and is it being used when conditions require same?			
3	Are safety harnesses, belts, lifelines, and lanyards available and being used?			
4	Are personnel using gloves when handling sharp or rough material?			
I.	MEDICAL			
1	Are first-aid kits available and properly stocked?			
2	Are all emergency phone numbers posted?			
3	Are all employees aware of the address of the site or capable of giving proper directions to emergency personnel?			
4	Is anyone trained in first-aid CPR?			
J.	TOOLS: (Hand & Power)			
1	Are tools free of any obvious physical damage?			
2	Are tools inspected for frayed and damaged cords?			
3	Are tools and cords properly grounded and are ground pins in good condition?			
4	Are the handles on all tools in good condition (not bent, splintered, or broken)?			
5	Are all hoses on air or hydraulic tools in good condition?			
6	Are all shields and guards in place on the tools and in good condition?			
7	Has each tool and/or equipment operator received proper operating and safety instruction for each tool and/or piece of equipment which he or she is using?			
8	Has each user of a power actuated tool been properly certified and are their certifications current?			
K.	WELDING AND CUTTING			
1	Are welding goggles, helmet, gloves and clothing being used by each welder?			
2	Inspection for fire hazards after welding stops			
3	Are gas cylinders, hoses, regulators, torches, torch tips, and welding carts in good working order and are same being properly secured?			
L.	HOIST, CRANES AND DERRICKS			
1	Are cables and sheaves checked?			
2	Are slings hooks, eyelets and chokes inspected?			
3	Are load capacities posted in cab?			
4	Are power lines at a safe distance?			
5	Are crane inspection logs with crane?			

SECTION 01 45 00 – QUALITY CONTROL

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Quality assurance and control of installation.
- 1.1.2. Contractor responsibility for structural tests and special inspections.

1.2. QUALITY ASSURANCE/CONTROL OF INSTALLATION

- 1.2.1. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- 1.2.2. Comply fully with manufacturers' instructions, including each step in sequence. Should manufacturers' instructions conflict with Contract Documents, request clarification from Project Manager before proceeding.
- 1.2.3. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- 1.2.4. The Owner will retain a project inspector to inspect all work performed by Contractor in compliance with Section 4-333 and 4-342, Part 1, Title 24, CCR.
 - 1.2.4.1. The Owner will retain special inspectors, minimum Class 1, for those portions of the work as shown on the drawings and specified in the respective sections in compliance with Section 4-333, Part 1, Title 24, CCR.
- 1.2.5. Perform work by persons qualified to produce workmanship of specified quality.
- 1.2.6. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.3. CONTRACTOR RESPONSIBILITY

- 1.3.1. Each Contractor responsible for the construction of a main wind- or seismic-force-resisting system, designated seismic system or a wind- or seismic-resisting-component listed in the statement of special inspections shall submit a statement of responsibility to the building official and the Owner prior to commencement of work on the system or component. The Contractor's statement of responsibility shall contain the following:
 - 1.3.1.1. Acknowledgment of awareness of the special requirements contained in the statement of special inspections;
 - 1.3.1.2. Acknowledgment that control will be exercised to obtain conformance with the construction documents approved by the building official;

- 1.3.1.3. Procedures for exercising control within the Contractor's organization, the method and frequency of reporting and the distribution of the reports;
- 1.3.1.4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

1.4. FIELD SAMPLES

- 1.4.1. Install field samples or mock-ups for review at the site as required by individual specifications Sections.
- 1.4.2. Acceptable samples represent a quality level for the Work.
- 1.4.3. Remove field sample or mock-up when specified in individual Sections.

1.5. MANUFACTURERS' FIELD SERVICES AND REPORTS

- 1.5.1. When specified in individual specification Sections, require material or Product suppliers or manufacturers provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start - up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- 1.5.2. Report to the Project Manager observations, site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- 1.5.3. Submit report in duplicate within 5 days of observation.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 45 00

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- a. Products
- b. Transportation and handling
- c. Storage and protection

1.1.1 PRODUCTS

- 1.1.2 Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment that may have been used for the preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.

Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.

Provide interchangeable components of the same manufacturer, for similar components.

1.1.3 TRANSPORTATION AND HANDLING

- a. Transport and handle Products in accordance with manufacturer's instructions.
- b. Promptly inspect shipments to assure that Products comply with requirements, quantities are correct, and Products are undamaged.
- c. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement or damage.

1.1.4 STORAGE AND PROTECTIONS

1. Store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight, climate controlled enclosures.
2. Where approved by Project Manager and permitted by General Conditions, provide off-site storage and protection in an insured warehouse when site does not permit on-site storage or protection.
3. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.

PART 2 – PRODUCTS

(NOT USED)

PART 3 – EXECUTION

(NOT USED)

END OF SECTION 01 60 00

SECTION 01 73 29 – CUTTING AND PATCHING

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Requirements and limitations for cutting and patching of Work.

1.2. QUALITY ASSURANCE

- 1.2.1. Use only personnel who are thoroughly trained and experienced in the skills required and have installed similar applications of the specified products within one year prior to beginning work of this section.
- 1.2.2. Use only staff that is completely familiar with the requirements of this work.

1.3. SUBMITTALS

- 1.3.1. Submit written request and obtain, review, and approved by the Project Manager in advance of cutting or alteration of the following,:
 - 1.3.1.1. Structural integrity of any element of Project.
 - 1.3.1.2. Integrity of moisture - resistant element.
 - 1.3.1.3. Efficiency, maintenance, or safety of any operational element.
 - 1.3.1.4. Visual qualities of sight exposed elements.
 - 1.3.1.5. Work of others.
 - 1.3.1.6. Any location or member.
- 1.3.2. Include in request:
 - 1.3.2.1. Identification of Project.
 - 1.3.2.2. Location and description of affected work.
 - 1.3.2.3. Necessity for cutting or alteration.
 - 1.3.2.4. Description of proposed work, and Products to be used.
 - 1.3.2.5. Alternatives to cutting and patching.
 - 1.3.2.6. Effect on work of others.
 - 1.3.2.7. Date and time work will be executed.

PART 2 - PRODUCTS

1.4. PRODUCTS FOR PATCHING AND EXTENDING WORK

1.4.1. General:

1.4.1.1. Unless noted otherwise, provide products matching existing finish, color, dimension, and assembly.

1.4.1.2. All products shall be new, unless specifically noted otherwise.

1.4.1.3. Provide asbestos-free materials.

1.4.1.4. Maintain all fire resistance ratings of existing assemblies and materials.

1.4.1.5. Maintain water and weather tight characteristics of assemblies and materials.

1.4.2. Comply with requirements as specified in applicable specification sections for materials used in repairing and extending existing work.

1.4.3. Primary Products: Those required for original installation.

1.4.4. Subfloor Filler: Portland cement based, Ardex or equal.

1.4.5. Portland Cement Plaster: Portland cement plaster with wire mesh reinforcing and casing/corner beads per the Plaster and Drywall System Manual of the Information Bureau of Western Lath/Plaster and Drywall Industry Association.

1.4.6. Product Substitution: Submit request for substitution under provisions of Section 01 25 00 for all proposed change in materials.

PART 3 - EXECUTION

1.5. SURFACE CONDITIONS

1.5.1. Inspection

1.5.1.1. Prior to work of this section, carefully inspect previously installed work. Verify all such work is complete to the point where this installation may properly commence.

1.5.1.2. Verify that work of this section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards.

1.5.1.3. In the event of discrepancy, immediately notify the Project Manager.

1.5.1.4. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

1.5.2. During the course of the work, advise Project Manager of all discovered deficiencies, damage and degradation in existing structure, including finishes, and all plumbing, heating, ventilation, air conditioning, and electrical systems.

- 1.5.3. All cost caused by defective or ill-timed work shall be borne by General Contractor. General Contractor shall not endanger any work by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other Contractor except with consent of the Project Manager.

1.6. PREPARATION

- 1.6.1. Provide temporary supports as required to ensure structural integrity of the Work, including scaffolding, shoring, and underpinning. Provide devices and methods to protect other portions of Project from damage.

- 1.6.2. Maintain excavations free of water.

- 1.6.3. Utility and Service Identification and Location

- 1.6.3.1. Locate and identify existing utility, service and irrigation system components affected by work of this contract. Review existing record drawings, conduct site investigations, contact Underground Service Alert and other qualified on-site cable/pipe/line locator services, and implement all other means necessary to define the location of underground systems.

- 1.6.3.2. Prior to beginning any cutting or patching affecting identified utilities, properly disconnect all water, gas and electrical power supply at appropriate disconnect locations. Obtain all necessary releases and approvals from serving utility companies.

- 1.6.3.3. Prior to disconnect, through the Project Manager, obtain Owners approval that such system does not impact facilities or systems beyond the extent of this contract.

- 1.6.3.4. Mark location of disconnected systems. Identify and indicate stub-out locations on Project Record Documents.

- 1.6.4. Coordinate the time and duration of all system disconnects with Project Manager.

1.7. CUTTING AND PATCHING

- 1.7.1. Contractor shall provide all cutting, including excavation and fill, fitting, or patching of Work as required to make its several parts come together properly and fit to receive or be received by work of other Contractors shown upon, or reasonably implied by the contract documents and Specifications for the completed structure, and as the Project Manager may direct.

- 1.7.2. Fit Products together, to integrate with other work.

- 1.7.3. Uncover work to install ill timed work.

- 1.7.4. Remove and replace defective or non-conforming work.

- 1.7.5. Remove samples of installed work for testing when requested.

- 1.7.6. Provide openings in the Work for penetration of mechanical and electrical work.

- 1.7.7. No structural member shall be cut, notched, bored or otherwise altered unless specifically approved.

1.8. PERFORMANCE

- 1.8.1. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.
- 1.8.2. Employ original installer to perform cutting and patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- 1.8.3. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- 1.8.4. Restore work with new Products in accordance with requirements of Contract Documents.
- 1.8.5. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- 1.8.6. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 - Firestopping, to full thickness of the penetrated element.
- 1.8.7. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

END OF SECTION 01 73 29

SECTION 01 75 00 – STARTING AND ADJUSTING

PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Starting systems.
- 1.1.2. Demonstration and instructions.
- 1.1.3. Testing, adjusting and balancing.

1.2. STARTING SYSTEMS

- 1.2.1. Coordinate schedule for start-up of various equipment and systems.
- 1.2.2. Notify Inspector and Project Manager 48 hours prior to start-up of each item.
- 1.2.3. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence or other conditions which may cause damage.
- 1.2.4. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- 1.2.5. Verify wiring and support components for equipment are complete and tested.
- 1.2.6. Execute start-up under supervision of responsible manufacturer's representative and/or Contractor personnel in accordance with manufacturers' instructions.
- 1.2.7. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, and check equipment or system installation prior to start-up and to supervise placing equipment or system operation.
- 1.2.8. Submit a written report to the Project Manager that equipment or system has been properly installed and is functioning correctly.
- 1.2.9. Provide advance notice to Project Manager and Inspector of Record regarding all coordination for utility and service systems hook-ups.

1.3. DEMONSTRATION AND INSTRUCTIONS

- 1.3.1. Demonstrate operation and maintenance of Products to Owner's personnel within seven (7) calendar days of Substantial Completion, prior to occupancy.
- 1.3.2. Demonstrate Project equipment by a qualified manufacturers' representative who is knowledgeable about the Project.
- 1.3.3. For equipment or systems requiring seasonal operation, perform demonstration for other seasons within six months.

- 1.3.4. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- 1.3.5. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance and shutdown of each item of equipment at agreed-upon times at equipment location.
- 1.3.6. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- 1.3.7. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 75 00

SECTION 01 77 19 – CLOSEOUT REQUIREMENTS

1. PART 1 - GENERAL

1.1. SECTION INCLUDES

- 1.1.1. Closeout Procedures.
- 1.1.2. Final Cleaning.
- 1.1.3. Adjusting.
- 1.1.4. Project Record Documents.
- 1.1.5. Operation and Maintenance Data.
- 1.1.6. Warranties.
- 1.1.7. Spare Parts, Turn-Over and Maintenance Materials.
- 1.1.8. Training

1.2. SUBSTANTIAL COMPLETION AND PUNCH LIST PROCEDURES

- 1.2.1. See General Conditions Article 9.9.1 for additional closeout procedures. General Conditions shall supercede any language in this section.
- 1.2.2. At such time as each Contractor believes project is substantially complete, notify Project Manager and request Punch List Inspection.
- 1.2.3. Project Manager and District's consultants will conduct an inspection in order to determine acceptance of work and identify items remaining to complete. The Project Manager will prepare a Punch List of such items and transmit to Contractor.
- 1.2.4. If Project Manager determines that punch list items remaining are sufficiently minor, and that Owner can occupy work and use it for its intended purpose, then Project Manager will prepare a Notice of Substantial Completion for Owner's signature.
 - 1.2.4.1. If work is not substantially complete, Contractor shall continue construction until such time as project status justifies subsequent inspection. Project Manager and District's consultant costs incurred in such subsequent inspections will be paid by Contractor by Owner-Contractor contract adjustment.
 - 1.2.4.2. Contractor shall complete all items on Punch List within 30 days, or as stated on Notice of Substantial Completion.

- 1.2.5. Provide submittals to Project Manager as required by governing or other authorities, including all required forms and approvals.
- 1.2.6. ***Contractor to provide a progress cleaning of the entire building once substantial completion is achieved.***

1.3. FINAL COMPLETION PROCEDURES

- 1.3.1. At such time as Contractor believes project is complete and following completion of Punch List items, notify Project Manager and request Final Inspection
 - 1.3.1.1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Project Manager's Final inspection.
 - 1.3.1.2. Upon receipt of request for final inspection, Project Manager will perform a Final Inspection and recommend actions as defined by the General Conditions.
 - 1.3.1.3. If Project Manager determine work is acceptable under the Contract Documents, Contractor shall submit Final Application for Payment and close out documents.
- 1.3.2. Final Application for Payment -
 - 1.3.2.1.1. See General Conditions Article 9

1.4. FINAL CLEANING

- 1.4.1. Contactor shall conduct all final cleaning required to comply with requirements of this Section prior to final inspection.
- 1.4.2. Use cleaning materials which do not create hazards to health or property and which will not damage surfaces. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.
- 1.4.3. Employ experienced workers or professional cleaners for final cleaning. Comply with instructions of manufacturer for surface being cleaned.
- 1.4.4. Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner
- 1.4.5. Contractor shall clean all completed interior work, including but not necessarily limited to, surfaces exposed to view in final construction, all cabinet/casework interiors and surfaces, and all equipment and fixtures.

- 1.4.6. Clean all completed building exterior surfaces and site work, including but not necessarily limited to, surfaces exposed to view in final construction, all roof surfaces, all site paving surfaces, and all equipment and fixtures.
 - 1.4.6.1. Remove temporary labels, stains and foreign substances from exterior surfaces.
 - 1.4.6.2. Polish exterior signage components and similar glossy surfaces.
 - 1.4.6.3. Remove dirt and dust from all exterior surfaces by approved means. Clean all sealant joints and similar applications.
 - 1.4.6.4. Remove debris, construction products, fasteners, and trash from all roof surfaces.
 - 1.4.6.5. Rake grounds that are neither paved nor planted to a smooth even-textured surface.
 - 1.4.6.6. Clean all paving surfaces as necessary to remove construction dust and dirt, including debris from joints using approved methods. Remove all construction stains by approved means. Remove asphalt and seal coat splatter from curb faces.
- 1.4.7. Remove waste and surplus materials, rubbish, and construction facilities from the site and legally dispose of.
- 1.4.8. **If there is a delay to the schedule due to the contractor, and the contractor does not achieve final completion prior to the District occupying the building, the contractor is responsible for providing the final cleaning just prior to the occupancy.**
- 1.5. ADJUSTING
 - 1.5.1. Adjust operating Products and equipment to ensure smooth and unhindered operation.
 - 1.5.2. Contractor to adjust the door hardware prior to punch list, again before Notice of Completion, and again at the 11 month warranty walk review.
- 1.6. RECORD DOCUMENTS: RECORD SET
 - 1.6.1. Upon completion of the Work, update record set supplied by Project Manager. Complete update of record set is required for submittal of final payment. Project Manager shall be sole judge of completeness of record set.
 - 1.6.1.1. Update record set at regular intervals as directed by Project Manager.
 - 1.6.2. Provide two (1) full size set of as-builts for the project with electronic (PDF) version for the District/Campus.
 - 1.6.3. Provide a separate copy of the Field Superintendent's as-builts, which were used to create the office set.

1.7. OPERATION AND MAINTENANCE DATA

- 1.7.1. Submit four sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, three ring binders with durable plastic covers.
- 1.7.2. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- 1.7.3. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- 1.7.4. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified type on 24-pound white paper.
- 1.7.5. Part 1: Directory, listing names, addresses, and telephone numbers of Engineers, Contractor, Subcontractors, and major equipment suppliers.
- 1.7.6. Part 2: Operation and maintenance instructions arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - 1.7.6.1. Significant design criteria.
 - 1.7.6.2. List of equipment.
 - 1.7.6.3. Parts list for each component.
 - 1.7.6.4. Operating instructions.
 - 1.7.6.5. Maintenance instructions for equipment and systems.
 - 1.7.6.6. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
- 1.7.7. Part 3: Project documents and certificates, including the following:
 - 1.7.7.1. Shop drawings and product data.
 - 1.7.7.2. Certificates.
 - 1.7.7.3. Photocopies of warranties.
- 1.7.8. Submit one copy of completed volumes in final form 15 days prior to final inspection. This copy will be returned after final inspection, with Project Manager comments. Revise content of documents as required prior to final submittal.
- 1.7.9. Submit final volumes revised, within 15 days after final inspection.

1.8. WARRANTIES

- 1.8.1. Provide duplicate notarized copies.
- 1.8.2. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.
- 1.8.3. Provide Table of Contents and assemble in three ring binders with durable plastic cover.
- 1.8.4. Submit prior to final Application for Payment.
- 1.8.5. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.
- 1.8.6. CONTRACTOR to participate in an 11 month warranty walk prior to warranty period end.
- 1.8.7. WARRANTY CALLS:
 - 1.8.7.1. CONTRACTOR to provide a Warranty log that includes, but limited to the following information: Warranty #, Request Date, and Completion Date.
 - 1.8.7.2. Warranty request form is to have a sign-off line for the Requestor and the Contractor at the time the work is complete.
 - 1.8.7.3. The CONTRACTOR is to coordinate with the District/Campus when they will be on site for warranty work calls.

1.9 TRAINING

- 1.9.1 All training requirements are to include the manufacturer's representative for initial start-up training and an additional day of follow-up training with M&O (Maintenance & Operations) upon their request after use of the system/equipment before the Notice of Completion is filed.
- 1.9.2 M&O shall have a copy of all training manuals (regardless of training) prior to project completion.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION 01 77 19

EXHIBIT D



Division of the

State Architect

CALIFORNIA DEPARTMENT OF GENERAL SERVICES

RECEIVED

FEB 21 2018

Division of the State Architect

San Diego Regional Office

10920 Via Frontera, Suite 300 - San Diego, CA 92127

(858) 674-5400 • Fax (858) 674-5471 • www.dsa.dgs.ca.gov

P2S Engineering, Inc.

P2S Engineering, Inc.

ADDENDUM, CHANGE ORDER, DRAWING, DEFERRED APPROVAL WORKSHEET AND TRANSMITTAL MEMO

SSS 143-1 (Revised 12/06)

File Number: 36-C2

Application: 04-116000

Job SBVC Liberal Arts and Planetarium Fire Alarm Upgrade

Change Order No.	Addendum No.	Deferred Submittal	Clarifications	Field Change Document	Other
	1				
List of Material Received: 02/16/2018 Resubmitted: \$	A. Master Copy				
	B. Copies 1 set fire alarm drawings				
	C. Tracing(s) each		of Sheet(s) Number(s)		
	D. Print(s) each		of Sheet(s) Number(s)		
	E.				
	F.				
List of Material Approved:					
List of Material <input type="checkbox"/> Sent <input type="checkbox"/> Handed <input type="checkbox"/> Faxed	To: <input type="checkbox"/> Architect <input type="checkbox"/> Structural Engineer		Company: P2S Engineering, Inc. 5000 East Spring Street, 8 th Floor Long Beach, CA. 90815-5218		Attention: Aravind Batra
	Item:				
	Copies:				
Remaining Requirements: <input checked="" type="checkbox"/> None	<input type="checkbox"/> Corrections Required <input type="checkbox"/> Change Order Required				
	If Corrections are required, please submit the following:				
	1. Intact marked up check set. 2. This transmittal memo. 3. Two corrected copies of submittal. 4. Calculations and other back-up information. 5. Drawings bearing preliminary approval stamps to avoid re-review whenever possible.				
	Remarks:				
Notes for Clerical Use Only:	<input type="checkbox"/> Please Make File Copy of: _____				
	<input type="checkbox"/> Extend Plans and Specs Approval to Cover: _____				
	<input type="checkbox"/> Revised Plans and Specs. <input type="checkbox"/> Other: _____				
	<input type="checkbox"/> Additional: Plans and Specs Scope Increase: Type of Approval: _____				
	SSS <input checked="" type="checkbox"/> Not Required	FLS <input type="checkbox"/> Not Required	ACS <input checked="" type="checkbox"/> Not Required		
Checked by:	David Shay				
Approved by:	Approved				
Date:	02/16/2018				



SAN BERNARDINO VALLEY COLLEGE
701 Mount Vernon Avenue, San Bernardino, CA 92410

Fire Alarm Upgrades at Planetarium and Liberal Arts

DSA Addendum #1 Submittal
February 7th, 2018

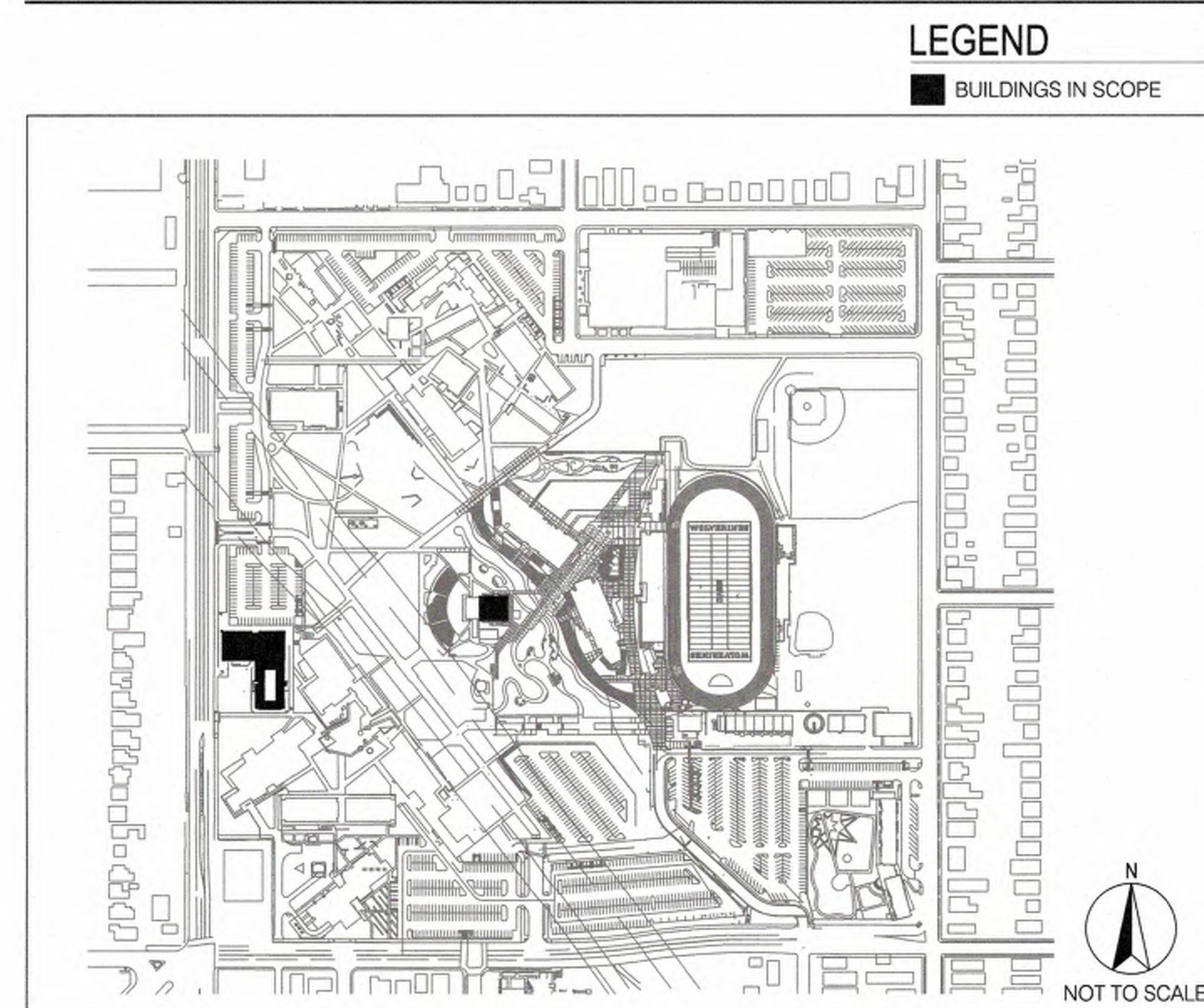


P2S Engineering, Inc
5000 East Spring Street, 8th Floor
Long Beach, CA 90815
562.497.2999

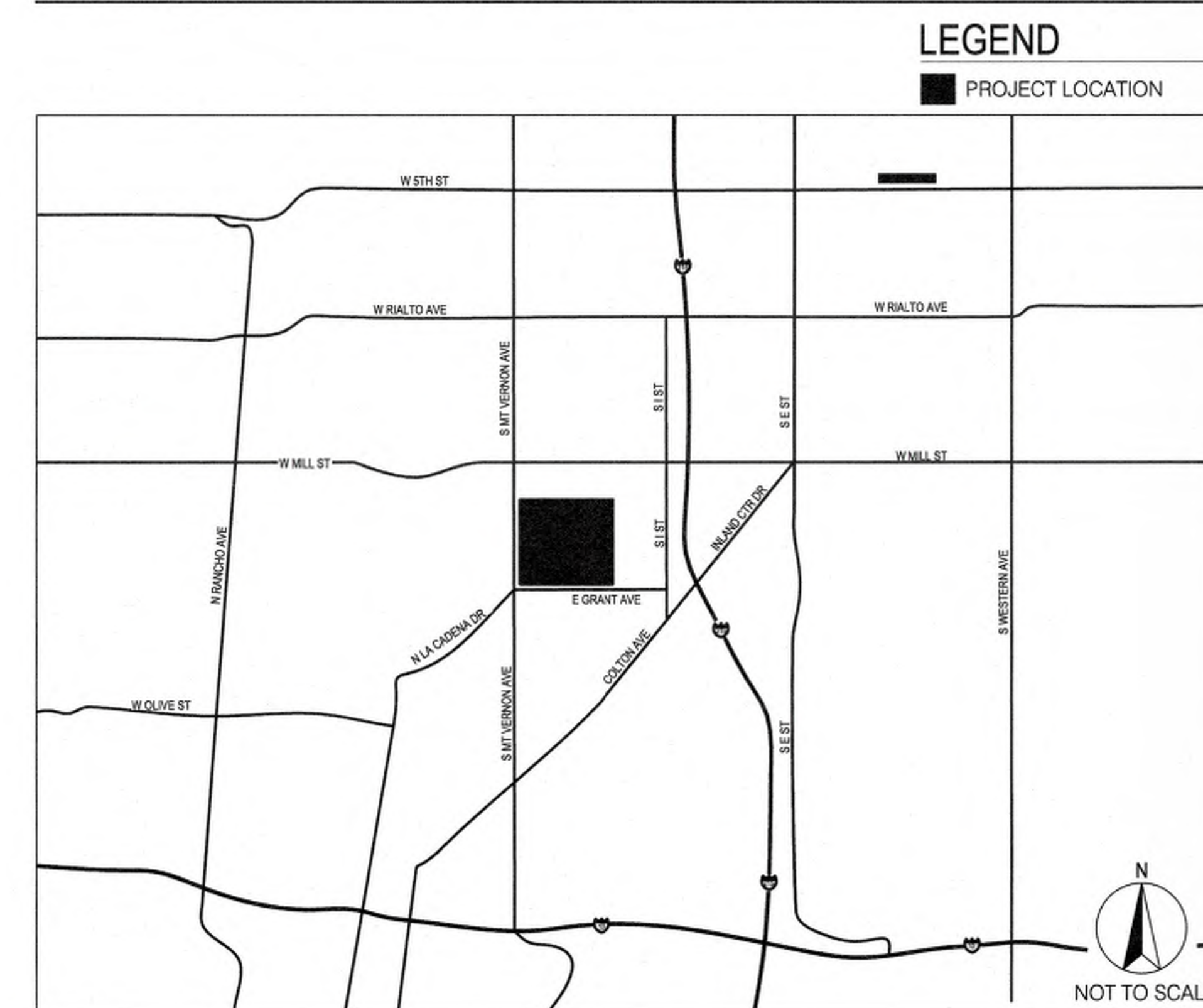


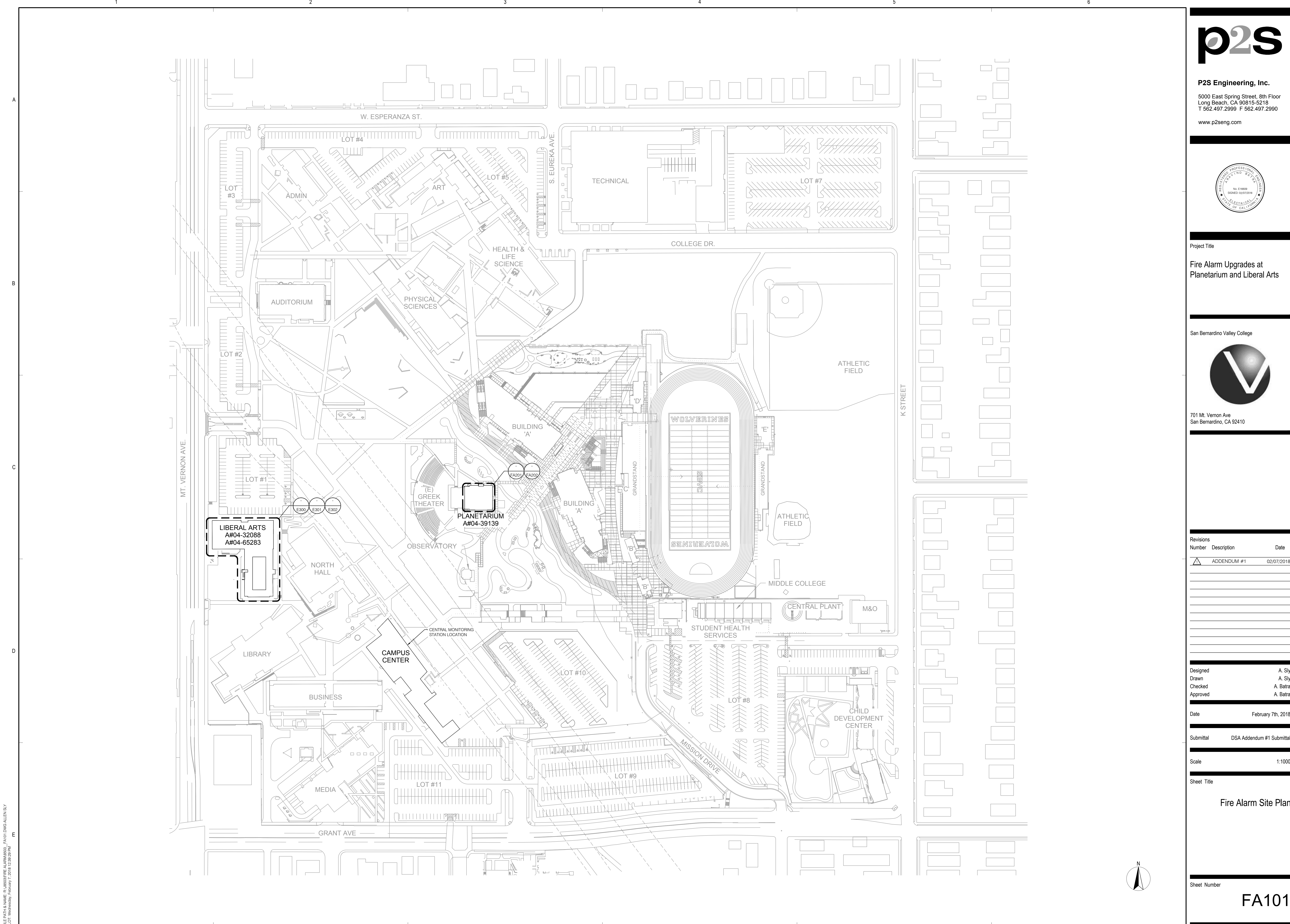
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FEB 16 2018
DSA - SAN DIEGO

CAMPUS MAP



VICINITY MAP



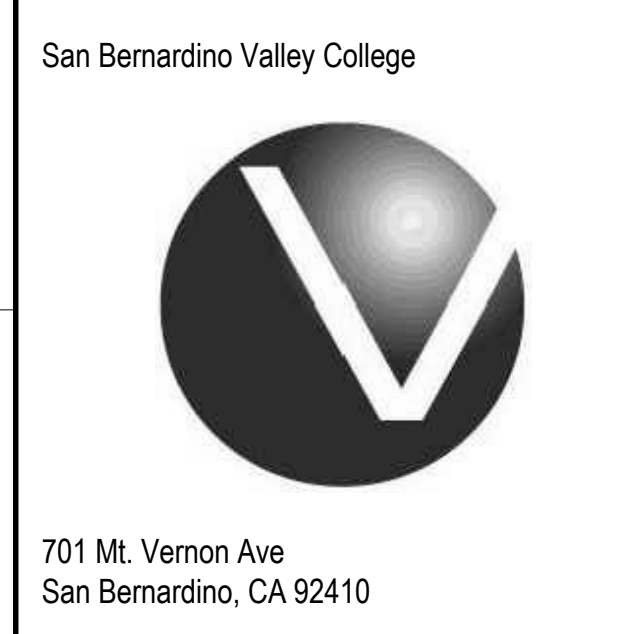


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p2s
P2S Engineering, Inc.
 5000 East Spring Street, 8th Floor
 Long Beach, CA 90815-5218
 T 562.497.2999 F 562.497.2990
 www.p2seng.com



Project Title
**Fire Alarm Upgrades at
 Planetarium and Liberal Arts**



Revisions Number	Description	Date
△	ADDENDUM #1	02/07/2018

Designed: A. Sly
 Drawn: A. Sly
 Checked: A. Batra
 Approved: A. Batra

Date: February 7th, 2018

Submittal: DSA Addendum #1 Submittal

Scale: 1:1000

Sheet Title
Fire Alarm Site Plan

Sheet Number
FA101

BUILDING INFORMATION	
OCCUPANCY CLASSIFICATION	A-3, B
CONSTRUCTION TYPE	TYPE III-1 HR
TOTAL SQUARE FOOTAGE	4,889 SQ FEET
TOTAL NUMBER OF FLOORS	2
TOTAL BUILDING HEIGHT	28 FEET
AUTOMATIC FIRE SPRINKLERS	NONE
OTHER FIRE SUPPRESSION	NO
STORIES	2
REQUIRED SEPARATION	NONE
YEAR OF PERMIT	1976

GENERAL NOTES

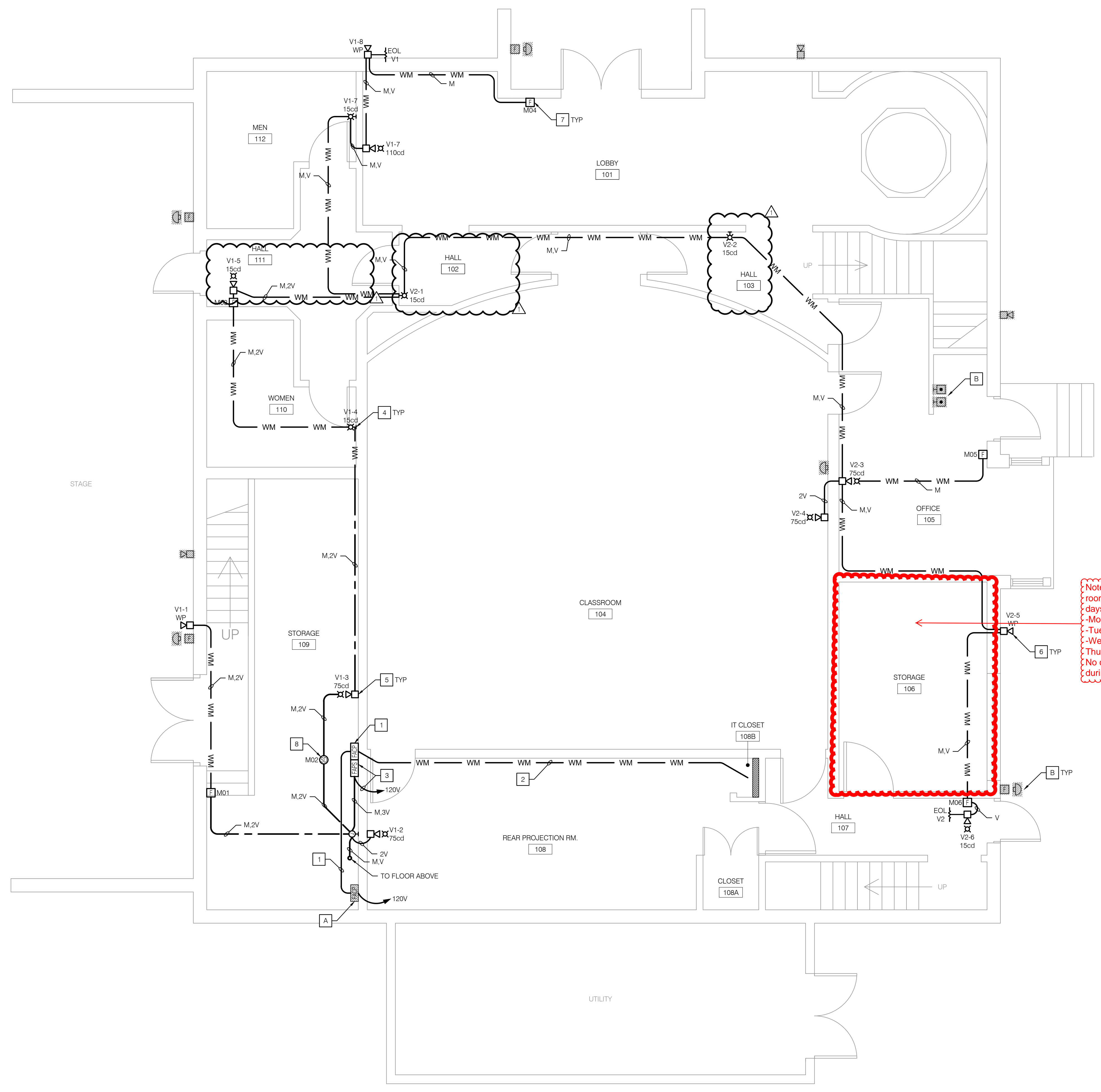
- REFER TO DEVICE SCHEDULE ON SHEET FA001 AND SPECIFICATION SECTION 283100 FOR DETAILS.
- PROVIDE WIREMOLD NON-METALLIC SURFACE MOUNTED RACEWAY IN FINISHED AREAS WHERE CONDUIT CANNOT BE CONCEALED IN EXISTING WALLS.

RENOVATION NOTES

- PROVIDE FIRE ALARM CONTROL PANEL AS SHOWN. EXTEND EXISTING 120V CIRCUIT SERVING EXISTING FACP AND PROVIDE RED LOCK-ON DEVICE ON EXISTING CIRCUIT BREAKER IN EXISTING POWER PANEL.
- PROVIDE TWO PHONE LINES FROM EXISTING TELECOMMUNICATIONS RACK FOR CENTRAL STATION MONITORING. COORDINATE WITH CAMPUS FOR PROVISION OF AVAILABLE LINES.
- PROVIDE REMOTE POWER SUPPLY AS SHOWN FOR NOTIFICATION DEVICES. FEED FROM EXISTING POWER PANEL. PROVIDE DEDICATED 120V, 20A LOCK-ON CIRCUIT BREAKER, COLORED RED.
- PROVIDE STROBE AS SHOWN.
- PROVIDE COMBINATION HORN/STROBE AS SHOWN.
- PROVIDE WEATHERPROOF HORN AS SHOWN.
- PROVIDE ADDRESSABLE MANUAL PULL STATION AS SHOWN.
- PROVIDE ADDRESSABLE SMOKE DETECTOR AS SHOWN.

DEMOLITION NOTES

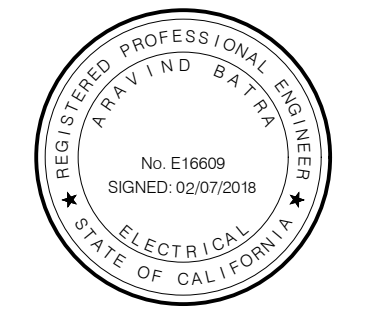
- DISCONNECT AND REMOVE EXISTING FIRE ALARM CONTROL PANEL. PATCH AND PAINT EXPOSED WALL SURFACE TO MATCH EXISTING FINISH.
- DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. PROVIDE COVER PLATE ON EXISTING BOX. PATCH AND PAINT TO MATCH EXISTING FINISH.



Note: Campus needs full access to this room (food storage) during the following days and times:
 - Monday 8:00am - 11:00am
 - Tuesday 2:00 pm - 6:00 pm
 - Wednesday 2:00 pm - 6:00 pm
 - Thursday 8:00 am - 12:00pm
 No contractors can work in this room during these days and times.



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 www.p2seng.com



Project Title
Fire Alarm Upgrades at Planetarium and Liberal Arts



Revisions Number	Description	Date
△	ADDENDUM #1	02/07/2018

Designed: A. Sly
 Drawn: A. Sly
 Checked: A. Batra
 Approved: A. Batra

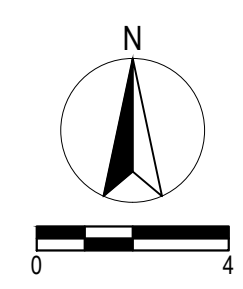
Date: February 7th, 2018

Submittal: DSA Addendum #1 Submittal

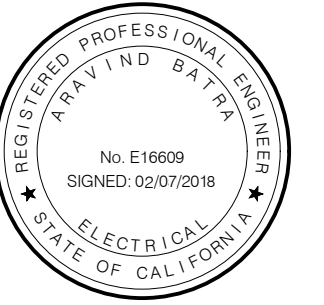
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Sheet Title
Planetarium First Floor Fire Alarm Plan

Sheet Number
FA201



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Project Title

**Fire Alarm Upgrades at
Planetarium and Liberal Arts**

San Bernardino Valley College



701 Mt. Vernon Ave
San Bernardino, CA 92410

Revisions

Number	Description	Date
△	ADDENDUM #1	02/07/2018

Designed	A. Sly
Drawn	A. Sly
Checked	A. Batra
Approved	A. Batra

Date February 7th, 2018

Submittal DSA Addendum #1 Submittal

Scale 1/4" = 1' - 0"

Sheet Title

**Planetarium
Second Floor
Fire Alarm Plan**

Sheet Number

FA202

GENERAL NOTES

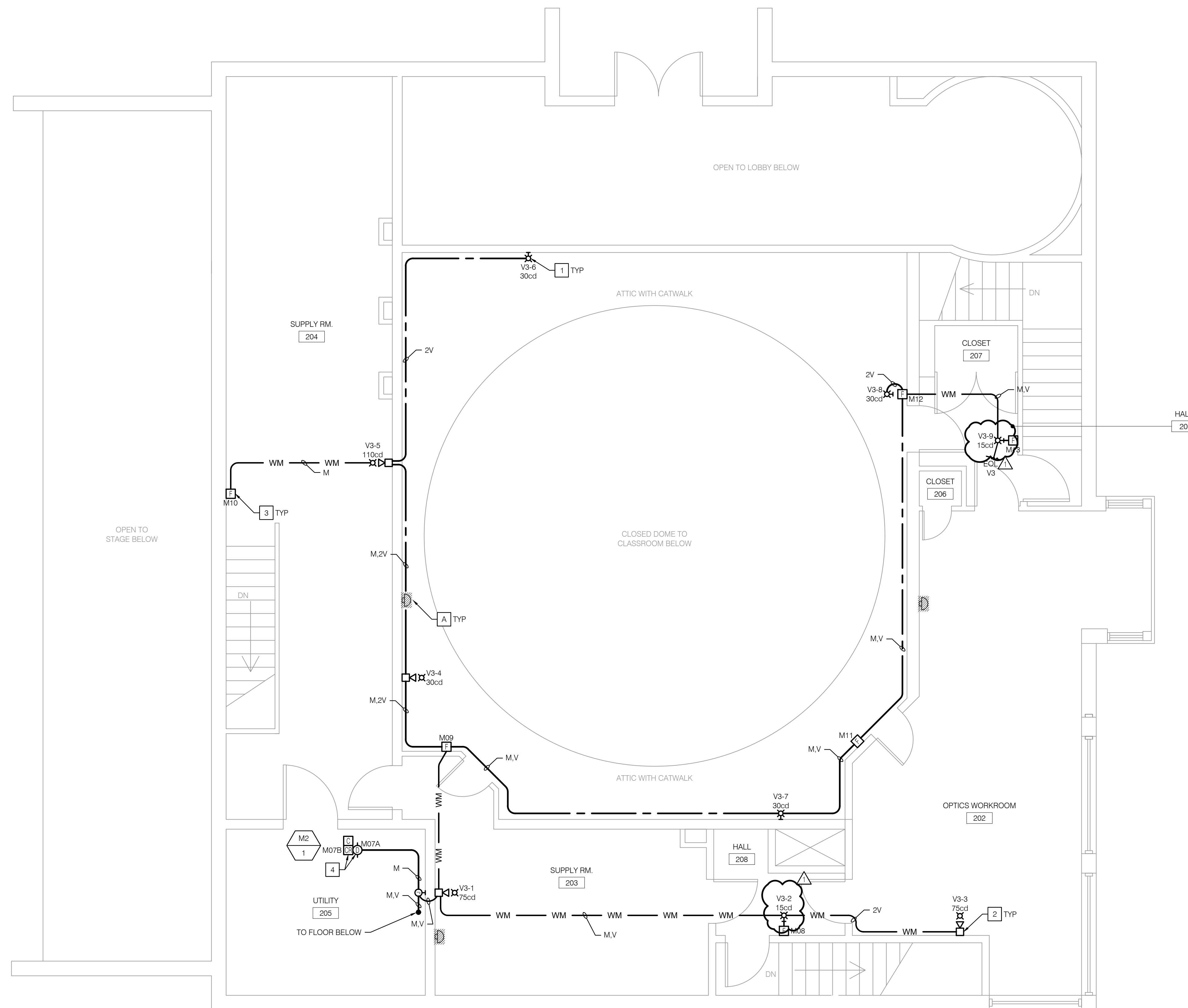
- REFER TO DEVICE SCHEDULE ON SHEET FA001 AND SPECIFICATION SECTION 283100 FOR DETAILS.
- PROVIDE WIREMOLD NON-METALLIC SURFACE MOUNTED RACEWAY IN FINISHED AREAS WHERE CONDUIT CANNOT BE CONCEALED IN EXISTING WALLS.

RENOVATION NOTES

- PROVIDE STROBE STROBE AS SHOWN.
- PROVIDE COMBINATION HORN/STROBE AS SHOWN.
- PROVIDE ADDRESSABLE MANUAL PULL STATION AS SHOWN.
- PROVIDE DUCT SMOKE DETECTOR AT HVAC UNIT SUPPLY DUCT. PROVIDE RELAYS AS NECESSARY TO INITIATE SHUT DOWN OF HVAC UNIT UPON DUCT SMOKE DETECTION.

DEMOLITION NOTES

- DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. PROVIDE COVER PLATE ON EXISTING BOX. PATCH AND PAINT TO MATCH EXISTING FINISH.



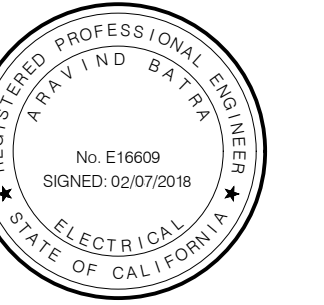
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P2S Engineering, Inc.

5000 East Spring Street, 8th Floor
Long Beach, CA 90815-5218
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www.p2seng.com



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Sheet Title

Liberal Arts
Basement
Fire Alarm Plan

Sheet Number

FA300

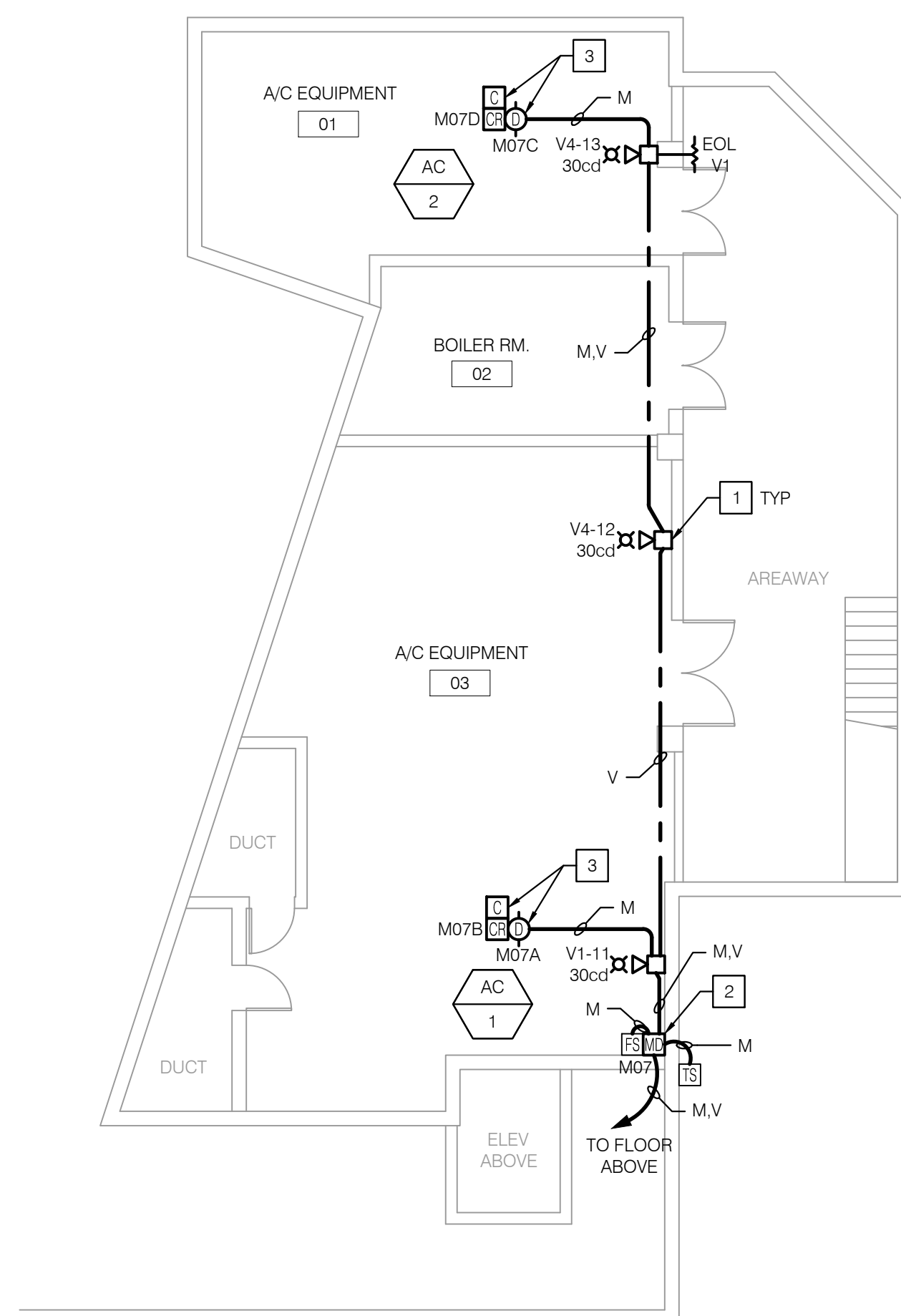
BUILDING INFORMATION	
OCCUPANCY CLASSIFICATION	B, A-3
CONSTRUCTION TYPE	TYPE I
TOTAL SQUARE FOOTAGE	41,537 SQ FEET
TOTAL NUMBER OF FLOORS	3
TOTAL BUILDING HEIGHT	45 FEET
AUTOMATIC FIRE SPRINKLERS	BASEMENT ONLY
OTHER FIRE SUPPRESSION	NO
STORIES	3
REQUIRED SEPARATION	NONE
YEAR OF PERMIT	1976

GENERAL NOTES

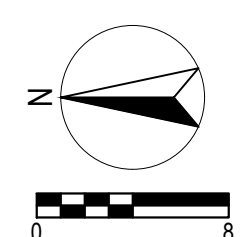
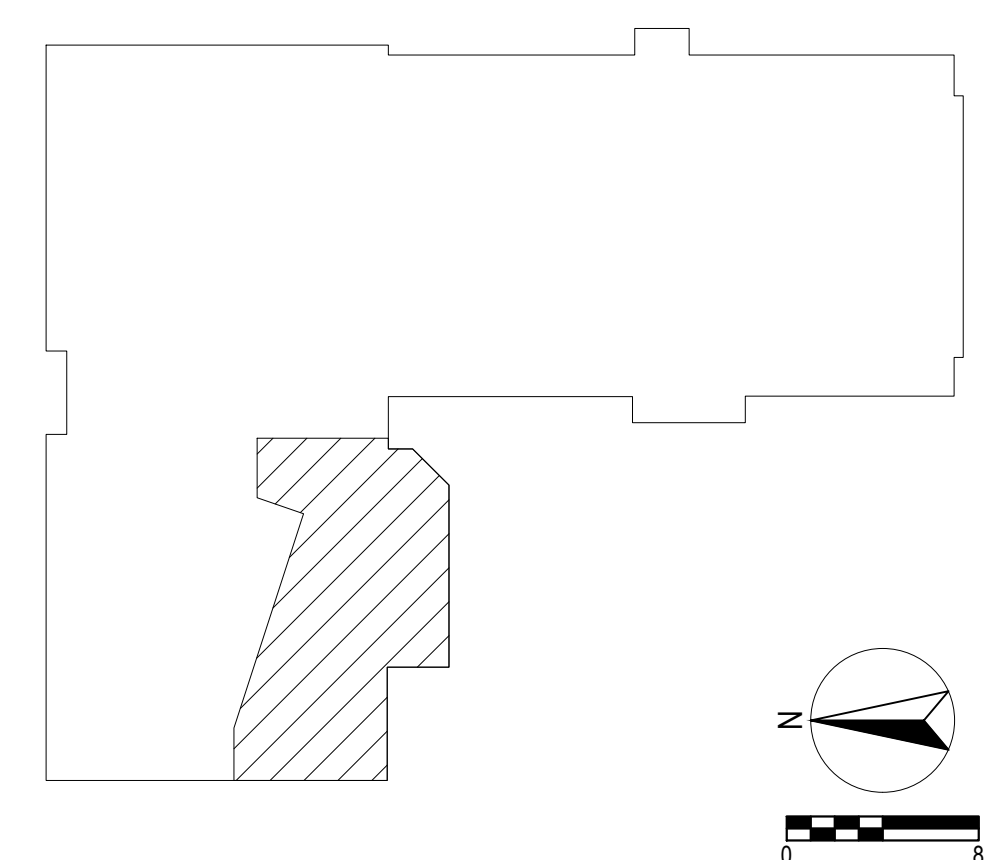
- REFER TO DEVICE SCHEDULE ON SHEET FA001 AND SPECIFICATION SECTION 283100 FOR DETAILS.
- PROVIDE WIREMOLD NON-METALLIC SURFACE MOUNTED RACEWAY IN FINISHED AREAS WHERE CONDUIT CANNOT BE CONCEALED IN EXISTING WALLS.

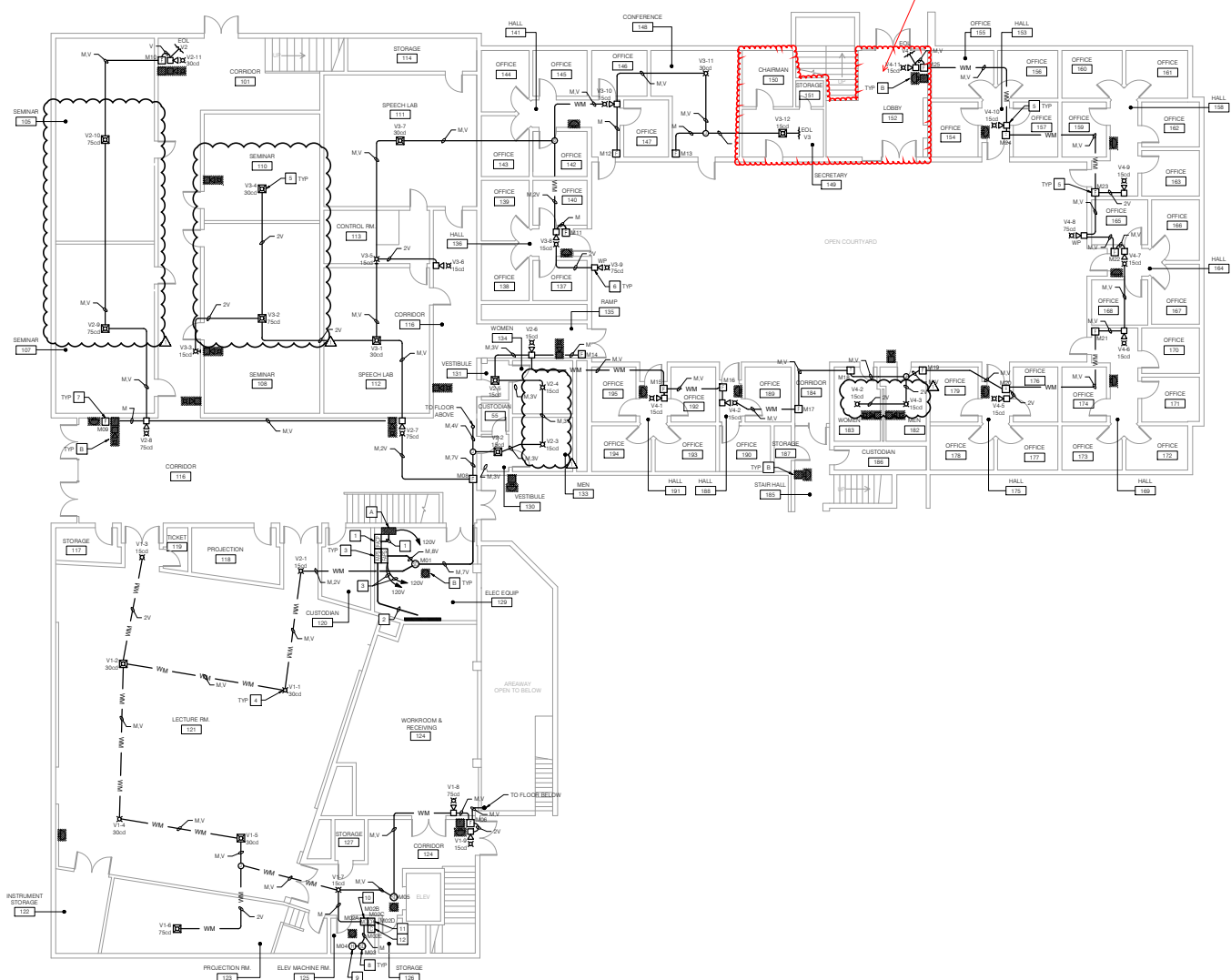
RENOVATION NOTES

- PROVIDE COMBINATION HORN/STROBE AS SHOWN.
- PROVIDE MONITOR MODULE AT EXISTING FIRE SPRINKLER RISER FLOW SWITCH AND TAMPER VALVE.
- PROVIDE DUCT SMOKE DETECTOR AT HVAC UNIT SUPPLY DUCT. PROVIDE RELAYS AS NECESSARY TO INITIATE SHUT DOWN OF HVAC UNIT UPON DUCT SMOKE DETECTION.



KEY PLAN





No access to rooms 106, 107, 108, 109, 110 until June 13, 2018

Make cutouts needs full access to these rooms (Credit Union / Lobby) Monday - Friday 7:00 am - 5:00 pm. Any work in these rooms will need to be coordinated 1 week in advance with the Facilities Project Manager.

GENERAL NOTES

- REFER TO DEVICE SCHEDULE ON SHEET FAB-1 AND SPECIFICATION SECTION 28160 FOR DETAILS.
- PROVIDE WIRE/MOLD NONMETALLIC SURFACE MOUNTED RACEWAY IN FINISHED AREAS WHERE CONDUIT CANNOT BE CONCEALED IN EXISTING WALLS.

RENOVATION NOTES

- PROVIDE FIRE ALARM CONTROL PANEL AS SHOWN. EXTEND EXISTING 120V CIRCUIT SERVING EXISTING FACP AND PROVIDE RED LOCK-ON DEVICES ON EXISTING CIRCUIT BREAKER IN EXISTING POWER PANEL.
- PROVIDE TWO PHONE LINES FROM EXISTING TELECOMMUNICATIONS RACK FOR CENTRAL STATION MONITORING. COORDINATE WITH CAMPUS FOR PROVISION OF AVAILABLE LINES.
- PROVIDE REMOTE POWER SUPPLY AS SHOWN FOR NOTIFICATION DEVICES. FEED FROM EXISTING POWER PANEL. PROVIDE DECATED 120V, 30A LOCK-ON CIRCUIT BREAKER, COLORED RED.
- PROVIDE STROBE AS SHOWN.
- PROVIDE COMBINATION HORN/STROBE AS SHOWN.
- PROVIDE HEATHERPROOF COMBINATION HORN/STROBE AS SHOWN.
- PROVIDE ADDRESSABLE MANUAL PULL STATION AS SHOWN.
- PROVIDE ADDRESSABLE SMOKE DETECTOR AS SHOWN.
- PROVIDE ADDRESSABLE HEAT DETECTOR AS SHOWN.
- PROVIDE ADDRESSABLE MONITOR MODULE AS SHOWN.
- PROVIDE ADDRESSABLE CONTROL RELAY AS SHOWN.
- PROVIDE MULTI-VOLTAGE CONTROL RELAY AS SHOWN.

DEMOLITION NOTES

- DISCONNECT AND REMOVE EXISTING FIRE ALARM CONTROL PANEL. PATCH AND PAINT EXPOSED WALL SURFACE TO MATCH EXISTING FINISH.
- DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. PROVIDE COVER PLATE ON EXISTING BOX. PATCH AND PAINT TO MATCH EXISTING FINISH.



P2S Engineering, Inc.
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 www.p2seng.com



Project Title
Fire Alarm Upgrades at Planetarium and Liberal Arts

San Bernardino Valley College



701 Mt. Vernon Ave
 San Bernardino, CA 92410

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Designed A. Sly
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Date February 7th, 2018

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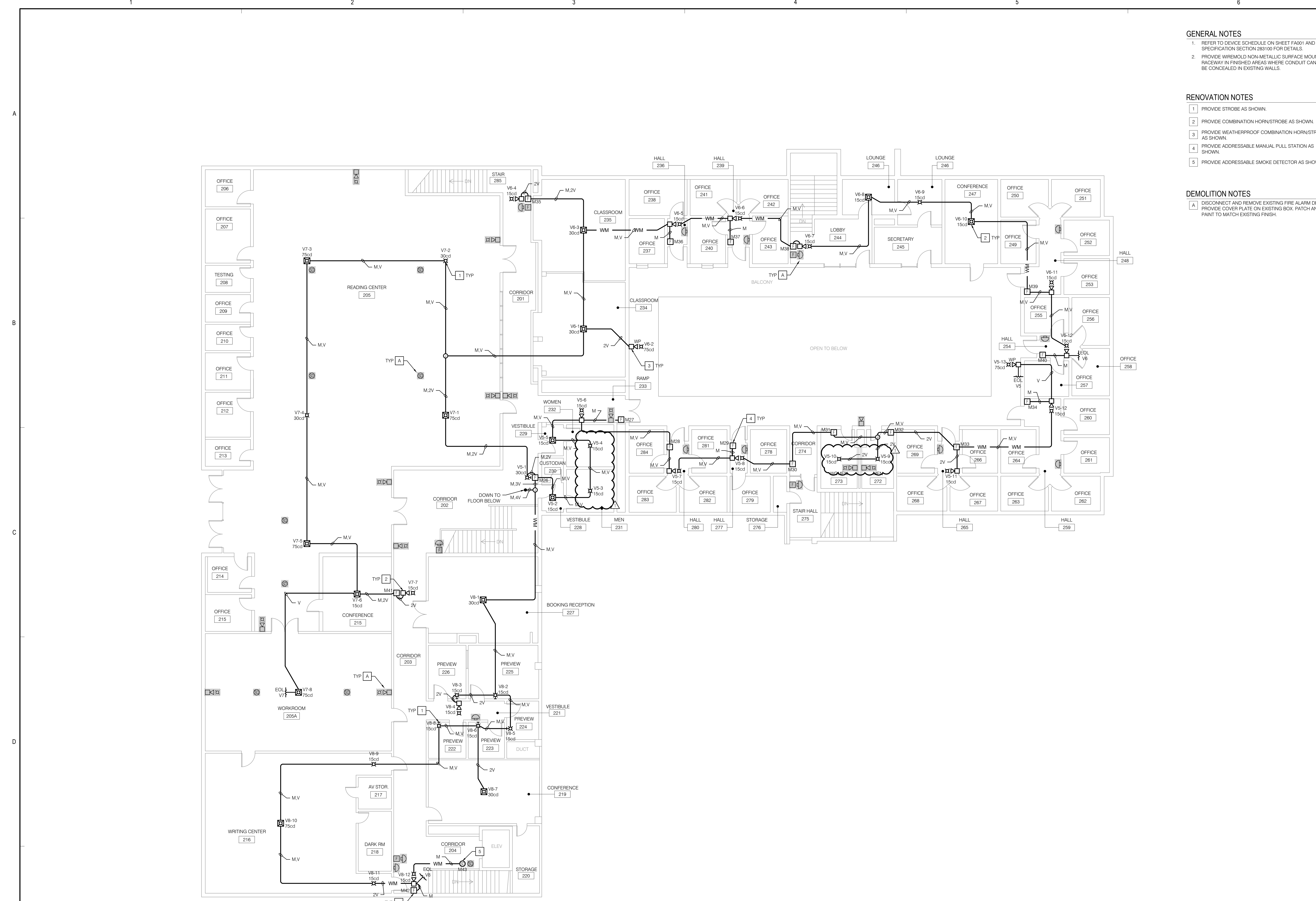
Sheet Title

Liberal Arts
 First Floor
 Fire Alarm Plan

Sheet Number

FA301

P2S ENGINEERING, INC. 4000 EAST SPRING STREET, SUITE 800, LONG BEACH, CA 90801
 PROJECT: FIRE ALARM UPGRADE AT PLANETARIUM AND LIBERAL ARTS
 SHEET: FA301 - FIRST FLOOR FIRE ALARM PLAN
 DATE: 02/07/2018
 DRAWN BY: A. SLY
 CHECKED BY: A. BATRA
 APPROVED BY: A. BATRA



GENERAL NOTES

1. REFER TO DEVICE SCHEDULE ON SHEET FA001 AND SPECIFICATION SECTION 283100 FOR DETAILS.
2. PROVIDE WIREMOLD NON-METALLIC SURFACE MOUNTED RACEWAY IN FINISHED AREAS WHERE CONDUIT CANNOT BE CONCEALED IN EXISTING WALLS.

RENOVATION NOTES

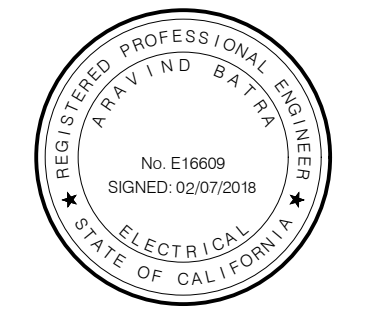
1. PROVIDE STROBE AS SHOWN.
2. PROVIDE COMBINATION HORN/STROBE AS SHOWN.
3. PROVIDE WEATHERPROOF COMBINATION HORN/STROBE AS SHOWN.
4. PROVIDE ADDRESSABLE MANUAL PULL STATION AS SHOWN.
5. PROVIDE ADDRESSABLE SMOKE DETECTOR AS SHOWN.

DEMOLITION NOTES

- A. DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. PROVIDE COVER PLATE ON EXISTING BOX. PATCH AND PAINT TO MATCH EXISTING FINISH.



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 San Bernardino, CA 92410

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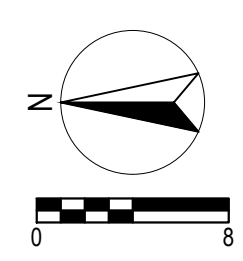
Scale None

Sheet Title

Liberal Arts
 Second Floor
 Fire Alarm Plan

Sheet Number

FA302



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 PLOT: Wednesday, February 7, 2018 12:40:18 PM

VOLTAGE DROP CALCULATION

$$\%VD = \frac{2 \times L \times R \times I}{1000 \times V}$$

WHERE: %VD = PERCENT VOLTAGE DROP
 L = ONE-WAY LENGTH OF CIRCUIT (FEET)
 R = CONDUCTOR RESISTANCE IN OHMS PER THOUSAND FEET (#12: 1.930/1000)
 I = LOAD CURRENT
 V = NOMINAL VOLTAGE

VOLTAGE DROP CIRCUIT SCHEDULE

Panel	Circuit Number	Strobe 15cd	Clg Strobe 15cd	Strobe 30cd	Clg Strobe 30cd	Strobe 75cd	Clg Strobe 75cd	Strobe 110cd	Clg Strobe 110cd	Strobe 15cd	Clg Strobe 15cd	Strobe 30cd	Clg Strobe 30cd	Strobe 75cd	Clg Strobe 75cd	Strobe 110cd	Clg Strobe 110cd	Exterior Horn	Total Current (A)	Dist. from Panel to EOL (Feet)	Percent Voltage Drop (%)	Description
FAPS-LA1	V1		2		2					1		2		3		2			1.286	475	9.8%	Audible/Visual Circuit
	V2		3							1		2		1		2			1.246	400	8.0%	Audible/Visual Circuit
	V3	2			1					3		1		3		1			1.215	500	9.8%	Audible/Visual Circuit
	V4		2							8									0.940	550	8.3%	Audible/Visual Circuit
TOTAL		2	7	0	3	0	0	0	0	13	3	4	3	5	4	0	0	0	4.687			
FAPS-LA2	V5		4	1						5	2								1.087	500	8.7%	Audible/Visual Circuit
	V6		1							6	2			2		1			1.088	550	9.6%	Audible/Visual Circuit
	V7				2					1				2		4			1.050	400	6.8%	Audible/Visual Circuit
	V8	5	2							2				2		1			1.010	450	7.3%	Audible/Visual Circuit
TOTAL		5	7	1	2	0	0	0	0	14	5	0	4	2	5	0	0	0	4.235			
FACP-LA	V9																		0.000		0.0%	SPARE
	V10																		0.000		0.0%	SPARE
TOTAL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	

BATTERY CAPACITY CALCULATION
FAPS-LA2
Electrical Equipment Room 129
First Floor

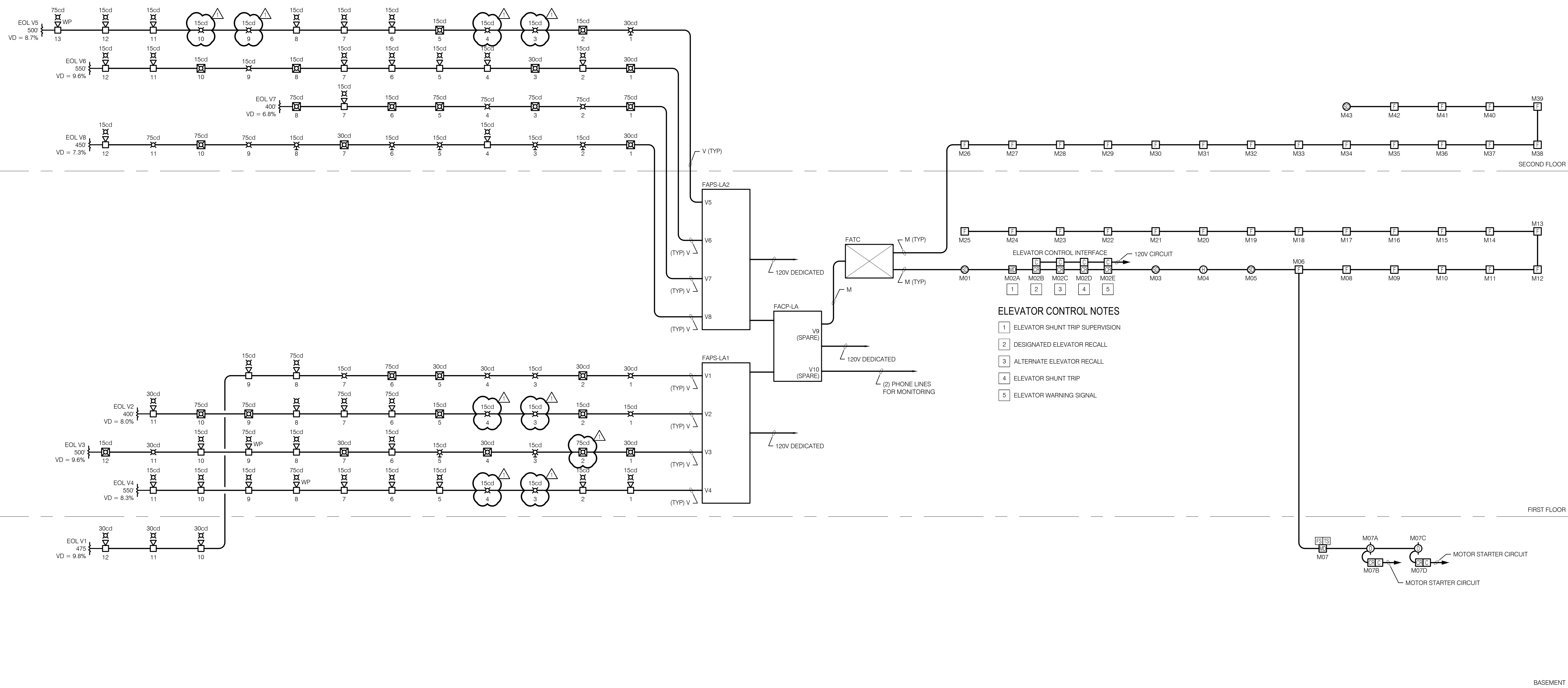
Quantity	Description	Unit Standby Current (A)	Total Standby Current (A)	Unit Alarm Current (A)	Total Alarm Current (A)
PANEL EQUIPMENT					
1	GFPS-6 (Power Supply)	0.075000	0.075000	0.175000	0.175000
NOTIFICATION DEVICES					
5	SR (15cd Strobe)	0.000000	0.000000	0.066000	0.330000
7	SCR (15cd Ceiling Strobe)	0.000000	0.000000	0.094000	0.462000
1	SR (30cd Strobe)	0.000000	0.000000	0.094000	0.094000
2	SCR (30cd Ceiling Strobe)	0.000000	0.000000	0.094000	0.188000
0	SR (75cd Strobe)	0.000000	0.000000	0.158000	0.000000
0	SCR (75cd Ceiling Strobe)	0.000000	0.000000	0.158000	0.000000
0	SR (110cd Strobe)	0.000000	0.000000	0.202000	0.000000
0	SCR (110cd Ceiling Strobe)	0.000000	0.000000	0.202000	0.000000
14	P2R (15cd Horn/Strobe)	0.000000	0.000000	0.079000	1.106000
5	PC2R (15cd Ceiling Horn/Strobe)	0.000000	0.000000	0.079000	0.395000
0	P2R (30cd Horn/Strobe)	0.000000	0.000000	0.107000	0.000000
4	PC2R (30cd Ceiling Horn/Strobe)	0.000000	0.000000	0.107000	0.428000
2	P2R (75cd Horn/Strobe)	0.000000	0.000000	0.176000	0.352000
5	PC2R (75cd Ceiling Horn/Strobe)	0.000000	0.000000	0.176000	0.880000
0	P2R (110cd Horn/Strobe)	0.000000	0.000000	0.212000	0.000000
0	PC2R (110cd Ceiling Horn/Strobe)	0.000000	0.000000	0.212000	0.000000
0	HRK (Exterior Horn)	0.000000	0.000000	0.069000	0.000000
Sub Total			0.075000		4.410000
BATTERY CALCULATIONS					
A-Battery Backup - Standby (hours)			24		
B-Battery Backup (minutes)			5		
C-Allowable Error (%)			20		
D-Total Standby Backup (Amp-Hour)			1.800		
E-Total Alarm Backup (Amp-Hour)			0.368		
F-Allowable Error (C x (D + E))			0.434		
Total Amp-Hour Required (D + E + F)			2.601		
Battery Submitted			7 AH		

BATTERY CAPACITY CALCULATION
FAPS-LA1
Electrical Equipment Room 129
First Floor

Quantity	Description	Unit Standby Current (A)	Total Standby Current (A)	Unit Alarm Current (A)	Total Alarm Current (A)
PANEL EQUIPMENT					
1	GFPS-6 (Power Supply)	0.075000	0.075000	0.175000	0.175000
NOTIFICATION DEVICES					
2	SR (15cd Strobe)	0.000000	0.000000	0.066000	0.132000
7	SCR (15cd Ceiling Strobe)	0.000000	0.000000	0.094000	0.462000
0	SR (30cd Strobe)	0.000000	0.000000	0.094000	0.000000
3	SCR (30cd Ceiling Strobe)	0.000000	0.000000	0.094000	0.282000
0	SR (75cd Strobe)	0.000000	0.000000	0.158000	0.000000
0	SCR (75cd Ceiling Strobe)	0.000000	0.000000	0.158000	0.000000
0	SR (110cd Strobe)	0.000000	0.000000	0.202000	0.000000
0	SCR (110cd Ceiling Strobe)	0.000000	0.000000	0.202000	0.000000
13	P2R (15cd Horn/Strobe)	0.000000	0.000000	0.079000	1.027000
3	PC2R (15cd Ceiling Horn/Strobe)	0.000000	0.000000	0.079000	0.237000
4	P2R (30cd Horn/Strobe)	0.000000	0.000000	0.107000	0.428000
5	PC2R (30cd Ceiling Horn/Strobe)	0.000000	0.000000	0.107000	0.535000
5	P2R (75cd Horn/Strobe)	0.000000	0.000000	0.176000	0.880000
4	PC2R (75cd Ceiling Horn/Strobe)	0.000000	0.000000	0.176000	0.704000
0	P2R (110cd Horn/Strobe)	0.000000	0.000000	0.212000	0.000000
0	PC2R (110cd Ceiling Horn/Strobe)	0.000000	0.000000	0.212000	0.000000
0	HRK (Exterior Horn)	0.000000	0.000000	0.069000	0.000000
Sub Total			0.075000		4.862000
BATTERY CALCULATIONS					
A-Battery Backup - Standby (hours)			24		
B-Battery Backup (minutes)			5		
C-Allowable Error (%)			20		
D-Total Standby Backup (Amp-Hour)			1.800		
E-Total Alarm Backup (Amp-Hour)			0.405		
F-Allowable Error (C x (D + E))			0.441		
Total Amp-Hour Required (D + E + F)			2.646		
Battery Submitted			7 AH		

BATTERY CAPACITY CALCULATION
FACP-LA
Electrical Equipment Room 129
First Floor

Quantity	Description	Unit Standby Current (A)	Total Standby Current (A)	Unit Alarm Current (A)	Total Alarm Current (A)
PANEL EQUIPMENT					
1	7100 Module (2 SCL with DACT)	0.085000	0.085000	0.095000	0.095000
6	ASD-PL2F (Smoke Detector)	0.000300	0.001800	0.006500	0.039000
1	ATD-L2F (Heat Detector)	0.000300	0.000300	0.006500	0.006500
2	AD Housing (Dust Smoke Detector)	0.000110	0.000220	0.005000	0.010000
36	MS-7 (Manual Pull Station)	0.000300	0.010800	0.007000	0.252000
2	AMM-4F (Monitor Module)	0.000375	0.000750	0.005000	0.010000
6	ADM-2SF (Control Relay Module)	0.000375	0.002250	0.006500	0.039000
Sub Total			0.101120		0.541500
BATTERY CALCULATIONS					
A-Battery Backup - Standby (hours)			24		
B-Battery Backup (minutes)			5		
C-Allowable Error (%)			20		
D-Total Standby Backup (Amp-Hour)			2.427		
E-Total Alarm Backup (Amp-Hour)			0.045		
F-Allowable Error (C x (D + E))			0.494		
Total Amp-Hour Required (D + E + F)			2.966		
Battery Submitted			7 AH		



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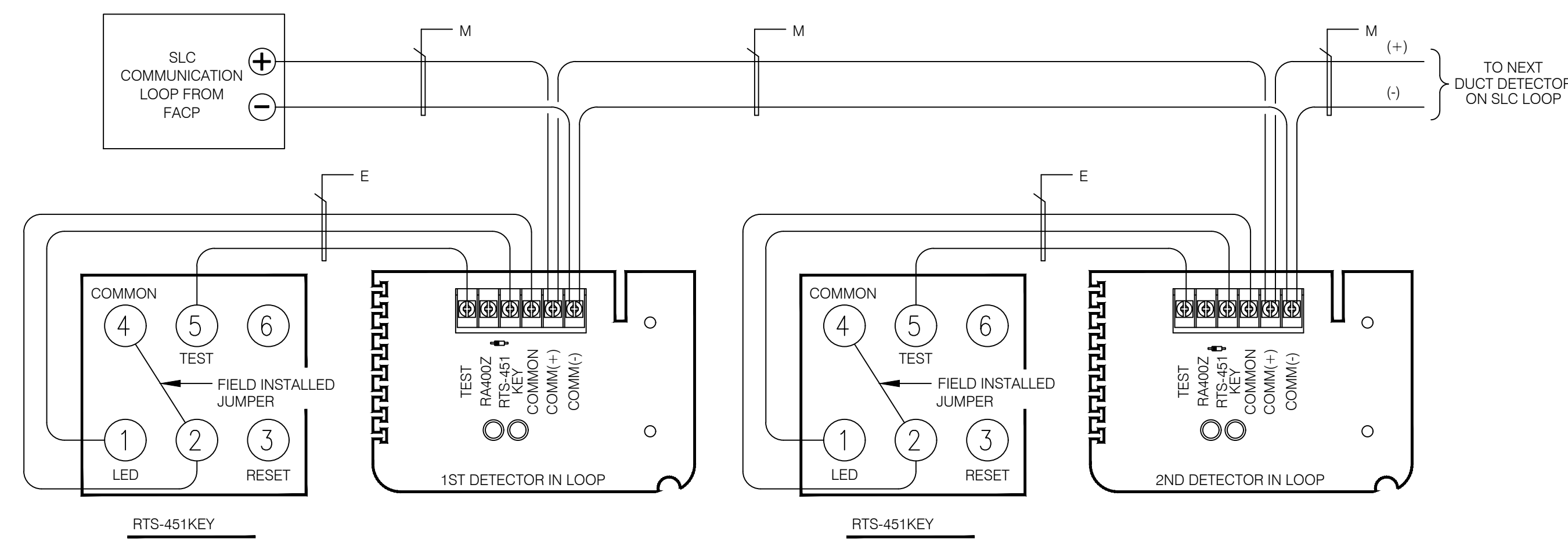
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Sheet Title

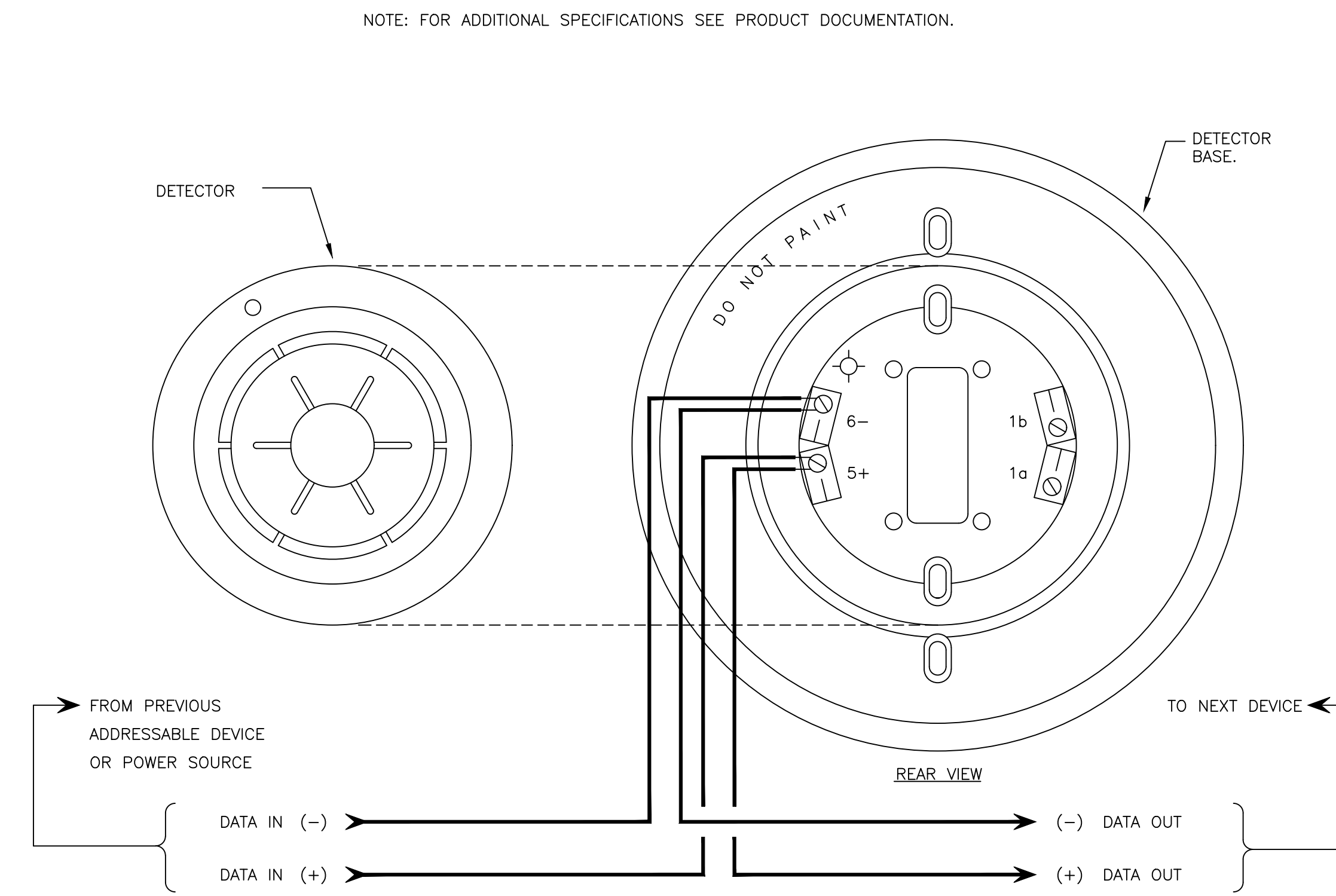
**Liberal Arts
 Riser Diagram and
 Calculations**

Sheet Number

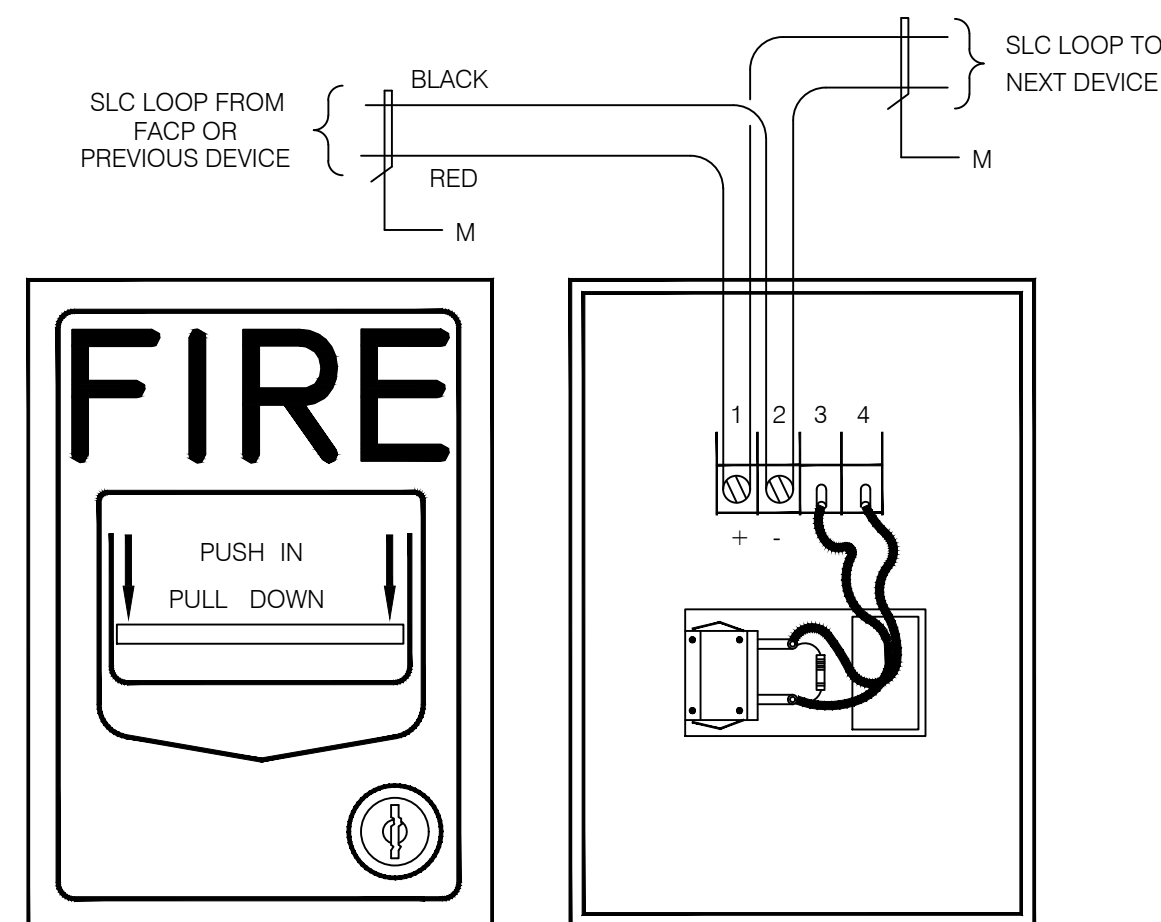
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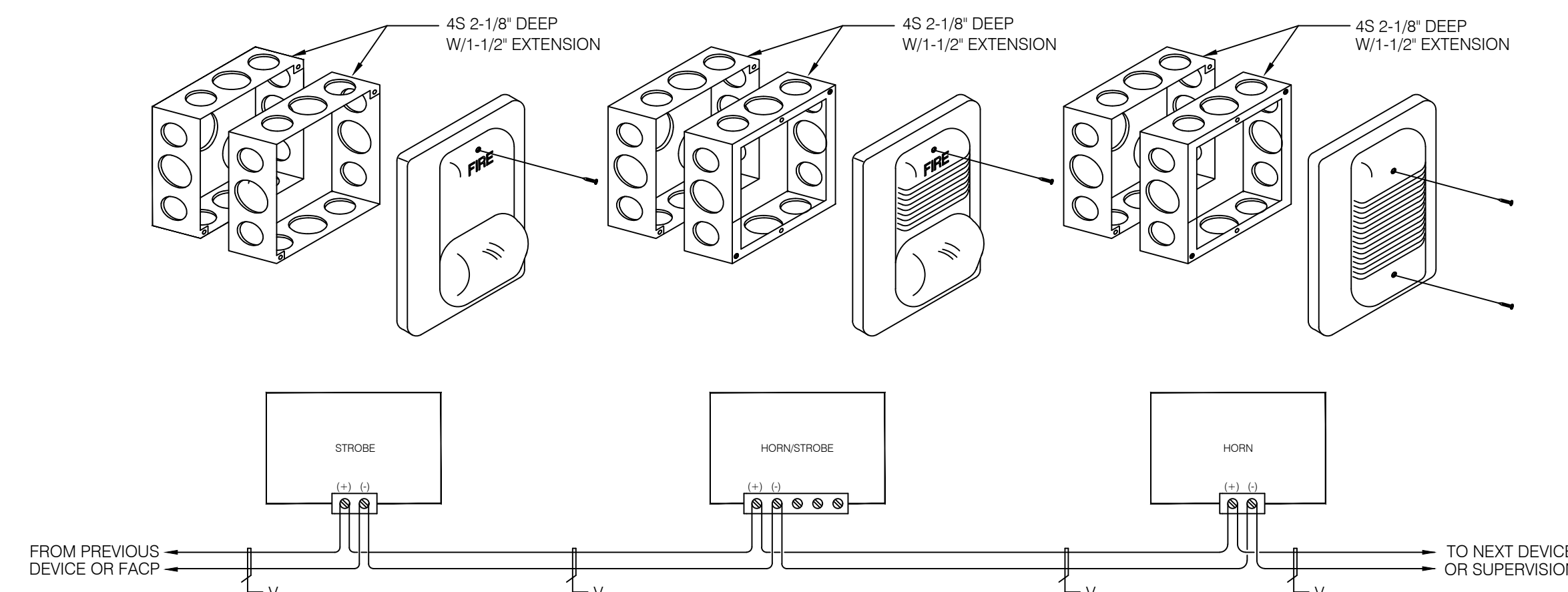
5 DUCT SMOKE DETECTOR DETAIL
NO SCALE



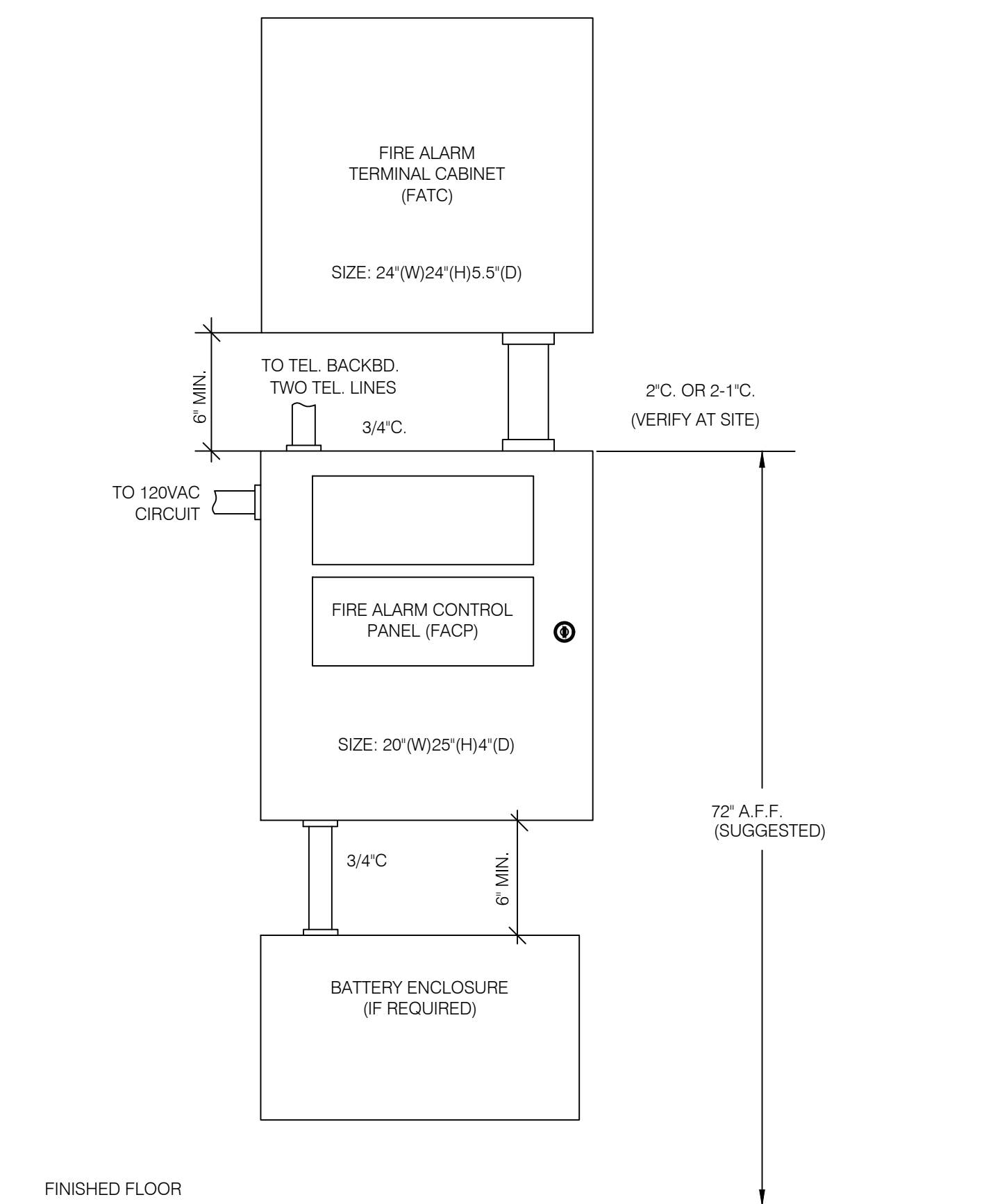
2 SMOKE/HEAT DETECTOR DETAIL
NO SCALE



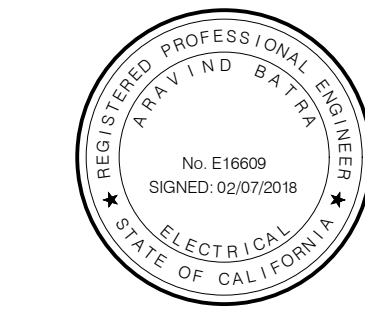
4 MANUAL PULL STATION DETAIL
NO SCALE



3 HORN-STROBE DETAIL
NO SCALE



1 FIRE ALARM CONTROL PANEL DETAIL
NO SCALE



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Submittal DSA Addendum #1 Submittal

Scale None

Sheet Title

Details

Sheet Number

FA601

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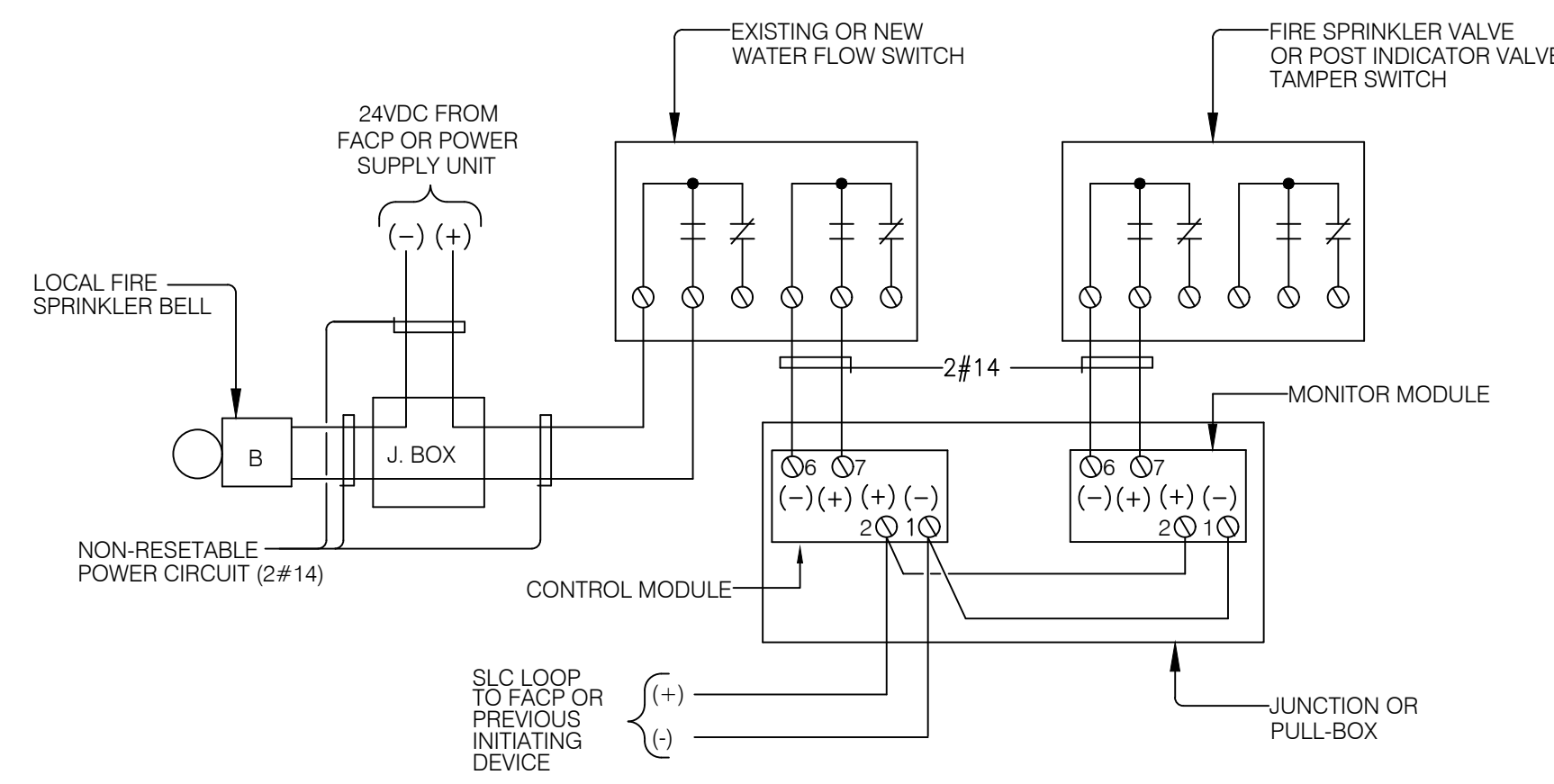
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Sheet Title

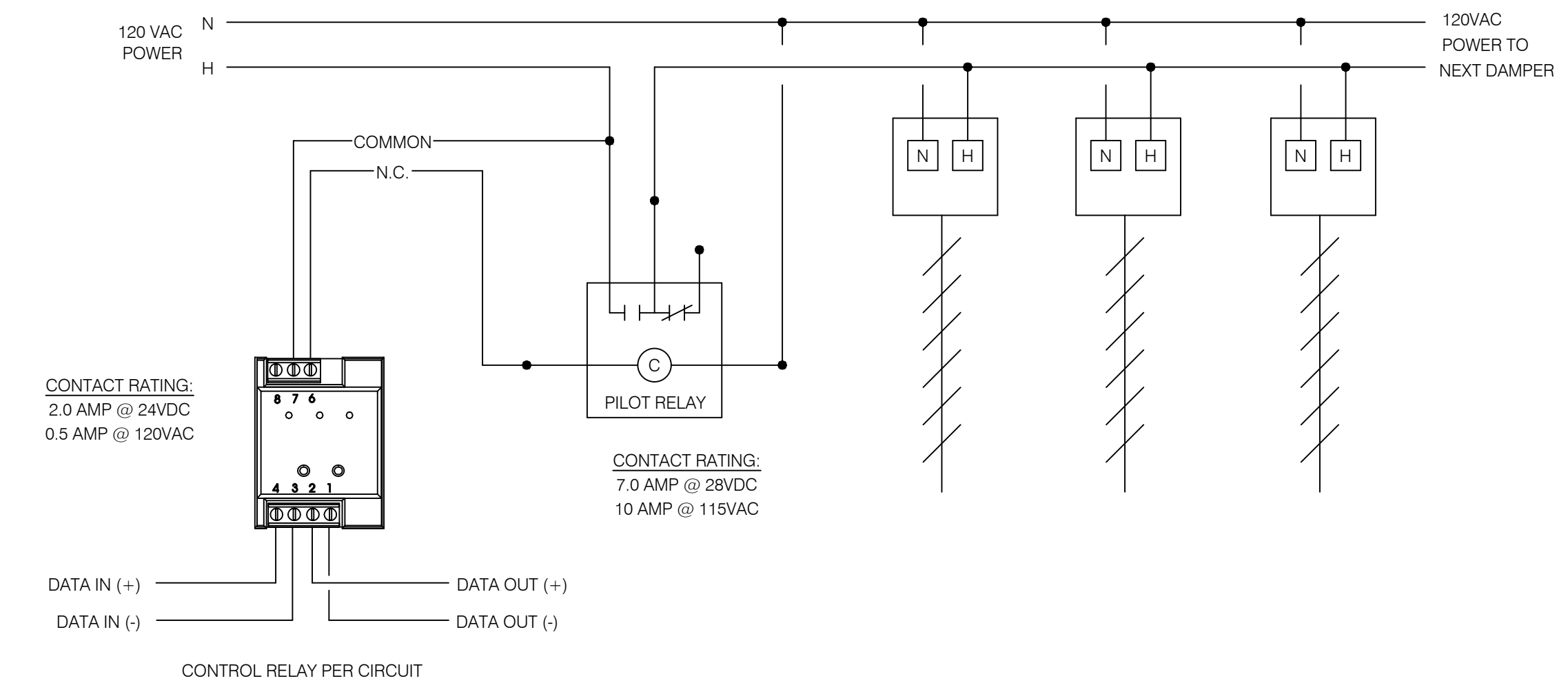
Details

Sheet Number

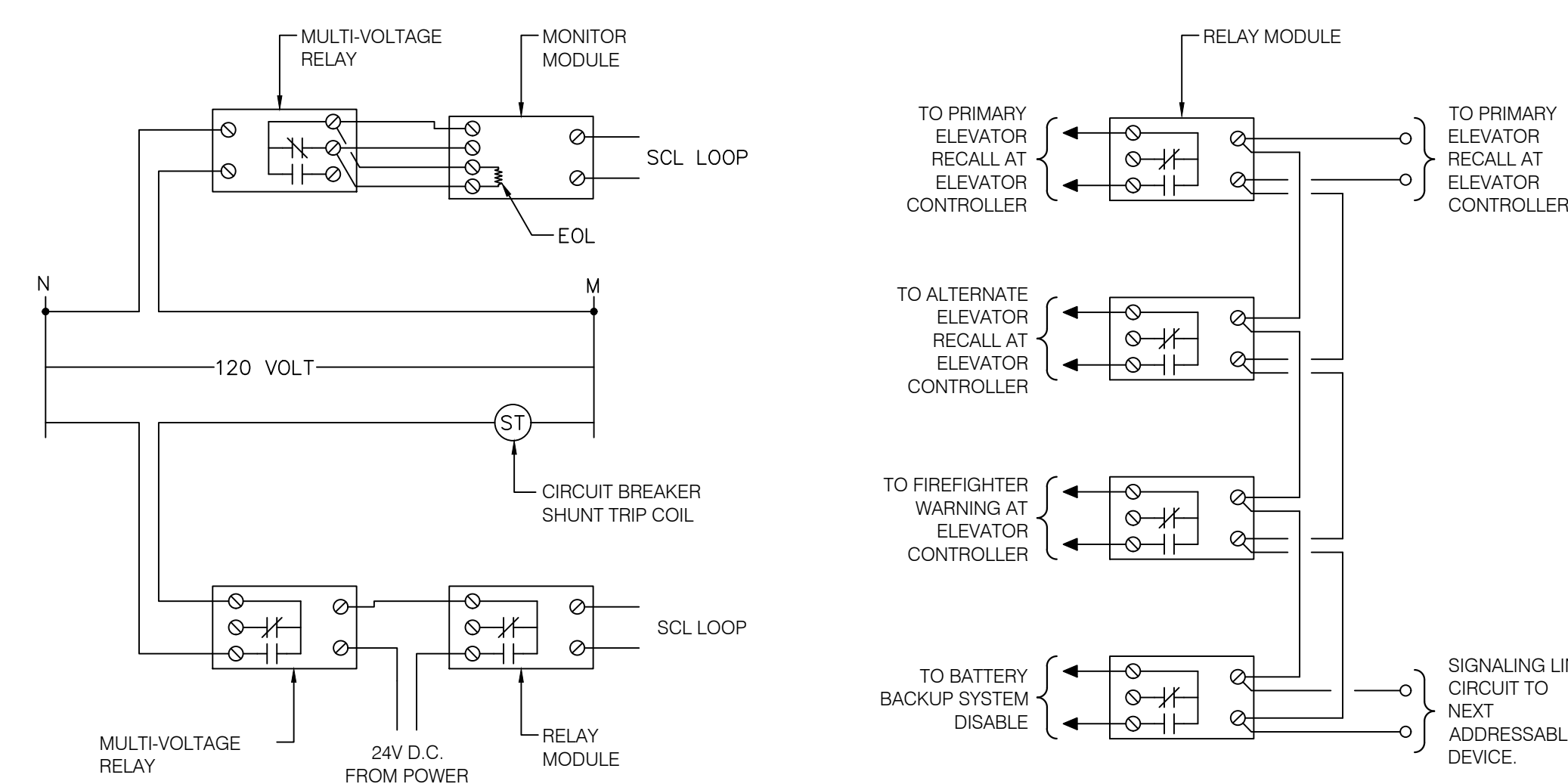
FA602



4 SPRINKLER TAMPER AND FLOW SWITCH/BELL DIAGRAM
NO SCALE



2 FIRE/SMOKE DAMPER WIRING DIAGRAM
NO SCALE

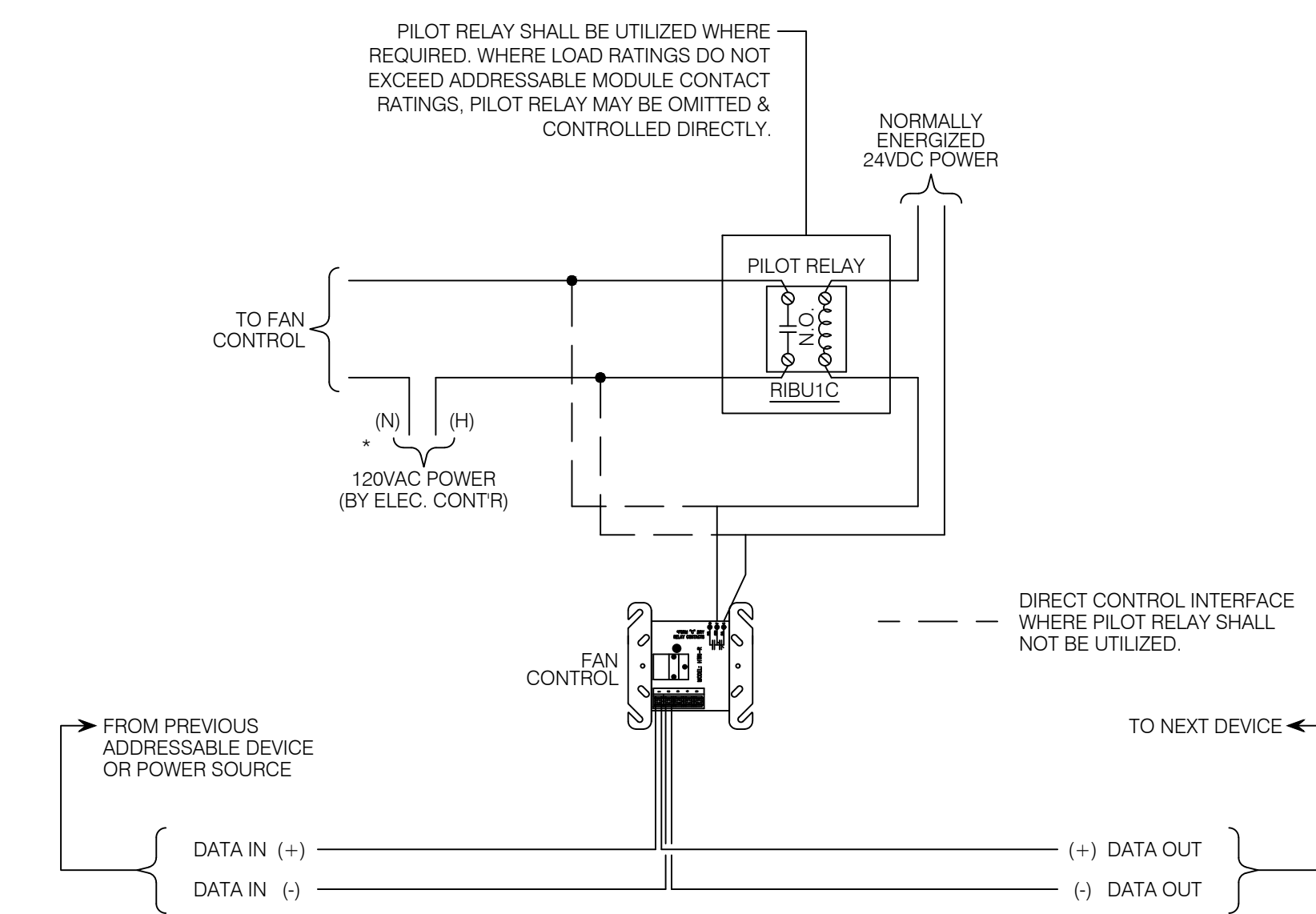


- NOTES:**
1. INSTALL NEW RELAYS AND MONITOR MODULE WITHIN A NEW TERMINAL CABINET.
 2. LOCATE TERMINAL CABINET NEAR LOCATION OF SHUNT TRIP CIRCUIT BREAKER.

**FIRE ALARM – ELEVATOR POWER
MONITOR AND SHUNT TRIP**

- NOTES:**
1. COORDINATE WITH ELEVATOR CONTRACTOR FOR ELEVATOR CONTROLLER CONNECTIONS.

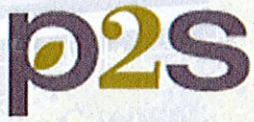
**FIRE ALARM – ELEVATOR
RECALL CONTROL DETAIL**



1 HVAC UNIT SHUTDOWN DIAGRAM
NO SCALE

FILE PATH: A:\PROJECTS\FA602\FA602.DWG
 PLOT: Wednesday, February 7, 2018 12:40:59 PM

EXHIBIT E



THE VISION TO CHANGE.
THE INTEGRITY TO SUSTAIN

MECHANICAL | ELECTRICAL | PLUMBING | ENERGY | COMMISSIONING | TECHNOLOGY

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

04 116000

ACS _____ FLS 1/4 SS _____
DATE 5/23/17

FLY: N. Ghay

San Bernardino Valley College

Fire Alarm Upgrades at Planetarium and Liberal Arts Specifications

May, 2017

Submitted by:

P2S Engineering, Inc.
5000 East Spring Street
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SECTION 26 0500

COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Electrical equipment coordination and installation.
 - 2. Sleeves for raceways and cables.
 - 3. Sleeve seals.
 - 4. Grout.
 - 5. Common electrical installation requirements.

1.3 DEFINITIONS

- A. EPDM: Ethylene-propylene-diene terpolymer rubber.
- B. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

- A. Product Data: For sleeve seals.

1.5 COORDINATION

- A. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

PART 2 - PRODUCTS

2.1 SLEEVES FOR RACEWAYS AND CABLES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
- C. Sleeves for Rectangular Openings: Galvanized sheet steel.
 - 1. Minimum Metal Thickness:
 - a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and no side more than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).

- b. For sleeve cross-section rectangle perimeter equal to, or more than, 50 inches (1270 mm) and 1 or more sides equal to, or more than, 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

2.2 SLEEVE SEALS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Advance Products & Systems, Inc.
 - b. Calpico, Inc.
 - c. Metraflex Co.
 - d. Pipeline Seal and Insulator, Inc.
 - 2. Sealing Elements: NBR interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
 - 3. Pressure Plates: Stainless steel. Include two for each sealing element.
 - 4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.3 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

END OF SECTION

SECTION 26 0529

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. IMC: Intermediate metal conduit.
- C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of **five** times the applied force.

1.5 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Steel slotted support systems.
- B. Shop Drawings: **Signed and sealed by a qualified professional engineer.** Show fabrication and installation details and include calculations for the following:
 - 1. Trapeze hangers. Include Product Data for components.
 - 2. Steel slotted channel systems. Include Product Data for components.

1.6 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

1.7 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. ERICO International Corporation.
 - d. GS Metals Corp.
 - e. Thomas & Betts Corporation.
 - f. Unistrut; Tyco International, Ltd.
 - g. Wesanco, Inc.
 - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
 - 3. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
 - 4. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: **Steel** hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
 - 1. Power-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Hilti Inc.
 - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 3) MKT Fastening, LLC.

- 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
2. Mechanical-Expansion Anchors: Insert-wedge-type, **zinc-coated** steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti Inc.
 - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as **required by** NFPA 70. Minimum rod size shall be 1/4 inch in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least **25** percent in future without exceeding specified design load limits.
 1. Secure raceways and cables to these supports with **two-bolt conduit clamps**.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

- C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
 2. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 3. To Existing Concrete: Expansion anchor fasteners.
 4. Instead of expansion anchors, power-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
 5. To Steel: **Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts.**
 6. To Light Steel: Sheet metal screws.
 7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, control enclosures, pull and junction boxes, and other devices on slotted-channel racks attached to substrate **by means that meet seismic-restraint strength and anchorage requirements.**
- D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION

SECTION 26 0533

RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Metal conduits, tubing, and fittings.
 - 2. Nonmetal conduits, and fittings.
 - 3. Boxes, enclosures, and cabinets.

1.3 DEFINITIONS

- A. EMT: Electrical metal tubing
- B. GRC: Galvanized rigid steel conduit.
- C. LFMC: Liquidtite flexible metal conduit
- D. RNC: Rigid non-metallic conduit

1.4 QUALITY ASSURANCE:

- A. Each conduit shall bear manufacturer's trademark and UL label.
- B. Each type of conduit and fittings shall be of a single manufacturer. Multiple manufacturers of the same material are not acceptable.
- C. Comply with California Electric Code (CEC)

1.5 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

1.6 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of items involved:
 - 1. Structural members in paths of conduit groups with common supports.
- B. Qualification Data: For professional engineer.

- C. Seismic Qualification Certificates: For enclosures, cabinets, and conduit racks and their mounting provisions, including those for internal components, from manufacturer.
 - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
 - 2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
 - 3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
 - 4. Detailed description of conduit support devices and interconnections on which the certification is based and their installation requirements.
- D. Source quality-control reports.

PART 2 - PRODUCTS

2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, **provide products by one of the following**:
 - 1. Allied Tube & Conduit; a Tyco International Ltd. Co.
 - 2. Electri-Flex Company.
 - 3. O-Z/Gedney; a brand of EGS Electrical Group.
 - 4. Republic Conduit.
 - 5. Robroy Industries.
 - 6. Thomas & Betts Corporation.
 - 7. Western Tube and Conduit Corporation.
 - 8. Wheatland Tube Company; a division of John Maneely Company.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be UL listed and labeled as defined in NFPA 70, and marked for intended location and application.
- C. GRC: Comply with ANSI C80.1 and UL 6.
- D. PVC-Coated Steel Conduit: PVC-coated **rigid steel conduit**.
 - 1. Comply with NEMA RN 1.
 - 2. Coating Thickness: 0.040 inch, minimum.
- E. EMT: Comply with ANSI C80.3 and UL 797.
- F. FMC: Comply with UL 1; **zinc-coated steel**.
- G. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- H. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
 - 1. Fittings for EMT:
 - a. Material: **Steel**.
 - b. Type: **Compression type**
 - 2. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
 - 3. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch, with overlapping sleeves protecting threaded joints.

- I. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 NONMETALLIC CONDUITS, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, **provide products by one of the following:**
 1. CANTEX Inc.
 2. Condux International, Inc.
 3. Electri-Flex Company.
 4. Lamson & Sessions; Carlon Electrical Products.
 5. RACO; a Hubbell company.
 6. Thomas & Betts Corporation.
- B. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. RNC: **Type EPC-40-PVC**, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- D. Fittings for RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
- E. Solvent cements and adhesive primers shall have a VOC content of 510 and 550 g/L or less, respectively, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- F. Solvent cements and adhesive primers shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.3 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, **provide products by one of the following:**
 1. Cooper Technologies Company; Cooper Crouse-Hinds.
 2. EGS/Appleton Electric.
 3. Hoffman; a Pentair company.
 4. Hubbell Incorporated; Killark Division.
 5. O-Z/Gedney; a brand of EGS Electrical Group.
 6. RACO; a Hubbell Company.
 7. Robroy Industries.
 8. Thomas & Betts Corporation.
 9. Wiremold / Legrand.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- D. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- E. Device Box Dimensions: **4 inches square by 2-1/8 inches deep.**

- F. Gangable boxes **are prohibited**.
- G. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, **Type 1** with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: **GRC**.
 - 2. Concealed Conduit, Aboveground: **GRC**. Use EPC-40PVC inside concrete walls and columns only.
 - 3. Underground Conduit: **Type EPC-40-PVC, direct buried**.
 - 4. Boxes and Enclosures, Aboveground: NEMA 250, **Type 3R**.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage: **EMT**.
 - 2. Exposed and Subject to Physical Damage: **GRC**. Raceway locations include the following:
 - a. Loading dock.
 - b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
 - c. Mechanical rooms.
 - d. Gymnasiums.
 - 3. Concealed in Ceilings and Interior Walls and Partitions: **EMT**.
 - 4. Concealed in concrete walls and columns: RNC Type EPC-40-PVC.
 - 5. Damp or Wet Locations: **GRC**.
 - 6. Boxes and Enclosures: NEMA 250, Type 1.
- C. Minimum Raceway Size: **3/4-inch** trade size. **1/2-inch**
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 - 2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
 - 3. EMT: Use **compression, steel** fittings. Comply with NEMA FB 2.10.
 - 4. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- E. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.
- F. Do not install nonmetallic conduit where ambient temperature exceeds **120 deg F**.

3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for

- aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
 - C. Complete raceway installation before starting conductor installation.
 - D. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
 - E. Arrange stub-ups so curved portions of bends are not visible above finished slab.
 - F. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
 - G. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
 - H. Support conduit within 12 inches of enclosures to which attached.
 - I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
 - J. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.
 - K. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
 - L. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
 - M. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
 - N. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
 - O. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
 - P. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less 250lbs tensile strength. Leave at least 12 inches of slack at each end of pull wire. Provide acrylic identification tags (2"X4") at each end indicating the source. Cap underground raceways designated as spare above grade alongside raceways in use.
 - Q. Comply with manufacturer's written instructions for solvent welding RNC and fittings.

- R. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations.
- S. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to **center** of box unless otherwise indicated.
- T. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a rain tight connection between box and cover plate or supported equipment and box.
- U. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- V. Locate boxes so that cover or plate will not span different building finishes.
- W. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- X. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3.3 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.4 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION

SECTION 26 0544**SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
 - 2. Sleeve-seal systems.
 - 3. Sleeve-seal fittings.
 - 4. Grout.
 - 5. Silicone sealants.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS**2.1 SLEEVES**

- A. Wall Sleeves:
 - 1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
 - 2. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.
- B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.
- C. PVC-Pipe Sleeves: ASTM D 1785, Schedule 40.
- D. Molded-PVC Sleeves: With nailing flange for attaching to wooden forms.
- E. Molded-PE or -PP Sleeves: Removable, tapered-cup shaped, and smooth outer surface with nailing flange for attaching to wooden forms.
- F. Sleeves for Rectangular Openings:
 - 1. Material: Galvanized sheet steel.
 - 2. Minimum Metal Thickness:
 - a. For sleeve cross-section rectangle perimeter less than 50 inches and with no side larger than 16 inches, thickness shall be 0.052 inch.
 - b. For sleeve cross-section rectangle perimeter 50 inches or more and one or more sides larger than 16 inches, thickness shall be 0.138 inch.

2.2 SLEEVE-SEAL SYSTEMS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
1. Manufacturers: Subject to compliance with requirements **provide products by one of the following manufacturers:**
 - a. Advance Products & Systems, Inc.
 - b. CALPICO, Inc.
 - c. Metraflex Company (The).
 - d. Pipeline Seal and Insulator, Inc.
 - e. Proco Products, Inc.
 2. Sealing Elements: **EPDM** rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
 3. Pressure Plates: **Carbon steel.**
 4. Connecting Bolts and Nuts: Carbon steel, with corrosion-resistant coating, of length required to secure pressure plates to sealing elements.

2.3 SLEEVE-SEAL FITTINGS

- A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.
1. Manufacturers: Subject to compliance with requirements, **provide products by one of the following manufacturers:**
 - a. Presealed Systems.

2.4 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5000-psi, 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

2.5 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
 2. Sealant shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
 - B. Comply with NEMA VE 2 for cable tray and cable penetrations.
 - C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
 - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
 - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Section 079200 "Joint Sealants."
 - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
 - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 3. Size pipe sleeves to provide **1/4-inch** annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed **or unless seismic criteria require different clearance**.
 - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
 - 5. Install sleeves for floor penetrations. Extend sleeves installed in floors **2 inches** above finished floor level. Install sleeves during erection of floors.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
 - 1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.
- E. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
- F. Aboveground, Exterior-Wall Penetrations: Seal penetrations using **steel** pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- G. Underground, Exterior-Wall and Floor Penetrations: Install **PVC Coated** cast-iron pipe sleeves. Size sleeves to allow for 1-inch annular clear space between raceway or cable and sleeve for installing sleeve-seal system.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.
- D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION

SECTION 28 0513**CONDUCTORS AND CABLES FOR ELECTRONIC SAFETY AND SECURITY****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Fire alarm wire and cable.
 - 2. Identification products.

1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. IDC: Insulation displacement connector.
- C. Low Voltage: As defined in NFPA 70 for circuits and equipment operating at less than 50 V or for remote-control and signaling power-limited circuits.
- D. Open Cabling: Passing telecommunications cabling through open space (e.g., between the studs of a wall cavity).
- E. RCDD: Registered Communications Distribution Designer.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate layout and installation of electronic safety and security cabling with Owner's telecommunications and LAN equipment and service suppliers.
- B. Coordinate telecommunications outlet/connector locations with location of power receptacles at each work area.

1.5 ACTION SUBMITTALS

- A. Shop Drawings:
 - 1. System Labeling Schedules: Electronic copy of labeling schedules, in software and format selected by Owner.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified layout technician, installation supervisor, and field inspector.
- B. Source quality-control reports.
- C. Field quality-control reports.

1.7 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An NRTL.
 - 1. Testing Agency's Field Supervisor: Currently certified by BICSI as an RCDD to supervise on-site testing.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: **25** or less.
 - 2. Smoke-Developed Index: **50** or less.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 FIRE ALARM WIRE AND CABLE

- A. General Wire and Cable Requirements: NRTL listed and labeled as complying with NFPA 70, Article 760.
- B. Signaling Line Circuits: Twisted, shielded pair, **not less than No. 18 AWG**.
 - 1. Circuit Integrity Cable: Twisted shielded pair, NFPA 70, Article 760, Classification CI, for power-limited fire alarm signal service Type FPL. NRTL listed and labeled as complying with UL 1424 and UL 2196 for a two-hour rating.
- C. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 deg C, color-coded insulation, and complying with requirements in UL 2196 for a two-hour rating.
 - 1. Low-Voltage Circuits: No. 16 AWG, minimum, in pathway.
 - 2. Line-Voltage Circuits: No. 12 AWG, minimum, in pathway.
 - 3. Multiconductor Armored Cable: NFPA 70, Type MC, copper conductors, Type TFN/THHN conductor insulation, copper drain wire, copper armor with red identifier stripe, NRTL listed for fire alarm and cable tray installation, plenum rated.

2.3 IDENTIFICATION PRODUCTS

- A. Comply with TIA-606-B and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.

PART 3 - EXECUTION

3.1 INSTALLATION OF HANGERS AND SUPPORTS

- A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for installation of supports for cables.

3.2 WIRING METHOD

- A. Install wiring in metal pathways and wireways.

1. Minimum conduit size shall be **3/4 inch**. Control and data-transmission wiring shall not share conduits with other building wiring systems.
 2. Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems."
- B. Install cable, concealed in accessible ceilings, walls, and floors when possible.

3.3 FIRE ALARM WIRING INSTALLATION

- A. Comply with NECA 1 and NFPA 72.
- B. Wiring Method: Install wiring in metal pathway according to Section 260533 "Raceways and Boxes for Electrical Systems."
1. Install plenum cable in environmental air spaces, including plenum ceilings.
 2. Fire alarm circuits and equipment control wiring associated with the fire alarm system shall be installed in a dedicated pathway system. This system shall not be used for any other wire or cable.
- C. Wiring Method:
1. Cables and pathways used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, may not contain any other wire or cable.
 2. Fire-Rated Cables: Use of two-hour, fire-rated fire alarm cables, NFPA 70, Types MI and CI, is **not** permitted.
 3. Signaling Line Circuits: Power-limited fire alarm cables **may** be installed in the same cable or pathway as signaling line circuits.
- D. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.
- E. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes, cabinets, or equipment enclosures where circuit connections are made.
- F. Color Coding: Color code fire alarm conductors differently from the normal building power wiring. Use one color code for alarm circuit wiring and another for supervisory circuits. Color code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visible alarm-indicating devices. Paint fire alarm system junction boxes and covers red.
- G. Risers: Install at least two vertical cable risers to serve the fire alarm system. Separate risers in close proximity to each other with a minimum one-hour-rated wall, so the loss of one riser does not prevent the receipt or transmission of signals from other floors or zones.
- H. Wiring to Remote Alarm Transmitting Device: 1-inch conduit between the fire alarm control panel and the transmitter. Install number of conductors and electrical supervision for connecting wiring as needed to suit monitoring function.

3.4 CONNECTIONS

- A. Comply with requirements in **Section 283111 "Digital, Addressable Fire-Alarm System"** for connecting, terminating, and identifying wires and cables.

3.5 FIRESTOPPING

- A. Comply with TIA-569-C, "Firestopping" Annex A.
- B. Comply with BICSI TDMM, "Firestopping Systems" Article.

3.6 IDENTIFICATION

- A. Identify system components, wiring, and cabling complying with TIA-606-B.

3.7 FIELD QUALITY CONTROL

- A. Testing Agency: **Engage** a qualified testing agency to perform tests and inspections.
- B. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.
- C. Perform the following tests and inspections **with the assistance of a factory-authorized service representative**:
- D. End-to-end cabling will be considered defective if it does not pass tests and inspections.
- E. Prepare test and inspection reports.

END OF SECTION

SECTION 28 3111**DIGITAL ADDRESSABLE FIRE ALARM SYSTEM****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes:
 - 1. Fire alarm system operation.
 - 2. Fire alarm equipment.
 - 3. Fire alarm wiring.
- B. Design, furnish and install an integrated, manual/automatic analog and addressable, proprietary, monitoring and control system for a complete fire alarm system as described herein. The system includes processing units, local data panels, remote annunciators and peripheral alarm devices and outputs for specified control functions.
- C. System includes, but is not limited to, controls, power supplies, signal initiating, ADA compliant strobe light units and sounding devices, modules, batteries, relays, conduit, annunciators, remote site digital dual phone line signal transmitters, wiring and other equipment necessary for a complete and operating system.

1.2 SYSTEM DESCRIPTION

- A. System Supervision: Provide electrically supervised, microprocessor-based Class B system, with analog/addressable supervised two-wire Class B initiating circuit and fault-tolerant indicating circuit. Occurrence of single ground or open condition in initiating or signaling circuit places circuit in "trouble" mode. Component or power supply failure places system in "trouble" mode. Occurrence of single ground or open condition on alarm initiating circuit or on signaling circuit does not disable that circuit or control panel from transmitting "alarm." Provide complete English language annunciation and control of fire management operations (e.g., alarm, evacuation signaling, public address transmission, telephone selection, fan/damper control and elevator capture).
- B. Alarm Sequence of Operation: Activation of manual or automatic initiating device causes system to enter alarm, which includes the following operations:
 - 1. Sound and display local fire alarm signaling devices. Transmit evacuation signal if a second alarm occurs on the same zone.
 - 2. Transmit signal to remote station equipment, i.e., the local fire department or University's selected vendor. Provide necessary connections to digital dialer.
 - 3. Provide local English language annunciation of device location and address.
 - 4. Transmit signal to building mechanical systems to initiate shutdown of fans and damper operations.
 - 5. Transmit signal to release door hold open devices.
 - 6. Transmit signals to building elevator control panel to initiate elevator recall.
 - 7. Transmit signal to building security system.
 - 8. Display English language annunciation of device location and address on the remote annunciator.
 - 9. Transmit signal to fire/smoke dampers.
 - 10. Provide Fire Department Lock box

- C. Alarm Reset: Key-accessible reset function resets alarm system out of alarm if alarm initiating circuits have cleared. Reset to be located on both the main fire alarm control panel and the remote annunciator.
- D. Trouble Sequence of Operation: System trouble, including grounding or open circuit of supervised circuit, or power or system failure, or fire sprinkler tamper activation causes system to enter "trouble" mode including the following operations:
 - 1. Local English language annunciation of device location, address and condition and audible trouble alarm by device at control panel.
 - 2. Local English language annunciation of device location, address and condition and audible trouble alarm at annunciator panels.
 - 3. Provide manual "acknowledge" function at control panel and at remote annunciator to silence audible trouble alarm, visual alarm remains displayed until initiating trouble is cleared.
 - 4. Transmit "trouble" signal to remote station equipment.
- E. Lamp Test: Manual "lamp test" function causes all of the annunciation lamps to illuminate at fire alarm control and remote annunciator panels. Provide "lamp test" function at each annunciator panel.
- F. Manual drill function alarm mode operation:
 - 1. Sound and display local fire alarm signaling devices.
 - 2. Indicate location of device in alarm on fire alarm control panel and on remote annunciators.
 - 3. Notify remote station monitoring.
- G. Zoning: Provide each initiating device with its own discrete analog address module.
- H. Power Requirements:
 - 1. The control panel shall receive 120VAC via a dedicated circuit breaker with lock-on device per NFPA requirements.
 - 2. Provide the system with sufficient battery capacity to operate the entire system upon loss of normal 120VAC in a normal supervisory mode for a period of 60 hours with 10 minutes of alarm operation at the end of this period. The system shall automatically transfer to the standby batteries upon power failure. Provide automatic battery charging and recharging operation.
 - 3. Provide circuits requiring system operating power at 24VDC and provide each circuit with individual fusing at the control panel.

1.3 SUBMITTALS

- A. Submit complete sets of fire alarm shop drawings including wiring, calculations and product data in accordance with Division 1 specifications.
- B. A maximum of two submittal reviews will be performed by the Consulting Engineer and/or University Representative. Compensate additional time and material to the Consulting Engineer and/or University Representative based on their published fees for any additional reviews.
- C. Equipment submittals must include the following:
 - 1. Complete descriptive data (cut sheets and operation and maintenance manuals) including UL listing, FM approval (for the specified application) for all system components.
 - 2. Complete system wiring connection diagrams, wiring connection details (shop drawings).

3. Indicate on floor plans device zone number and notification appliance circuit number.
 4. Show floor plans point to point wiring indicating the number, the gauge of the conductors and size of conduit/raceway used.
 5. Show a detailed riser diagram.
 6. Show an equipment block diagram indicating the number and gauge of the conductors used plus 20 percent spares.
 7. Show wiring connection details for components being connected to the system and interface to associated equipment.
 8. Provide control panel layout, battery calculations and graphs, voltage drop calculations (for each signaling circuit, door hold open/closer circuit indicating conductor run length and size). 10 percent voltage drop maximum.
 9. Show on floor plans symbol key with device catalog number, description, dimensions, back box size and mounting requirements.
 10. Complete sequence of operation.
 11. Indicate system components, size of components and location.
- D. Submit manufacturer's installation instructions.
- E. Submit manufacturer's descriptive literature, operating instructions and maintenance and repair data.
- F. Submit, prior to final acceptance, a letter confirming that inspections have been completed and the system is installed and functioning in accordance with the Specifications. Include manufacturer representative's certification of installation and letter of warranty.
- G. Operation and Maintenance Manuals: Provide manuals containing professional developed Record Drawings, battery type and battery calculations, spare parts list, operating procedures, troubleshooting guide, program printout, data file on disk and a 1 year warranty agreement including parts and labor. Warranty period begins upon the date of final acceptance.

1.4 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies:
1. Installation subject to inspection and approval of federal, state and local authorities.
 2. Equipment shall be UL listed and FM approved.
- B. Reference Standards:
1. NFPA 72 – 2013 Edition.
 2. CEC – 2013 Edition.
 3. California Building Code 2013
 4. NFPA 90A - Adopted Edition.
 5. UL UOJZ Listing.
 6. UL 1076 For Security.
 7. CFC - 2013 Edition.
 8. 2013 California Mechanical Code.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Gamewell-FCI, Honeywell Fire Systems, 12 Clintonville Road, Northford, Connecticut 06472. Phone (203) 484-7161. Fax (203) 484-7118. Website: www.gamewell-fci.com.
- B. References to manufacturer's model numbers and other information is intended to establish minimum standards of performance, function, and quality. Equivalent equipment from Gamewell may be substituted for the specified equipment, as long as minimum standards are met. No other manufacturers, other than Gamewell-FCI, FCI, and Gamewell will be considered for use on this project.
- C. Substitute equipment proposed as equal to equipment specified shall meet or exceed requirements of this section. For equipment other than Gamewell-FCI E3 Series Expandable Emergency Evacuation Fire Alarm System, provide proof that such substitute equipment equals or exceeds features, functions, performance, and quality of specified equipment. This proof shall be provided by submission of a copy of specification with each copy of the submittals that has had each paragraph marked as either compliant or non-compliant along with a letter from engineering manager or product manager at factory that certifies information presented as either compliant or non-compliant including a detailed explanation of each paragraph identified as non-compliant. In order to ensure that the Owner is provided with a system that incorporates required survivability features, this letter shall also specifically certify that the system is capable of complying with the test requirements of this section.

2.2 DISTRIBUTED NETWORKED FIRE ALARM SYSTEM

- A. Distributed Networked Fire Alarm System: Gamewell-FCI E3 Series Expandable Emergency Evacuation Fire Alarm System.

2.3 CONTROL PANEL HARDWARE

- A. Intelligent Control Panel: Supply user interface, including LCD or touch-screen 1/4 VGA display Intelligent Loop Interface Modules (ILI-MB-E3), manual switching, Control Panel shall consist of the following units and components:
 - 1. System Cabinet (B-, C-, or D-Size Cabinet) with associated inner door.
 - 2. Power Supply Module (PM-9) with batteries.
 - 3. 80-Character LCD Display (LCD-E3).
 - 4. Intelligent Loop Main Board Interface (ILI-MB-E3).
 - 5. Optional Intelligent Loop Supplemental Interface (ILI-S-E3).
 - 6. Optional DACT (DACT-E3).
 - 7. Optional Network Repeater (RPT-E3).
 - 8. Optional 1/4 VGA touch-screen display (NGA).
 - 9. Optional Auxiliary Switch Module (ASM-16).
- B. System Cabinet:
 - 1. Surface or semi-flush mounted with texture finish.
 - 2. Consist of back box, inner door, and door.
 - 3. Available in at least 3 sizes to best fit project configuration.
 - 4. Houses 1 or more PM-9 Power Supply Modules, 1 or more ILI-MB-E3 or ILI-S-E3 assemblies, and other optional modules as specified.
 - 5. Construction: Dead-front steel construction with inner door to conceal internal circuitry and wiring.
 - 6. Wiring: Terminated on removable terminal blocks to allow field servicing of modules without disrupting system wiring.

- C. Power Supply Module (PM-9): Use latest technologies to provide power to the Control Panel and incorporate the following features:
1. Power-saving switching technology using no step-down transformers.
 2. 9-amp continuous-rated output to supply up to all power necessary under normal and emergency conditions.
 3. Integral battery charger with capacity to charge up to 55 amp-hour batteries while under full load.
- D. Batteries:
1. Sufficient capacity to provide power for entire system upon loss of normal AC power for a period of 24 hours with 15 minutes of alarm signaling at end of this 24-hour period, as required by NFPA 72, Local Systems.
- E. LCD Display Module (LCD-E3):
1. LCD Display: 80-character RS-485 based textual annunciator with capability of being mounted locally or remotely. Provides audible and visual annunciation of all alarms and trouble signals. Provide dedicated LEDs for:
 - a. AC Power On: Green.
 - b. Alarm: Red.
 - c. Supervisory: Yellow.
 - d. System Trouble: Yellow.
 - e. Power Fault: Yellow.
 - f. Ground Fault: Yellow.
 - g. System Silenced: Yellow.
 2. 80-Character Alphanumeric Display: Provide status of all analog/addressable sensors, monitor and control modules. Display shall be liquid crystal type (LCD), clearly visible in dark and under all light conditions.
 3. Panel shall contain 4 functional keys:
 - a. Alarm Acknowledge.
 - b. Trouble Acknowledge.
 - c. Signal Silence.
 - d. System Reset/Lamp Test.
 4. Panel shall contain 3 configuration buttons:
 - a. Menu/Back.
 - b. Back Space/Edit.
 - c. OK/Enter.
 5. Panel shall have 12-key telephone-style keypad to permit selection of functions.
- F. Intelligent Loop Interface (ILI-MB-E3): System shall be of multiprocessor design to allow maximum flexibility of capabilities and operation. Intelligent Loop Interface shall be capable of mounting in stand-alone enclosure as specified.
1. Field Programmable: System shall be capable of being programmed by Field Configuration Program (FCP), allowing programming to be downloaded via portable computer from any node on network.
 2. RS-232C Serial Output: Supervised RS-232C serial port shall be provided to operate remote printers and/or video terminals, accept downloaded program from portable computer, or provide 80-column readout of all alarms, troubles, location descriptions, time, and date. Communication shall be standard ASCII code operating from 1,200 to 115,200 baud rate.
 3. RS-485 Serial Output: Each ILI-MB-E3 shall incorporate RS-485 bus via ribbon harness for connection of modules inside same cabinet, and via 4-wire quick connector for connection of modules up to 3,000 feet from cabinet. Each ILI-MB-E3's RS-485 bus shall support up to 16 ASM-16 auxiliary switch modules, 6 LCD-E3 main annunciators, and 5 LCD-7100 annunciators.
 4. Peer-to-Peer Panel Configuration: All Loop Interface Modules shall incorporate own programming, log functions, Central Processor Unit, and control-by-event (CBE)

- programming. If any loop driver becomes disabled, each remaining loop driver shall continue to communicate with remainder of network and maintain normal operation.
5. Control-by-Event (CBE) Program: ILI-MB-E3 shall be capable of programming using Boolean logic including AND, OR, NOT, and TIMING functions to provide complete programming flexibility.
 6. Alarm Verification: Smoke detector alarm verification shall be standard option while allowing other devices such as manual stations and sprinkler flow to create immediate alarm. This feature shall be selectable for smoke sensors that are installed in environments prone to nuisance or unwanted alarms.
 7. Alarm Signals: All alarm signals shall be automatically latched or “locked in” at control panel until operated device is returned to normal and control panel is manually reset. When used for sprinkler flow, “SIGNAL SILENCE” switch may be bypassed, if required by AHJ.
 8. Electrically Supervised:
 - a. Each SLC and NAC circuit shall be electrically supervised for opens, shorts, and ground faults. Occurrence of fault shall activate system trouble circuitry, but shall not interfere with proper operation of other circuits.
 - b. Yellow “SYSTEM TROUBLE” LEDs shall light and system audible sounder shall steadily sound when trouble is detected in system. Failure of power, open or short circuits on SLC or NAC circuits, disarrangement in system wiring, failure of microprocessor or any identification module, or system ground faults shall activate this trouble circuit. Trouble signal shall be acknowledged by operating “TROUBLE ACKNOWLEDGE” switch. This shall silence sounder. If subsequent trouble conditions occur, trouble circuitry shall resound. During alarm, all trouble signals shall be suppressed with exception of lighting yellow “SYSTEM TROUBLE” LEDs.
 9. Drift Compensation – Analog Smoke Sensors: System software shall automatically adjust each analog smoke sensor approximately once each week for changes in sensitivity due to effects of component aging or environment, including dust. Each sensor shall maintain its actual sensitivity under adverse conditions to respond to alarm conditions while ignoring factors which generally contribute to nuisance alarms. System trouble circuitry shall activate, display units that requires maintenance.
 10. Analog Smoke Sensor Test: System software shall automatically test each analog smoke sensor a minimum of 3 times daily. Test shall be recognized functional test of each photocell (analog photoelectric sensors) and ionization chamber (analog ionization sensors) as required annually by NFPA 72. Failure of sensor shall activate system trouble circuitry, display “Test Failed” indication, and identify individual device that failed.
 11. Off-Premises Connection:
 - a. Fire Alarm System: Connect via Digital Alarm Communicator Transmitter (DACT) and telephone lines to central station or remote station. Panel shall contain disconnect switch to allow testing of system without notifying fire department.
 12. Central Station Option: Fire alarm control panel shall provide Digital Alarm Communicator Transmitter (DACT) for signaling to central station. DACT shall contain “Dialer-Runaway” feature preventing unnecessary transmissions as result of intermittent faults in system and shall be Carrier Access Code (CAC) compliant, accepting up to 20-digit central station telephone numbers. Fire department shall be consulted as to authorized central station companies serving municipality. Fire alarm system shall transmit both alarm and trouble signals, with alarm having priority over trouble signal. Contractor shall be responsible for all installation charges and Owner will be responsible for line lease charges.
 13. Network Annunciator Option: Each ILI-MB-E3 and associated display shall provide option of being configured as network annunciator. Options for annunciation shall default as regional annunciator with capability of selecting global annunciation to provide system-wide protection and Acknowledge, Silence, and Reset capabilities.
 14. Redundant History Log: Each ILI-MB-E3 shall contain full 4100 event history log supporting local and network functions. If a main processor or network node is lost the entire log shall be accessible at any other Loop Interface board. This shall be

- demonstrated by removing power from Command Center followed by extraction of history log from any loop driver location, including Command Center or Transponder.
15. LEDs Indicator and Outputs: Each ILI-MB-E3 Loop Interface shall incorporate as a minimum the following diagnostic LED indicators:
 - a. Power: Green.
 - b. Alarm: Red.
 - c. Supervisory: Yellow.
 - d. General Trouble: Yellow.
 - e. Ground Fault: Yellow.
 - f. Transmit: Green.
 - g. Receive: Green.
 16. Auxiliary Power Outputs: Each ILI-MB-E3 Loop Interface shall provide the following supply outputs:
 - a. 24 VDC non-resettable, 1 amp. maximum, power limited.
 - b. 24 VDC resettable, 1 amp. maximum, power limited.
 17. Microprocessor: Loop interface shall incorporate 32-bit RISC processor. Isolated "watchdog" circuit shall monitor microprocessor and upon failure shall activate system trouble circuits on display. Microprocessor shall access system program for all control-by-event (CBE) functions. System program shall not be lost upon failure of both primary and secondary power. Programming shall support Boolean logic including AND, OR, NOT, TIME DELAY functions for maximum flexibility.
 18. Auto Programming: System shall provide for all SLC devices on any SLC loop to be pre-programmed into system. Upon activation of auto programming, only devices that are present shall activate. This allows for system to be commissioned in phases without need of additional downloads.
 19. Environmental Drift Compensation: System shall provide for setting Environmental Drift Compensation by device. When detector accumulates dust in chamber and reaches unacceptable level but yet still below allowed limit, control panel shall indicate maintenance alert warning. When detector accumulates dust in chamber above allowed limit, control panel shall indicate maintenance urgent warning.
 20. NON-FIRE Alarm Module Reporting: Non-reporting type ID shall be available for use for energy management or other non-fire situations. NON-FIRE point operation shall not affect control panel operation nor shall it display message at panel LDC. Activation of NON-FIRE point shall activate control by event logic, but shall not cause indication on control panel.
 21. 1-Man Walk Test:
 - a. System shall provide both basic and advanced walk test for testing entire fire alarm system. Basic walk test shall allow single operator to run audible tests on panel. All logic equation automation shall be suspended during test and while annunciators can be enabled for test, all shall default to disabled state. During advanced walk test, field-supplied output point programming shall react to input stimuli, such as CBE and logic equations. When points are activated in advanced test mode, each initiating event shall latch input. Advanced test shall be audible and shall be used for pull station verification, magnet activated tests on input devices, input and output device, and wiring operation/verification.
 - b. Test feature is intended to provide for certain random spot testing of system and is not intended to comply with requirements of testing fire alarm systems in accordance with NFPA 72, as it is impossible to test all functions and verify items such as annunciation with only 1 person.
 22. Signaling Line Circuits: Each ILI-MB-E3 module shall provide communication with analog/addressable (initiation/control) devices via 2 signaling line circuits. Each signaling line circuit shall be capable of being wired Class B, Style 4 or Class A, Style 6. Circuits shall be capable of operating in NFPA Style 7 configuration when equipped with isolator modules between each module type device and isolator sensor bases. Each circuit shall communicate with a maximum of 159 analog sensors and 159 addressable monitor/control devices. Unique 40-character identifier shall be available for each device.

- Devices shall be of the Velocity series with capability to poll 10 devices at a time with a maximum polling time of 2 seconds when both SLCs are fully loaded.
23. Notification Appliance Circuits: 2 independent NAC circuits shall be provided on ILI-MB, polarized and rated at 2 amperes DC per circuit, individually over current protected and supervised for opens, grounds, and short circuits. They shall be capable of being wired Class B, Style Y or Class A, Style Z.
 24. Alarm Dry Contacts: Provide alarm dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system alarm occurs.
 25. Supervisory Dry Contacts: Provide supervisory dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system supervisory condition occurs.
 26. Trouble Dry Contacts: Provide trouble dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system trouble occurs.
- G. Auxiliary Switch Module (ASM-16):
1. Each ASM-16 has 16 programmable push-button switches.
 2. Each push-button switch has 3 associated status LEDs (red, yellow, and green), configurable to indicate any combination of functions.
 3. Flexible switch configurations to allow auxiliary functions.
 4. An insertable label to identify function of each switch and LEDs combination.
 5. Provide capability to communicate with up to 16 ASM-16 modules locally, or up to 3,000 feet from the Control Panel
- H. Network Repeater Module RPT-E3:
1. Intelligent Network Interface shall provide interconnection and protection of remote Control Panels. Repeater shall regenerate and condition token passing, 625 K baud signal between units. Repeater shall be available in wire, fiber, or wire/fiber configurations as determined by field conditions.
 2. Fiber configurations shall use "ST"-type connectors and be able to operate with up to 200-micron multi-mode fiber, but optimize for 62.5/125. Interface shall have jumper to allow selection of ground detection of wiring when used in wire mode. Interface shall have integral LEDs to display current status of board.
- I. Network Graphic Annunciator (NGA): Networked, 1/4 VGA, touch-screen annunciator with the following characteristics:
1. Custom Graphics: Panel shall permit uploading of custom bit-mapped graphic to display screen. Graphic shall display when all systems are normal.
 2. Intuitive Functions: In alarm or trouble condition, annunciator shall display only information pertaining to event, including control switches.
 - a. Trouble Condition: Display shall indicate cause of trouble. Only controls available to operator shall be Acknowledge and Reset functions.
 - b. Alarm Condition: Display shall indicate cause of alarm. Only controls available to operator shall be Acknowledge, Silence, and Reset functions.

2.4 SUPPLEMENTAL NOTIFICATION APPLIANCE CIRCUIT (HPF24)

- A. Supplemental Notification Appliance Circuit (HPF24) shall be Model HPF24S6 offering up to 6.0 amps (4.0 amps continuous) of regulated 24-volt power. HPF24 shall include the following features:
1. Integral Charger: Charge up to 18.0 amp-hour batteries and support 60-hour standby.
 2. 2 Input Triggers. Input trigger shall be Notification Appliance Circuit (from fire alarm control panel) or relay.
 3. Surface-mount back box.
 4. Ability to delay AC fail delay in accordance with applicable NFPA requirements.
 5. Power limited circuitry in accordance with applicable UL standards.
 6. Operates as sync follower or a sync generator

2.5 SYSTEM PERIPHERALS

- A. Addressable Devices – General:
1. Provide address-setting means using rotary-decimal switches.
 2. Use simple to install and maintain decade-type (numbered 0 to 15) address switches by using standard screwdriver to rotate 2 dials on device to set address. Devices which use binary address set via dipswitch packages, handheld device programmer, or other special tools for setting device address shall not be acceptable.
 3. Detectors: Analog and addressable. Connect to fire alarm control panel's Signaling Line Circuits.
 4. Addressable Thermal and Smoke Detectors: Provide 2 status LEDs. Both LEDs shall flash under normal conditions, indicating detector is operational and in regular communication with control panel, and both LEDs shall be placed into steady illumination by control panel, indicating alarm condition has been detected. If required, flashing mode operation of detector LEDs can be programmed off via fire control panel program.
 5. Fire Alarm Control Panel: Permit detector sensitivity adjustment through field programming of system. Sensitivity can be automatically adjusted by panel on time-of-day basis.
 6. Using software, detectors shall automatically compensate for dust accumulation and other slow environmental changes that may affect their performance. Detectors shall be listed by UL as meeting calibrated sensitivity test requirements of NFPA 72, Chapter 7.
 7. Detectors shall be ceiling-mounted and shall include separate twist-lock base with tamper-proof feature.
 8. Following bases and auxiliary functions shall be available:
 - a. Standard base with remote LED output.
 - b. Sounder base rated at 85 dBA minimum.
 - c. Form-C relay base rated 30 VDC, 2.0 A.
 - d. Isolator base.
 9. Detectors shall provide test means whereby they will simulate alarm condition and report that condition to control panel. Such test shall be initiated at detector itself by activating magnetic switch or initiated remotely on command from control panel.
 10. Detectors shall store internal identifying type code that control panel shall use to identify type of device (ION, PHOTO, THERMAL).
- B. Addressable Manual Stations (MS-7AF):
1. Manual Fire Alarm Stations: Non-code, non-break glass type, equipped with key lock so they may be tested without operating handle.
 2. Operated Station: Visually apparent, as operated, at a minimum distance of 100 feet (30.5 m) from front or side.
 3. Stations shall be designed so after actual activation, they cannot be restored to normal except by key reset.
 4. Manual stations shall be constructed of Lexan with clearly visible operating instructions provided on cover. The word FIRE shall appear on front of stations in raised letters, 1.75 inches (44 mm) or larger.
 5. Addressable manual stations shall, on command from control panel, send data to panel representing state of manual switch and addressable communication module status.
 6. Manual fire alarm boxes shall comply with CBC Sections 907.4.2, 1117B.6 and 1118B.
- C. Intelligent Thermal Detectors (ATD-RL2F): Intelligent addressable devices rated at 135 degrees F (58 degrees C) and have rate-of-rise element rated at 15 degrees F (9.4 degrees C) per minute. Connect via 2 wires to fire alarm control panel signaling line circuit.
- D. Intelligent Photoelectric Smoke Detectors (ASD-PL2F): Use photoelectric (light-scattering) principal to measure smoke density and shall, on command from control panel, send data to panel representing analog level of smoke density.

- E. Intelligent Ionization Smoke Detectors (ASD-IL2F): Use dual-chamber ionization principal to measure products of combustion and shall, on command from control panel, send data to panel representing analog level of products of combustion.
- F. Intelligent Multi-Criteria Acclimating Detectors (MCS-ACCLIMATE2F):
1. Addressable device designed to monitor a minimum of photoelectric and thermal technologies in single-sensing device. Include ability to adapt to its environment by utilizing built-in microprocessor to determine its environment and choose appropriate sensing settings. Allow wide sensitivity window, with no less than 1 to 4 percent per foot obscuration. Utilize advanced electronics that react to slow smoldering fires and thermal properties within single sensing device.
 2. Microprocessor: Capable of selecting appropriate sensitivity levels based on environment type it is in, such as office, manufacturing, or kitchen, and then have ability to automatically change setting as environment changes, as when walls are moved or as occupancy changes.
 3. Intelligent multi-criteria detection device shall include ability to combine signal of thermal sensor with signal of photoelectric signal to react hastily in event of fire situation. Include inherent ability to distinguish between fire condition and false alarm condition by examining characteristics of thermal and smoke sensing chambers and comparing them to database of actual fire and deceptive phenomena.
- G. Intelligent Laser Detectors (ASD-LS): Sensor device designed to use laser diode similar to way photoelectric sensor uses LEDs inside of sensing chamber. Detector design shall allow wide sensitivity window, with no less than 0.2 to 4 percent per foot obscuration. Detector shall be used as indicated in special application clean-room-type environments only.
- H. Intelligent Duct Smoke Detectors (ADPF):
1. In-Duct Smoke Detector Housing: Use on-board intelligent photoelectric detector, which provides continuous analog monitoring and alarm verification from panel.
 2. When sufficient smoke is sensed, alarm signal is initiated, and appropriate action taken to shut down or change over air handling systems to help prevent rapid distribution of toxic smoke and fire gases throughout areas served by duct system.
 3. Duct Smoke Detectors Mounted Above Ceiling or Otherwise Obstructed from Normal View: Provide with remote alarm indicator.
 4. Each Detector: Install in either supply side or return side duct in accordance with local mechanical code.
- I. Addressable Dry Contact Monitor Modules (AMM-2F):
1. Provide to connect 1 supervised IDC zone of conventional alarm initiating devices (any N.O. dry contact device) to 1 of the fire alarm control panel SLCs.
 2. Mount in standard deep electrical box.
 3. IDC Zone: Suitable for Style B operation.
- J. Addressable Dry Contact Monitor Modules (AMM-4F):
1. Provide to connect 1 supervised IDC zone of conventional alarm initiating devices (any N.O. dry contact device) to 1 of the fire alarm control panel SLCs.
 2. Mount in 4-inch (102-mm) square, 2-1/8-inch (54-mm) deep electrical box.
 3. IDC Zone: Suitable for Style D or Style B operation.
 4. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- K. Addressable Dry Contact Monitor Modules (AMM-2IF):
1. Provide to connect 2 supervised IDC zones of conventional alarm initiating devices (any N.O. dry contact device) to 1 of the fire alarm control panel SLCs.
 2. Mount in 4-inch (101.6-mm) square, 2-1/8-inch (54-mm) deep electrical box.
 3. IDC Zones: Suitable for Style B operation.

4. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- L. Addressable Dry Contact Monitor Modules (MMI-10F):
1. Provide to connect 10 supervised Style B IDC zones or 5 supervised Style D IDC zones of conventional alarm initiating devices (any N.O. dry contact device) to 1 of the fire alarm control panel SLCs.
 2. Mount in factory-supplied MBB-2 or MBB-6 enclosure.
 3. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- M. 2-Wire Detector Monitor Modules (AMM-4SF):
1. Provided to connect 1 supervised IDC zone of conventional 2-wire smoke detectors or alarm initiating devices (any N.O. dry contact device).
 2. Mount in 4-inch (101.6-mm) square, 2-1/8-inch (54-mm) deep electrical box or to optional surface-mounted back box.
 3. IDC Zone: Wired for Class A or B (Style D or Style B) operation.
 4. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- N. 2-Wire Detector Monitor Modules (MMI-6SF):
1. Provided to connect 6 supervised Class B IDC zones of conventional 2-wire smoke detectors or alarm initiating devices (any N.O. dry contact device).
 2. Mount in factory-supplied MBB-2 or MBB-6 enclosure.
 3. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- O. Addressable Control Modules (AOM-2SF):
1. Provide to supervise and control operation of 1 conventional NAC of compatible, 24-VDC powered, polarized audio/visual notification appliances or UL-listed polarized relays for fan shutdown and other auxiliary control functions.
 2. Mount in standard 4-inch (101.6-mm) square, 2-1/8-inch (54-mm) deep electrical box or to surface-mounted back box.
 3. Control Module NAC: Wire for Style Z or Style Y (Class A/B) with up to 1 amp of inductive signal or 2 amps of resistive signal operation. Relay coil shall be magnetically latched to reduce wiring connection requirements and to ensure 100 percent of all auxiliary relay or NACs shall be energized at same time on same pair of wires.
 4. Audio/Visual Power: Provide by separate supervised power circuit from main fire alarm control panel or from supervised, UL-listed remote power supply.
- P. Addressable Control Modules (MMO-6SF):
1. Provide to supervise and control operation of 1 conventional NAC of compatible, 24-VDC powered, polarized audio/visual notification appliances or UL-listed polarized relays for fan shutdown and other auxiliary control functions.
 2. Mount in factory-supplied MBB-2 or MBB-6 enclosure.
 3. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
 4. Control module NAC: Wire for Style Z or Style Y (Class A/B) with up to 1 amp of inductive signal or 2 amps of resistive signal operation. Relay coil shall be magnetically latched to reduce wiring connection requirements and to ensure 100 percent of all auxiliary relay or NACs shall be energized at same time on same pair of wires.
 5. Audio/Visual Power: Provide by separate supervised power circuit from main fire alarm control panel or from supervised, UL-listed remote power supply.
- Q. Addressable Relay Modules (AOM-2RF):

1. Available for HVAC control and other building functions. Relay shall have 2 Form C sets of contacts that operate in tandem and are rated for a minimum of 2.0 amps resistive or 1.0 amps inductive. Relay coil shall be magnetically latched to reduce wiring connection requirements and to ensure 100 percent of all auxiliary relay or NACs shall be energized at same time on same pair of wires.
 2. Mount in standard 4-inch (101.6-mm) square, 2-1/8-inch (54-mm) deep electrical box or to surface-mounted back box.
- R. Addressable Relay Modules (MMO-6RF):
1. Available for HVAC control and other building functions. Relay shall be Form C and rated for a minimum of 2.0 amps resistive or 1.0 amps inductive. Relay coil shall be magnetically latched to reduce wiring connection requirements and to ensure 100 percent of all auxiliary relay or NACs shall be energized at same time on same pair of wires.
 2. Mount in factory-supplied MBB-2 or MBB-6 enclosure.
 3. LEDs: Flash under normal conditions, indicating monitor module is operational and in regular communication with control panel.
- S. Isolator Modules (M500X):
1. Provide to automatically isolate wire-to-wire short circuits on SLC Class A or Class B branch. Isolator module shall limit number of modules or detectors that may be rendered inoperative by short-circuit fault on SLC loop segment or branch. At least 1 isolator module shall be provided for each floor or protected zone of building. No more than 25 devices shall be connected to 1 isolator module.
 2. If wire-to-wire short occurs, isolator module shall automatically open-circuit (disconnect) SLC. When short-circuit condition is corrected, isolator module shall automatically reconnect isolated section.
 3. Does not require address-setting, and its operations shall be totally automatic. Not necessary to replace or reset isolator module after normal operation.
 4. Mount in standard 4-inch (101.6-mm) deep electrical box or in surface-mounted back box.
 5. Single LED: Flash to indicate isolator is operational and illuminate steadily to indicate short-circuit condition has been detected and isolated.
- T. Conventional Heat Detectors:
1. Combination rate-of-rise and fixed temperature rated at 135 degrees F (57.2 degrees C) for areas where ambient temperatures does not exceed 100 degrees F (37.7 degrees C), and 200 degrees F (93.3 degrees C) for areas where temperature does not exceed 150 degrees F (65.5 degrees C).
 2. Low profile, ceiling-mount type with positive indication of activation.
 3. Rate-of-Rise Element: Air chamber, flexible metal diaphragm, and factory-calibrated, moisture-proof, trouble-free vent, and operate when rate of temperature rise exceeds 15 degrees F (9.4 degrees C) per minute.
 4. Fixed-Temperature Element: Fusible-alloy retainer and actuator shaft.
 5. Smooth Ceiling Rating: 2,500 square feet (762 m²).
- U. Conventional Photoelectric Area Smoke Detectors:
1. 24-VDC, 2-wire, ceiling-mounted, light-scattering type using LEDs light source.
 2. Each Detector: Remote LEDs output and built-in test switch.
 3. Provide on twist-lock base.
 4. Perform calibrated sensitivity and performance test on detector without need for generation of smoke. Test method shall test all detector circuits.
 5. Visual Indication of Alarm: Provide by dual-latching LEDs on detector, seen from ground level over 360 degrees. LEDs shall flash every 10 seconds, indicating power is applied to detector.
 6. Detector shall not go into alarm or trouble when exposed to air velocities of up to 3,000 feet (914.4 m) per minute.

7. Detector Screen and Cover Assembly: Easily removable for field cleaning of detector chamber.
 8. Field-Wire Connections: Made to base through use of clamping plate and screw.
- V. Addressable Projected Beam Detectors (ABD-2F):
1. Single-ended, reflective design.
 2. Six user-selectable sensitivity levels.
 3. Operates in range from 16 feet to 328 feet.
 4. Temperature Range of Device: Minus 22 degrees F to 131 degrees F.
 5. Beam Detector: Automatic gain control to compensate for gradual signal deterioration from dirt accumulation on lenses.
 6. UL Listed.
 7. Ability to be tested using calibrated test filters or magnet-activated remote test station.
- W. Sprinkler Waterflow Switches (provided and installed by the sprinkler contractor):
1. Integral, mechanical, non-coded, non-accumulative retard type.
 2. Alarm transmission delay time conveniently adjustable from 0 to 60 seconds. Initial settings shall be 30 to 45 seconds.
 3. Single manufacturer and series.
 4. Where possible, locate waterflow switches a minimum of 1 foot from fitting which changes direction of flow and a minimum of 3 feet from valve.
 5. Waterflow switches shall be provided and connected under this section but installed by the mechanical contractor.
- X. Sprinkler and Standpipe Valve Supervisory Switches (provided and installed by the sprinkler contractor):
1. Each sprinkler system water supply control valve riser, zone control valve, and standpipe system riser control valve shall be equipped with supervisory switch. Standpipe hose valves, test valves, and drain valves shall not be equipped with supervisory switches.
 2. PIV (Post Indicator Valve) or Main Gate Valves: Equip with supervisory switch.
 3. Mount not to interfere with normal operation of valve and adjust to operate within 2 revolutions toward closed position of valve control, or when stem has moved no more than one-fifth of distance from normal position.
 4. Contain in weatherproof aluminum housing, which shall provide 3/4-inch (19-mm) conduit entrance and incorporate necessary facilities for attachment to valves.
 5. Switch Housing Finish: Red baked enamel.
 6. Entire Installed Assembly: Tamper proof and arranged to cause switch operation if housing cover is removed or if unit is removed from mounting.
 7. Valve supervisory switches shall be provided and connected under this section and installed by mechanical contractor.
 8. LCD Display Annunciator:
 9. Furnish and install as indicated on the Drawings a remote serial annunciator, Model LCD-7100. Annunciator shall provide 80-character display, which shall duplicate all information on basic system display, including any network nodes its host panel is annunciating, with exception of menus. Contain the following function keys:
 - a. Alarm Acknowledge.
 - b. Trouble Acknowledge.
 - c. Signal Silence.
 - d. System Reset/Lamp Test.
 - e. System Drill Test.
 10. Key Lock: Enable switches only when placed in "ON" position, with exception of Trouble Acknowledge, which is used to silence local trouble audible sounder. Annunciator shall contain the following LEDs:
 - a. Alarm.
 - b. Supervisory.
 - c. System Trouble.

- a. Power Fault.
 - b. System Silenced.
 - 1. Mount on standard 3-gang surface or flush electrical box.
 - 2. Each ILI-MB-E3: Accommodate up to 5 remote LCD-7100 annunciators which shall be located up to 3,000 feet from control panel.
- Y. Horns:
- 1. Operate on 24 VDC or with field-selectable outputs.
 - 2. Have two selectable tone options of temporal 3 and non-temporal continuous pattern.
 - 3. Have at least 2 audibility options
- Z. Strobes:
- 1. Compliance: ADA and UL 1971.
 - 2. Maximum Pulse Duration: 0.2 second.
 - 3. Strobe Intensity: UL 1971.
 - 4. Flash Rate: UL 1971.
 - 5. Strobe Candela Rating: Determine by positioning selector switch on back of device.
- AA. Horn/Strobes:
- 1. Operate on 24 VDC
 - 2. Have two selectable tone options of temporal 3 and non-temporal continuous pattern.
 - 3. Have at least 2 audibility options
 - 4. Maximum Pulse Duration: 0.2 second.
 - 5. Strobe Intensity: UL 1971.
 - 6. Flash Rate: UL 1971.
 - 7. Strobe Candela Rating: Determine by positioning selector switch on back of device.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Fire alarm conductor terminations in control panel and annunciator panels on terminal strips with separate point for each conductor number. Such strips identified as shown in wiring diagram attached to inside of door of control panel. Connect wiring neatly to terminal strips. Connect clip with nylon cable straps. Set up termination of cabling so that sections of the system may be isolated or shorted out for servicing. Maximum of two conductors under each terminal strip connection.
- B. From fire alarm control panel, make connection to motor controls and related equipment as required for fan system control. All relays shall be UL listed for the purpose used.
- C. Wiring:
 - 1. In accordance with manufacturer's instructions and as required by authorities, provide wiring, conduit and outlet boxes required for the erection of a complete system as described herein and as required by AHJ.
 - 2. Provide wiring to meet the requirements of national, state and local electrical codes. Provide color coded wiring as recommended and specified by the fire alarm and detection system manufacturer. Minimum wire size No. 14 or as approved by the Project Manager. Test wiring free from ground faults and short circuits.
 - 3. Provide Type FPL power-limited fire alarm cable when run in Wiremold (surface), Type FPLR power-limited fire alarm cable when run is from floor to floor or in a vertical run in a shaft (install metal raceways or rigid non metallic conduit where

- passing through a floor to a height of 7 feet above the floor) and Type FPLP power-limited cable when wiring is in ducts or plenum space.
4. Provide final connections between equipment and the wiring system approved by manufacturer.
 5. At junction boxes and termination points, provide identification tags on wires and cables.
- D. Duct-Mounted Smoke Detectors:
1. Provide duct detectors on air systems with air quantities of 2000 cfm or more.
 2. Install duct detector(s) on supply side of air duct.
 3. Provide control wiring from auxiliary contacts of duct detector to air handling equipment controller. Connect to controller so that when duct detector is activated the air handling equipment is shut down.
 4. Provide duct detectors rated for air velocity and temperature of duct. Verify quantities, locations, and requirements with Drawings.
 5. Where duct detectors are mounted in inaccessible building void spaces provide access hatch. Provide access hatch with fire rating equivalent to rating of wall, ceiling, or shaft being penetrated.
- E. Fire/Smoke Dampers:
1. Provide signal and complete connection to fire/smoke dampers.
 2. Verify quantities, location and requirements with plans.

3.2 FIELD QUALITY CONTROL

- A. Upon completion of the installation, subject the system to operational tests and when necessary corrections have been accomplished, advise the Project Manager who will schedule a final inspection test with University representative. Ensure the connections to the fire alarm system have been in service for at least 10 days of trouble/alarm free operation prior to the final inspection. Furnish instruments, labor and materials required for the tests and a qualified technician to conduct the tests. Correct any deficiencies found at no cost and retest system as necessary, prior to final acceptance. Tests include the following:
1. An operation of each signal initiating device (smoke detectors, heat detectors, pull stations, fire/smoke rated doors, process and facilities control sequences).
 2. An operation of each indicating device (alarm horn and alarm strobe).
 3. Operation of all features of the system under normal operation.
 4. Operation of all supervisory features of the system.
 5. Operation of all features of the systems on standby power with primary power off.
 6. Documentation by download of control panel memory.
- B. Upon completion of the installation of fire alarm equipment, provide to Project Manager a signed, written statement substantially in the form as follows: "The undersigned having been engaged as the contractor on the facility confirms that the fire alarm equipment was installed in accordance with the Design Drawings, Specifications, wiring diagrams, instructions, directions provided by manufacturer, and requirements of the governing authorities."

3.3 WARRANTY AND MAINTENANCE

- A. Spare Parts
1. Spare Parts - Fire
 - a. The Contractor shall supply the following spare parts:
 - b. Automatic detection devices - Two (2) percent of the installed quantity of each type.

- c. Manual fire alarm stations - Two (2) percent of the installed quantity of each type.
 - d. Audible and visible devices - One (1) percent of the installed quantity of each type, but no less than two (2) devices.
 - e. Keys - A minimum of three (3) sets of keys shall be provided and appropriately identified.
- B. Warranty
- 1. The contractor shall warranty all materials, installation and workmanship for one (1) year from date of acceptance, unless otherwise specified. A copy of the manufacturer's warranty shall be provided with close-out documentation and included with the operation and installation manuals.
 - 2. The System Supplier shall maintain a service organization with adequate spare parts stock within 75 miles of the installation. Any defects that render the system inoperative shall be repaired within 24 hours of the owner notifying the contractor.

3.4 EQUIPMENT DEMONSTRATION AND PERSONNEL TRAINING

- A. At the direction of the Project Manager, the equipment supplier of the system will provide factory trained representative to demonstrate the operation of the fire alarm system equipment and to instruct University's personnel in its operation. Provide names and date of instruction prior to final acceptance.

3.5 OPERATION AND MAINTENANCE MANUALS

- A. Provide three sets of manuals to the Project Manager prior to final acceptance. Provide manuals containing professional developed Record Drawings, battery type and battery calculations, spare parts list, operating procedures, troubleshooting guide, program printout, data file on disk and a 1 year warranty agreement including parts and labor. Warranty period begins upon the date of final acceptance.

END OF SECTION

EXHIBIT F



Hazardous Material Remediation Specifications
San Bernardino Valley College – Planetarium and Liberal Arts Building
Fire/Life Safety Project
701 Mount Vernon Avenue, San Bernardino, CA

Prepared for:

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SECTION 13280 - HAZARDOUS MATERIALS REMOVALS

PART 1 - GENERAL

1.1 PROJECT SITE

- A. The project site is identified as the Planetarium and the Liberal Arts Building on the campus of San Bernardino Valley College, located at 701 Mount Vernon Avenue in San Bernardino, California. Work areas shall include areas where hazardous materials are to be impacted, as outlined in Tables 1 and 2, located in Article 1.2.G, below.

1.2 SCOPE OF WORK

- A. The goal for this project is the upgrade of the Fire/Life Safety systems within the two subject buildings, as further expressed in the Project Drawings and Specifications. All hazardous materials which will be impacted during the modernization in the subject building are to be removed as part of the modernization project.
- B. All removal and disturbance of asbestos-containing materials shall be performed by an asbestos abatement contractor, using 32-hour asbestos certified workers (Asbestos Worker trained as outlined in 40 CFR 763). Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of asbestos abatement, handling and disposal of asbestos-containing and/or asbestos-contaminated materials, and the subsequent cleaning of contaminated areas, including, at a minimum, Competent Person/Contractor Supervisor training as outlined in 40 CFR 763.
- C. All removal and disturbance of lead-based materials shall be performed by a state-licensed contractor who is also an EPA Lead-Safe Certified Firm under the USEPA's Renovation, Repair and Painting rule (RRP), as defined in 40 CFR 745, and using an RRP Certified Renovator and properly trained workers, or CDPH-certified workers, as appropriate, with at least one Certified Renovator or CDPH-certified Supervisor. All removal and disturbance of lead-containing materials (not meeting the definition of "lead-based", as defined in 8 CCR 1532.1), shall be performed by a state-licensed contractor, using lead-trained workers with certification of training meeting the requirements of 8 CCR 1532.1. Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of lead abatement, handling and disposal of lead-containing and/or lead-contaminated materials, and the subsequent cleaning of contaminated areas.
- D. When exposure monitoring of a particular lead-related task indicates that the permissible exposure limit (PEL) is or will be exceeded, the contractor shall use CDPH-certified lead workers to complete the task. Contractors performing work that disturbs any Lead-Containing Materials (LCM) must submit proof of negative exposure assessment (NEA) if personal protective equipment is not to be used.
- E. For Cal/OSHA compliance purposes, all other painted, varnished, and glazed surfaces identified in the Hazardous Materials Survey Report (see Attachment A) as lead-containing surface coatings (LCSCs) require that contractors performing activities that will disturb these surfaces/materials comply with the requirements of 8 CCR 1532.1. These surfaces were identified in the above-referenced report to have detectable levels of lead, at concentrations less than 0.7 mg/cm² lead (the LBP standard) by X-Ray fluorescence.
- F. Contractor shall utilize employees with HAZWOPER training, as outlined in 29 CFR 1910.120 and 8 CCR 5192, when handling all "other" hazardous materials, including fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and the like.

- G. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of asbestos, lead, and other hazardous materials), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the hazardous materials identified in the following table which are to be impacted by the modernization project scope:

Table 1 - Hazardous Materials Summary – Liberal Arts Building

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Fitting Insulation	Hard Pack Elbows and “T”	Room 129 and Boiler Room	Class I F ACM	N/A (See Note 1)
Vinyl Floor Tile & Mastic	12” Beige	Majority of Floor Two	Class I NF ACM	4 SF (See Note 2)
Ceramic Wall Tiles	Beige	Rooms 182, 183, 272 and 273 (restrooms)	Lead-Based Paint	See Note 3
Ceramic Wall Tiles	White	Rooms 133, 134, 231 and 232 (restrooms)	Lead-Based Paint	See Note 3
Fluorescent Lighting Tubes (Hg)		Lighting Throughout Building	UWR – Hg	See Note 4
Fluorescent Lighting Ballasts (PCB)		Lighting Throughout Building	UWR and PCBs	See Note 4
Batteries (Pb/Acid and Ni/Cd)		Inside Emergency Exit Signs	UWR	See Note 4
Notes to Table 1:				
<ol style="list-style-type: none"> 1. This material appears to be in close proximity to project work. It is not called-out for removal as part of the project work, but if it is decided that the new installations cannot be affected without impacting the hard pack mechanical fitting (elbow) insulation, this material must be abated prior to work which would impact it. 2. This material is the most common flooring finish on Floor Two, and is also present in spots on Floor One. It appears that two riser locations may penetrate this material. The extent of impact to this material is likely to be only one or two square feet per location. 3. The ceramic wall tiles in all eight restrooms throughout the building are Lead-Based Paints, as defined by 8 CCR 1532.1, et al. The majority of work in the restrooms appears to be associated with the ceiling, but all impacts to the leaded wall tile, including not only removal but also penetrations of wall tile, must be performed as lead abatement work. 4. This item is listed for informational purposes, only, and is not expected to be impacted by project work. 				
See Table 2 for General Notes				

Table 2 - Hazardous Materials Summary – Planetarium

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Spray-Applied Acoustic Ceiling Material	Thick Texture, Beige	Rooms 102, 103, 202 and 203	Class I F ACM	80 SF (See Note 1)
Vinyl Floor Tile & Mastic	12” Beige with Brown Specks	Rooms 107 and 204	Class I NF ACM	2 SF (See Note 2)
Mastic Dots a/w 12” Acoustic Ceiling Tile	Brown Dots (beneath ceiling tile)	Rooms 106, 107, 110, 111, 112, 201 and 208	ACCM	90 SF (See Note 3)
There were no Lead-Based Paints identified for impacts within the Planetarium				

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Fluorescent Lighting Tubes (Hg)		Lighting Throughout Building	UWR – Hg	See Note 4
Fluorescent Lighting Ballasts (PCB)		Lighting Throughout Building	UWR and PCBs	See Note 4
Thermostats w/ Mercury Switches		Thermostats	UWR - Hg	See Note 4
Batteries (Pb/Acid and Ni/Cd)		Inside Emergency Exit Signs	UWR	See Note 4

Notes to Table 2:

1. This material has significant impacts, including installation of wiremold raceways and strobes in Rooms 102, 103 and installation of wiremold raceways in Room 202 and 203. It is recommended that the project consider wall-mounting the conduit/raceway, in these rooms, to avoid impact to the ACM acoustic ceiling material. All work that impacts the acoustic ceiling material is asbestos-related work, and must be performed in accordance with 8 CCR 1529.
2. This material is the floor covering in Rooms 107 and 204. It appears that there may be a riser penetration within Room 204, which is likely to impact one or two tiles.
3. Project design shows the acoustic ceiling tile being impacted in every room it is present except for Room 208. It is recommended that the project consider wall-mounting the conduit/raceway, as much as possible, in these rooms, to avoid impact to the ACM mastic beneath the acoustic ceiling tile. All work that impacts the acoustic ceiling tile is asbestos-related work, and must be performed in accordance with 8 CCR 1529.
4. This item is listed for informational purposes, only, and is not expected to be impacted by project work.

General Notes for Tables 1 and 2:

ACMs = Asbestos-containing materials, 1% or greater of asbestos by Polarized Light Microscopy (PLM), as defined by USEPA.

ACCMs = Asbestos-Containing Constructions Materials, containing asbestos at 0.1% or greater, but less than 1%, as defined by Cal/OSHA.

Lead-Based Paint = 1.00 milligrams per square centimeter (mg/cm²) of lead or greater is present, as defined by 17 California Code of Regulations (CCR) 35001-36100 and 8 CCR 1532.1.

UWR = Universal Waste Rule, as defined by California in 22 CCR 66261.9.

SF = Square feet

LF = Linear feet

Pb is the atomic symbol for Lead

Hg is the atomic symbol for Mercury

Ni is the atomic symbol for Nickel

Cd is the atomic symbol for Cadmium

F = Friable

NF = Non-Friable

¹ Order of Magnitude to be impacted. These are **ESTIMATED** Quantities and Locations **ARE NOT** to be used for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing **PRIOR** to bidding.

H. The Work includes the removal, transport, and disposal of the following contaminated Materials:

1. All hazardous materials identified in the table in Article 1.2.G, above.
2. All materials used for work area preparation.
3. All discarded personnel protective equipment.
4. All other potentially contaminated materials.

I. Other items of work shall include:

1. As per agreement between Contractor and Owner.

- J. Replacement of removed materials:
 - 1. As per agreement between Contractor and Owner. Where replacement applies, replacement materials shall be free of asbestos, lead, or any other material deemed hazardous by the State of California.
- K. Furnishings, cabinets, moveable objects, and equipment temporarily removed to gain access to hazardous materials shall be reinstalled to their original location upon completion of work, unless other arrangements and approval have been provided by the Owner.
- L. Damages caused during the performance of abatement activities shall be repaired by Contractor (e.g. paint peeled off by barrier tape, nail holes, water damage, etc.) at no additional expense to Owner, unless other arrangements and approval have been provided by the Owner.
- M. Listed quantities are for budgetary information and are not to be used for bidding purposes. The abatement contractor has the sole responsibility for confirming the location, quantity and degree of difficulty in removing the identified materials.

1.3 WORK TO BE PERFORMED BY OTHERS

- A. As per Project Specifications.

1.4 RESPONSIBILITIES OF OWNER

- A. The Owner will provide daily oversight of and environmental monitoring surrounding the abatement/removal operations.
- B. The Owner will provide existing water, at no cost to the Contractor, for construction purposes.
- C. The Owner will provide existing electrical power, at no cost to the Contractor, for construction purposes.
- D. The abatement contractor shall coordinate with the Owner and/or school representatives for the location of equipment storage, staging and waste storage locations.

1.5 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
- B. Transportation of Friable and Non-Friable Asbestos Containing Materials: Contractor shall itself be or have a subcontractor who is a registered hazardous waste transporter with the State of California, Department of Toxic Substances Control.
- C. Subcontractors shall hold all licenses applicable to specified trade work.

1.6 PERMITS

- A. As required by Cal/OSHA.
- B. As required by the South Coast Air Quality Management District.

- C. As required by local agencies for specific tasks (i.e., electrical permit for temporary power, etc.).

1.7 NOTIFICATIONS

- A. Contractor shall make all required written notifications to regulatory agencies including the following:
 - 1. California Division of Occupational Safety and Health (Cal/OSHA)
 - 2. South Coast Air Quality Management District (SCAQMD)
 - 3. California Department of Public Health (Cal/DPH)

1.8 INSURANCE REQUIREMENTS

- A. Contractor and all subcontractors shall maintain, at a minimum, workers compensation insurance at the statutory limits required. This shall, at a minimum, include the limits necessary to maintain their DOSH Asbestos Certification in good standing.
- B. Contractor shall maintain general liability insurance with a minimum rating of A RATING, with a limit of \$5 Million per occurrence and \$5 Million aggregate coverage.
- C. Contractor shall maintain pollution and environmental liability insurance with the same limits and rating requirements as the general liability insurance requirements in Item 1.8.B, above.
- D. Contractor and all subcontractors shall maintain, at a minimum, auto insurance with a minimum rating of A RATING, and a limit of \$2 Million per occurrence and \$2 Million aggregate coverage

1.9 BONDING REQUIREMENTS

- A. Please refer to Project Specification General Conditions and Requirements.

1.10 PROJECT SCHEDULE

- A. Project Start Date: TBD Project Completion Date: TBD
- B. All work shall be performed as per agreement between Contractor and Owner.
- C. For the purposes of this Work Plan "submittal due date" shall mean the day on which submittals required by Article 1.12 shall be received by the Construction Manager, "start work" shall mean the day Contractor arrives on the project site, and "completion date" shall mean the day Contractor leaves the project site including final clearance testing and demobilization.
- D. Contractor to indicate the number and duration of shifts required to perform abatement monitoring as part of the bid document. Costs associated with hazardous materials abatement monitoring, beyond those indicated in the Contractor's Bid, shall be deducted from Contractor's Contract Amount.

1.11 APPLICABLE REGULATIONS

- A. Contractor shall perform all Work in compliance with the most recent edition of all applicable federal, state, and local regulations, standards and codes governing asbestos abatement, transport, and disposal of asbestos-containing materials, lead-based/containing surface coatings and contaminated materials, and all other hazardous materials.

1. Requirements shall include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.
- B. Regulations, Standards, and Codes (General):
1. General applicability of federal, state, and local regulations, standards and codes governing hazardous materials abatement, demolition, transport, and disposal, except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable regulations, standards, and codes have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.
- C. Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices, transport, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.
1. The contractor is responsible for providing training, medical examinations and maintaining training/medical records of personnel as required by the applicable federal, state, and local regulations, including personal air monitoring for all work practices.
 2. The Contractor shall hold the Owner and Project Environmental Consultant harmless for failure to comply with any applicable hazardous materials abatement, transport, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

1.12 SUBMITTALS

- A. No later than ten days prior to commencement of work, Contractor shall submit (six copies) to the Project Environmental Consultant documentation that includes, without limitation, the following:
1. Current Copies of licenses and registrations required by Article 1.5 Required Licensure (include copies of subcontractors' licenses).
 2. Copies of written notification to the following regulatory agencies:
 - a. California Division of Occupational Safety and Health (Cal/OSHA)
 - b. South Coast Air Quality Management District (SCAQMD)
 - c. California Department of Public Health (Cal/DPH)
 3. Current Proof of insurance coverage required by Article 1.8 Insurance Requirements (include proof of insurance for subcontractors).
 4. Current Proof that required permits, site location and arrangements for transport and disposal of asbestos containing waste materials have been made.
 5. Current Proof of legal right to use patented equipment or processes.
 6. Current Manufacturer's certification that HEPA vacuums, differential pressure air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79 and have been permitted by the SCAQMD.

7. Current Documentation showing that Contractor's employees, including foreman, supervisor, and any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of asbestos abatement activities, have received training as required by 29 CFR 1926.1101 and 8 CCR 1529.
 8. Current Documentation from Physician (signed by an M.D.) showing that all employees or agents who may be exposed to airborne asbestos fibers in excess of background levels have received medical monitoring to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, chemical contaminants) that may impact on the employee's ability to perform work activities.
 9. Current Documentation of respirator fit-testing for all Contractor employees and agents who must enter the work area. This fit-testing shall be conducted annually and in accordance with procedures as required by 29 CFR 1910.134 and 8 CCR 5144.
 10. An emergency preparedness plan as required by Article 1.15 - Emergency Planning.
 11. Master schedule, showing phasing, number of shifts, time for air clearances, tear down and manpower loading to be utilized for the duration of the project.
 12. Submit a list of at least five projects of similar size, nature, and scope of work, completed within the past three years
 13. A site specific work plan based on scope of work. Include a diagram showing containment set-up, decontamination unit(s), locations of negative air machines and exhaust placement.
- B. During abatement activities, Contractor shall submit to Project Environmental Consultant documentation that includes, without limitation, the following:
1. Copies of the work area entry/exit log book. Log book must record name, affiliation, time in, and time out for each entry into the work area.
 2. Copies of logs documenting filter changes on respirators, HEPA vacuums, differential pressure air filtration devices, water filtration device, and other engineering controls.
 3. Copies of Material Safety Data Sheets (MSDS) for solvents, encapsulants, wetting agents, replacement materials, and other substances brought by Contractor to the Project Site. MSDSs shall be available the first day that subject materials/substances are present on the project site.
 4. Results of all required OSHA compliance air monitoring. Results shall be available on-site within 48 hours of completion of the last shift.
 5. Copies of all accident/incident reports where injury or damage has occurred on or to the Owner's property.

6. Copies of daily logs indicating location(s) worked, type of materials removed, quantity of materials removed and number of personnel conducting the aforementioned activities.
7. Copies of all transport manifests, trip tickets and disposal receipts for all asbestos waste materials removed from the work area within 48 hours of the transport.
8. Abatement contractor is responsible for profiling all waste streams at the start of the project. Results must be submitted to the Environmental Consultant for verification of proper disposal.

1.13 NOTICES

- A. Post in the clean room area of the worker decontamination enclosure a list containing the names, and telephone numbers of Owner, Construction Manager, Abatement Contractor, and Project Environmental Consultant.
- B. Post in the clean room area of the worker decontamination enclosure a list of all persons authorized to enter the work area.
- C. Additional postings shall include:
 1. Visitor Entry and Exit Log.
 2. Employee Daily Sign in Log.
 3. Entry and Exit Procedures.
 4. Emergency Procedures.
 5. Copies of permits required in Article 1.6 of this document and copies of notifications required in Article 1.7 of this document.
 6. As required by the Department of Labor.

1.14 SITE USE AND SECURITY

- A. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond which areas on which work is indicated are not to be disturbed.
- B. The work area shall be restricted only to authorized, trained and protected personnel, including Contractor, Contractor's employees, Owner's employees, Owner, Construction Manager, Project Environmental Consultant, State and Local Inspectors.
- C. Entry into the work area by unauthorized individuals shall be reported immediately to the Project Environmental Consultant and Construction Manager.
- D. Contractor shall be responsible for Project site security during abatement operations in order to protect work efforts and equipment.

1.15 EMERGENCY PLANNING

- A. Emergency planning and procedures shall be developed by Contractor prior to abatement initiation.
- B. Emergency procedures shall be in written form and prominently posted. Contractor shall ensure that all persons entering the work area read these procedures and understand the Project site layout, location of emergency exits and emergency procedures.

- C. Emergency planning shall include considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, school emergencies and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided by Contractor.
- D. Employees shall be trained in evacuation procedures in the event of work place emergencies.
 - 1. For nonlife threatening situations, employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.
 - 2. For life threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the work place and secure proper medical treatment.
 - 3. Telephone numbers of all emergency response personnel and map to closest hospital shall be prominently posted in the clean and equipment rooms.

1.16 FIRE PROTECTION

- A. All plastic, spray-on strippable coatings, and structural materials used in the asbestos abatement process shall be UL-approved and certified as fire retardant or noncombustible.
- B. Wood shall be pressure impregnated and certified as fire retardant.
- C. Material Safety Data Sheets (MSDS) for fire retardant materials shall be made available upon request.
- D. All combustible rubbish and debris, including properly bagged asbestos shall be properly disposed of at the end of each working day.
- E. A minimum of one (1) 4A/60BC dry-chemical extinguisher shall be maintained at each of the following locations:
 - 1. At each corner of the work area. Where no clear corners exist, four (4) extinguishers shall be placed around the exterior wall of the work area so that they are approximately 25 percent of the total distance apart.
 - a. Exception: Where the total contained work area is less than 1,000 square feet, two (2) 4A/60BC extinguishers shall be provided. All extinguishers shall be clearly identified with red tape.
 - 2. Contractor shall ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.
- F. All existing fire detection, alarm systems, connections and standpipes shall remain in place, active and unobstructed. Any alteration to this equipment must be approved by Project Environmental Consultant.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Generally, Contractor shall carefully adhere to the following:
1. All plastic, spray-on strippable coatings and structural materials used shall be UL-certified as fire retardant or non-combustible.
 2. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name (where applicable).
 3. Fire-retardant polyethylene sheeting utilized for worker decontamination and construction/containment barriers shall be a minimum of six-mil in thickness.
 4. Disposal bags shall be of six-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152(b)(1)(iv) or applicable Cal/OSHA requirements.
 5. Stick-on labels as per EPA or Cal/OSHA requirements for disposal drums.
 6. Warning signs as required by Cal/OSHA shall be utilized.
 7. Disposal drums shall be 55-gallon DOT A1A (DOT 17H) with locking ring tops and will meet the requirements of 49 CFR 172-178.
- B. Removal and Encapsulation:
1. Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in proportion of 1 fluid ounce to 5 gallons.
 2. The encapsulating agent to be applied shall adhere to the substrate surfaces from which asbestos-containing material has been stripped.
 3. The encapsulating agent shall not be flammable and should not be solvent-based or utilize a vehicle (the liquid in which the solid parts of the encapsulant are suspended) consisting of hydrocarbon.
 4. If utilized, mastic removal solvents shall **NOT** be or create a RCRA waste, and shall be of the low odor variety.
- C. Replacement:
1. Submit manufacturers certification indicating that replacement materials (if used) do not contain asbestos or more than 90 parts per million (dry weight) of lead.

2.2 EQUIPMENT

- A. General:
1. A sufficient quantity of HEPA vacuums and/or differential pressure air filtration devices equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document

EPA 560/5-83-002 Guidance for Controlling Friable Asbestos Containing Materials in Buildings. To calculate total air flow requirement:

$$\text{Total ft}^3/\text{min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{15 \text{ min}}$$

To calculate the number of units needed for the abatement:

$$\text{Number of units needed} = \frac{\text{[total ft}^3/\text{min]}}{\text{[capacity of unit in ft}^3/\text{min]}}$$

2. At a minimum, full-face powered air-purifying respirators (PAPRs) with P-100 cartridges shall be utilized during all friable/Class I asbestos removal and for all removal of lead-containing paints/substances involving abrasive removal techniques.
 3. At a minimum, half-face air-purifying respirators with P-100 cartridges shall be utilized during all ceramic tile or lead-containing paint removal/impact except abrasive removal, or for the removal of all non-friable/Class II asbestos removal. Where this work involves the use of solvent to remove ACM mastics, dual P100/Organic Cartridges shall be utilized.
 4. Respirators shall be furnished to the abatement workers by Contractor. The respirators shall have been tested and approved by National Institute of Occupational Safety and Health (NIOSH) for use in asbestos atmospheres.
 5. Full body disposable protective clothing, including head, body, and foot coverings shall be furnished to visitors in sizes adequate to accommodate movement without tearing.
 6. Additional safety equipment as supplied in accordance with 8 CCR 1514, (e.g. hard hats meeting the requirements of 8 CCR 1515, eye protection meeting the requirements of 8 CCR 1516, safety shoes meeting the requirements of 8 CCR 1517, hand protection meeting the requirements of 8 CCR 1520, hearing protection meeting the requirements of 8 CCR 1521 and body protection meeting the requirements of 8 CCR 1522), as necessary, shall be furnished to all workers.
 7. Non-skid foot wear shall be furnished to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
 8. Furnish a sufficient supply of disposable mops, rags, and sponges for work area decontamination.
- B. Removal:
1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g., scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be furnished as needed.
 2. Rubber dustpans and rubber squeegees shall be furnished for cleanup.
 3. Brushes utilized for removing loose asbestos-containing material shall have nylon or fiber bristles, not metal.
 4. A sufficient supply of HEPA filtered vacuum systems shall be furnished.

- C. Encapsulation: Encapsulants shall be sprayed using airless spray equipment or hand pressurized sprayer.
- D. Enclosure: Hand tools equipped with HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports if there is any need to disturb asbestos containing materials during this process. As an alternative asbestos material may be partially removed following controlled removal procedures approved by the Project Environmental Consultant.

PART 3 - EXECUTION

3.1 CLASS I ASBESTOS REMOVAL WORK

The following procedures shall be utilized for all removal of friable materials and/or all Class I Asbestos Work, as well as the removal of non-friable ACM utilizing mechanical removal methods (Class I work to be performed for this project includes impacts to the spray-applied acoustic ceiling material in the Planetarium, and would also include the thermal system insulation in the Liberal Arts Building, if it is determined that it will be impacted).

- A. Contractor shall coordinate all items of work with the Project Environmental Consultant and Construction Manager.
- B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as an air intake), the HVAC system shall remain off during the project.
- C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, insure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.
- D. Install worker decontamination unit described in Article 3.8, or as agreed upon with Project Environmental Consultant.
- E. Post warning signs meeting the specifications of SCAQMD Rule 1403, 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.
- F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.
- G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Contractor shall not use any methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.

- H. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers, skylights and any other openings between the Work Area and uncontaminated areas outside of the Work Area with two layers six-mil fire retardant polyethylene sheeting and tape.
- I. Cover floors in the area, as follows (cover floors where flooring finishes, such as floor tile and/or mastic, are to be removed, during Class I activities).
 - 1. Two layers of six-mil (minimum) sheeting. Additional layers of sheeting may be utilized as a drop cloth to aid in cleanup of bulk materials, and/or to ensure protection from water leaks.
 - 2. Containment plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is sufficient. Do not locate any seams at wall/floor joints.
 - 3. Floor sheeting shall extend at least 12" up the side walls of the Work Area.
 - 4. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.
- J. Cover all immovable items (plumbing, etc.) and/or construct walls in the Work Area with fire retardant polyethylene sheeting and seal with duct tape. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant). Walls shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls, including louvers in Mechanical Rooms, must be sealed by critical barriers.
 - 1. Walls shall be covered with two layers six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).
 - 2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.
 - 3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.
 - 4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.
 - 5. Where necessary for structural support, plywood sheeting and/or 2x4 lumber shall be utilized to ensure the structural integrity of the containment and critical barriers.
 - 6. Fire exits shall be clearly labeled as required by applicable regulations.
- K. Install the minimum number of 2' x 3' clear view windows that will provide visual access to ALL areas of each enclosure (two viewing ports, minimum).
- L. Install and initiate operation of negative pressure air filtration as required in Article 2.2 - Equipment. Negative pressure differential shall be at a minimum of -0.02" of water column, relative to adjoining areas, at all times during asbestos removal operations.

- M. Install and maintain a manometer equipped with a strip chart recorder. Manometer shall be capable of detecting at least 0.01" of water column.
- N. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as power washers, are acceptable, as long as they are equipped with proper HEPA-filtration equipment and do not create an undue hazard.
- O. Keep the ACM's being removed wet throughout removal operations by the use of an airless sprayer. In the event that visible dust is generated during the abatement process, also mist the air within containment periodically with water or an amended water solution with an airless sprayer to reduce airborne asbestos fiber concentrations.
- P. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.
- Q. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.
- R. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.2 CLASS II ASBESTOS REMOVAL WORK - GENERAL

The following procedure shall be utilized for all removal of non-friable/Class II ACM, except roofing products. This type of work shall include, but not be limited to asbestos-containing mastic dots, flooring mastic, and vinyl flooring finishes. Class II removal of roofing products is addressed in Article 3.3, below.

- A. Contractor shall coordinate all items of work with the Project Environmental Consultant and Construction Manager.
- B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as an air intake), the HVAC system shall remain off during the project.
- C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, insure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.
- D. Install worker decontamination unit described in Article 3.8, or as agreed upon with Project Environmental Consultant.
- E. Post warning signs meeting the specifications of SCAQMD Rule 1403, 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.
- F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.

- G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Contractor shall not use any methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.
- H. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers, skylights and any other openings between the Work Area and uncontaminated areas outside of the Work Area with two layers six-mil fire retardant polyethylene sheeting and tape.
- I. Cover floors in the area of removal with fire retardant polyethylene sheeting (do not cover floors where asbestos-containing flooring finishes, such as floor tile and/or mastic, are to be removed).
 - 1. A single layer of fire retardant six-mil (minimum) sheeting. Additional layers of sheeting shall be utilized as a drop cloth to aid in cleanup of bulk materials.
 - 2. Containment plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is sufficient. Do not locate any seams at wall/floor joints.
 - 3. Floor sheeting shall extend at least 12" up the side walls of the Work Area.
 - 4. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.
- J. Cover all immovable items (plumbing, etc.) and/or construct walls in the Work Area with fire retardant polyethylene sheeting. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant). Walls shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls must be sealed by critical barriers.
 - 1. Walls shall be covered with two layers six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).
 - 2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.
 - 3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.
 - 4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.
 - 5. Fire exits shall be clearly labeled as required by applicable regulations.
- K. Install the minimum number of 2' x 3' clear view windows that will provide visual access to ALL areas of the enclosure.

- L. Install and initiate operation of negative pressure air filtration differential as required in Article 2.2 - Equipment. Negative pressure differential shall be at a minimum of -0.02" of water column, relative to adjoining areas, at all times during asbestos removal operations.
- M. Install and maintain a manometer equipped with a strip chart recorder. Manometer shall be capable of detecting at least 0.02" of water column.
- N. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as bead-blasters for mastic removal activities, are acceptable, as long as they are equipped with proper HEPA-filtration equipment.
- O. Keep the ACMs being removed wet throughout removal operations. In the event that visible dust is generated during the abatement process, also mist the air within containment periodically to reduce airborne asbestos fiber concentrations.
- P. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.
- Q. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.
- R. Dispose of all asbestos containing/contaminated waste; debris shall be kept wet at all times and be bagged while wet in accordance with Article 3.9 - Disposal Procedures.

3.3 CLASS II ASBESTOS REMOVAL WORK – ROOFING PRODUCTS

The following procedure shall be utilized for all removal of non-friable/Class II asbestos-containing roofing products, including asphaltic roof membranes, flashings, and related mastics (this section is listed for informational purposes only, since roofing impacts are not anticipated).

- A. Contractor shall coordinate all items of work with the Project Environmental Consultant and Construction Manager.
- B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as a fresh air intake), the HVAC system shall remain off during the project.
- C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, ensure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.
- D. Install worker decontamination unit described in Article 3.8 or as agreed upon with Project Environmental Consultant. If installation cannot occur on the roof, installation shall occur as close to the roof access as possible, with polyethylene sheeting laid-down between the decontamination unit and the roof access. The pathway from the regulated asbestos work area to the decontamination unit shall also be deemed part of the regulated asbestos work area, and so demarcated.

- E. Post warning signs meeting the specifications of 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure (generally, at roof accesses, or at least twenty feet from removal, if on roof).
- F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2. Double-suiting is recommended, if decontamination unit is not on roof.
- G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Generally, this will include roof-mounted duct work and equipment only; there is no need to pre-clean surfaces to be removed. Contractor shall not use methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.
- H. Seal off all windows, doorways, drains, ducts, skylights, roof penetrations, and any other openings between the Work Area and uncontaminated areas outside of the Work Area with six-mil fire retardant polyethylene sheeting and tape.
- I. Cover all immovable items (plumbing, etc.) and/or construct walls around immovable objects with fire-retardant polyethylene sheeting. Walls, where present, shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls must be sealed by critical barriers.
 - 1. Walls shall be covered with six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).
 - 2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.
 - 3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal.
 - 4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.
 - 5. Fire exits shall be clearly labeled as required by applicable regulations.
- J. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as mechanical shears for cutting membranes into strips, are acceptable, as long as they are equipped with proper shrouding and HEPA-filtration equipment.
- K. Keep the ACMs being removed wet throughout removal operations. In the event that visible dust is generated during the abatement process, also mist the air within regulated area periodically to reduce airborne asbestos fiber concentrations.
 - 1. Bags of asbestos waste shall not be dropped or thrown from the roof, but shall be carefully lowered to the ground.

- L. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.
- M. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.
- N. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.4 CLASS III ASBESTOS DISTURBANCE WORK

Asbestos-related disturbance is the drilling, coring, removal or similar disturbance of asbestos-containing construction materials (ACCM) or asbestos-containing materials (ACM), in an amount not to exceed three (3) square feet in any one opening, and not to disturb 100 square feet or greater cumulatively on any one project (contract). Asbestos-related disturbance work is considered to be Class III work in accordance with Title 8, Section 1529 (Asbestos) of the California Code of Regulations. In the event that disturbance greater than 3 square feet or 100 square feet total is required, the asbestos-related work shall be considered Class I or Class II asbestos abatement, and shall require the use of an asbestos abatement contractor using 40-hour asbestos-trained workers and notification to the South Coast Air Quality Management District (SCAQMD) per Rule 1403, as required, (See Sections 3.1, 3.2, and 3.3 of this specification).

- A. Minor disturbance activities must be performed, at a minimum, by personnel possessing current 16-hour asbestos operations and maintenance (O & M) training. ACM waste must be disposed of as hazardous or non-hazardous asbestos-containing waste, as appropriate. ACCM waste generated during minor disturbances can be disposed of as non-regulated construction waste, but should still be bagged to minimize airborne asbestos fibers.
- B. ACM or ACCM to be impacted by fastener installations, drilling and/or coring during the planned Modernization Project shall be a prime example of work to be addressed as Class III work.

Refer to drawings and instructions to bidders for building components to be so impacted.

- C. Shut off air handling equipment to rooms where work will occur.
- D. Demarcate the work area with plastic "Caution" tape. Provide and post signs at the entrance to the work area affected. The signs shall comply with Cal/OSHA regulations.
- E. Clean the area immediately under the location to be disturbed.
- F. Move any moveable furniture or objects from immediately beneath the area to be disturbed. Immovable objects shall be covered with one layer of fire retardant polyethylene sheeting sealed airtight with tape.
- G. At a minimum, six-mil fire retardant polyethylene sheeting shall be placed on the floor below the work area. The plastic sheeting will be secured to the closest wall and floor surface with tape. The plastic sheeting shall extend away from the work area a sufficient distance so that debris is confined to the plastic and that debris is not tracked onto adjoining flooring or carpeted surfaces.

- H. For Class III disturbances requiring the cutting of an opening of 1 square foot or greater, but less than 3 square feet, through ACM or ACCM, or into an asbestos-contaminated space, provide an enclosure around the area of disturbance. This may include, but is not limited to:
 - 1. Mini-enclosure where not more than two persons may occupy for the purpose cutting holes in walls or ceilings.
 - 2. For drilling, coring, sawing or similar disturbance, an enclosure shall be placed over the area of disturbance of sufficient size to cover that area and contain the tools used. This can include drilling with a shroud, through a wet sponge, through a plastic enclosure, or similar designs which will ensure control of Asbestos fibers and other dust. Drilling or coring with the use of a vacuum collection device shall be equipped with a HEPA filter.
- I. A HEPA-equipped vacuum shall be used for all disturbance, decontamination, and debris clean-up work.
- J. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.
- K. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.
- L. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.5 LBP/LCP IMPACTS, REMOVAL & DEMOLITION

This section applies to the removal of lead-based paints and/or the demolition of components coated with lead-based or lead-containing surface coatings, including lead-based paints, ceramic tiles with leaded glazing, and other lead-bearing materials (there is no known LBP work to be performed for this project; this article is for informational purposes, only, to be utilized in the event that LBP work is required).

- A. Post warning signs meeting the specifications of 8 CCR 1532.1, 17 CCR 35000-36100, 40 CFR 745 and 29 CFR 1926.62 as appropriate, at any location and approaches to a location where airborne concentrations of lead dust may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure. Barrier tape shall be utilized in conjunction with appropriate signage for exterior removal activities, to delineate the extent of regulated work areas.
- B. Prepare appropriate fall protection systems in accordance with the requirements of Title 8 California Code of Regulations, Sections 1669, 1671.2, and 1724, and anchoring guidance from Title 8 California Code of Regulations, Section 3283 (where applicable).
- C. Install worker decontamination unit described in Article 3.8, or as agreed upon with Project Environmental Consultant.
- D. Lead-containing materials (LCM) handlers involved in removal procedures shall wear two disposable Tyvek suits, including gloves, hood and footwear. Minimum respiratory protective equipment shall be half-face air-purifying respirators equipped with P100 filters. Upon exiting the work area the handlers shall HEPA vacuum all visible debris from the

outer suit, dispose of it as lead-contaminated waste, and proceed through the decontamination unit for full decontamination.

- E. Isolate work area by installing critical barriers or curtained doorways across all openings where airborne lead dust migration may cause secondary lead contamination. For work where components will be removed relatively intact, such as doors, downspouts, and wood trim, drop cloths will suffice.
- F. Cover floors in each work with fire retardant polyethylene sheeting (do not cover floors where flooring finishes, such as ceramic flooring, for example, are to be removed).
 - 1. A single layer of six-mil (minimum) sheeting.
 - 2. Containment plastic shall be sized to minimize seams.
 - 3. Where multiple layers of floor poly are utilized, sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.
- G. Cover all immovable items and/or construct walls in the Work Area with fire retardant polyethylene sheeting. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant).
 - 1. Walls shall be covered with six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).
 - 2. Plastic shall be sized to minimize seams.
 - 3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal for negative pressure.
 - 4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This may require additional support/attachment when Negative Pressure Ventilation Systems area utilized.
 - 5. Fire exits shall be clearly labeled with red tape or equivalent.
- H. Where manual demolition is employed for lead removal, such as ceramic tile demolition (for example), periodically mist the work area and materials to be impacted to maintain a wet condition and avoid the creation of airborne dust, which may carry lead.
- I. The Contractor shall carry out all impacts to lead-based surface coatings in a manner that will minimize pulverizing, breaking, abrading, or in any other way impacting lead-containing paints and generating airborne lead-containing dust.
- J. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.
- K. Dispose of all lead-containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.6 UNIVERSAL WASTE RULE IMPACTS, REFRIGERANTS, and PCBs

This section applies to the removal of all Universal Waste Rule items, such as non-incandescent lamps (fluorescent light tubes), mercury switches and batteries, as well as other commonly encountered items, such as refrigerants and fluorescent light fixture ballasts (which might contain

PCBs). This section is listed for informational purposes, because these materials/items are known to be present, but are not anticipated to be impacted by the project work.

- A. All fluorescent light fixtures to be disposed of shall be disassembled in a non-destructive manner. All fluorescent light tubes shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Division 4.5, et al, of the California Health and Safety Code.
- B. Once fluorescent light tubes have been removed from light fixtures to be disposed of, ballasts shall be visually inspected. All ballasts which are not clearly marked “No PCBs” or “PCB Free” shall be assumed to contain PCBs, and shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Division 4.5, et al, of the California Health and Safety Code. Any ballasts which are observed to be leaking shall be containerized, and shall be disposed via incineration as per 40 CFR 761. All other ballasts may be incinerated or recycled, in accordance with 40 CFR 761. ***In spite of the small capacitor variance, land disposal of PCB-containing ballasts shall not be considered an acceptable disposal method, under any circumstances.***
- C. Mercury switches identified in thermostat controls and/or any other electrical switching equipment to be demolished shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Division 4.5, et al, of the California Health and Safety Code. ***The Owner’s preferred method of disposal shall be recycling.***
- D. All identified refrigerants shall be collected and disposed of in accordance with all applicable SCAQMD and federal EPA guidelines. ***The Owner’s preferred method of disposal shall be recycling.***
- E. All other Universal Waste Rule wastes shall be removed intact, where feasible, and shall be packaged and disposed of in accordance with Title 22 of the California Code of Regulations, Division 4.5, et al, of the California Health and Safety Code. ***The Owner’s preferred method of disposal shall be recycling.***

3.7 CLEAN-UP PROCEDURES

- A. Remove and containerize all visible accumulations of asbestos-containing material, lead-containing material, and asbestos/lead-contaminated debris, utilizing rubber dust pans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste within contained work areas (it tends to tear the polyethylene sheeting).

Asbestos-containing/contaminated waste shall be placed in leak tight disposal bags. Disposal bags shall be doubled six-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (I) (iv), Cal/OSHA (Title 8 CCR Sections 1529 and 5208), SCAQMD Rule 1403, and if applicable Title 22 CCR Division 4.5.

Lead-containing wastes shall be containerized in 55-gallon steel drums with labels as required by 8 CCR 1532.1 and 22 CCR Division 4.5.

All other hazardous wastes shall be containerized as appropriate and disposed of in a manner that satisfies the requirements for characterization and disposal set forth in 22 CCR 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

- B. Whether cleaning an asbestos work area or a lead work area (or both), wet clean all surfaces in the work area utilizing rags, mops and sponges, and clean all horizontal surfaces within each work area with a HEPA-vacuum, as appropriate.

- C. Remove the cleaned layer of polyethylene sheeting from floors and walls, as applicable. Windows, doors, HVAC system vents and all other openings (critical barriers, if employed) shall remain sealed. Dispose of as asbestos-contaminated or lead-contaminated as appropriate to the work area in question.
- D. After gross cleaning of the work area, HEPA-vacuum and wet clean all objects and surfaces in the work area are completed, remove all containerized waste from the work area.
- E. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- F. Project Environmental Consultant will inspect the work area for visible residue. If any visible accumulation of residue is observed, it will be assumed to be asbestos and/or lead, as appropriate to the work area, and a second settling period and cleaning cycle repeated at no additional cost to Owner.
- G. Following the satisfactory completion of clearance air monitoring or clearance wipe testing, the remaining barriers may be removed and prepared for proper disposal. A final visual inspection by Project Environmental Consultant will be performed. Unsatisfactory conditions, such as finding asbestos- or lead-containing debris behind the containment barriers, may require additional cleaning and air monitoring/wipe sampling, at no additional cost to Owner.

3.8 WORKER DECONTAMINATION SYSTEMS

- A. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. At a minimum, one three-stage system at a single location is required for all Class I work, or for any abrasive removal processes involving lead-based paints. Each work area where negative pressure enclosure is the selected method of engineering controls shall have a worker decontamination unit.
- B. Worker decontamination enclosure systems constructed at the Project site shall utilize six-mil, fire-retardant polyethylene sheeting, or other approved materials for privacy (generally, black polyethylene sheeting).
- C. Personnel Decontamination Units shall not be located inside a regulated work area unless specifically authorized by the Project Environmental Consultant.
- D. Alternate methods of providing Decontamination facilities may be submitted to the Project Environmental Consultant for approval. Do not proceed with any such method(s) without prior written authorization.
- E. The worker decontamination enclosure system shall consist of at least a cleansing station in accordance with the requirements of 8 CCR 1527 and 8 CCR 1529, equipped with adequate water, towels and cleansing agents to accommodate the entire crew and visitors.

3.9 DISPOSAL PROCEDURES

- A. All friable asbestos (greater than 1% asbestos) waste shall be disposed of as Hazardous, Friable Asbestos Waste. All non-friable asbestos (greater than 1% asbestos) waste shall be disposed of as Non-Hazardous, Non-Friable Asbestos Waste.

- B. Contractor is responsible for characterization of lead waste prior to waste being transported off site. All waste characterization samples must be taken under the supervision of the Project Environmental Consultant. Characterization sample results must be submitted to the District for review prior to waste being transported off site.
- C. All lead waste shall be either disposed of as construction debris (if STLC/TCLP results allow) or lead-containing waste (with attendant RCRA codes, if TCLP results so require).
- D. All asbestos-containing waste shall be placed and stored in clear, sealed, leak-tight and appropriately labeled containers, in accordance with 8 CCR 1529 and SCAQMD Rule 1403, and transported to an appropriate landfill for disposal.
- E. All lead wastes shall be either disposed of as construction debris (if STLC/TCLP results allow) or lead-containing waste (with attendant RCRA codes, if STLC/TCLP results so require).
- F. All hazardous wastes (including non-hazardous asbestos wastes) must be disposed of by a certified waste hauler approved by the Owner.
- G. Arrange for proper disposal of any generated hazardous waste stream through an Owner-approved waste disposal facility.
- H. Obtain the EPA Hazardous Waste Generator Identification Number and State of California Hazardous Waste Tax Identification Number from the Owner.
- I. All hazardous waste manifests or non-hazardous material data forms shall be delivered to the Project Environmental Consultant. Record keeping format shall utilize a chain of custody form which includes the names and addresses of the Generator (Owner), Contractor, Waste Hauler, pickup site, disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form shall be signed by the Generator, Contractor, Waste Hauler and the Disposal Site Operator, as the responsibility for the material changes hands.

3.10 REESTABLISHMENT OF THE WORK AREAS

- A. Reestablishment of the work area shall only occur following the completion of clean-up procedures and after clearance air monitoring or wipe sampling has been performed and documented to the satisfaction of Project Environmental Consultant.
- B. Contractor and Project Environmental Consultant shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning and air monitoring requirements at no additional cost to Owner, until approved by Project Environmental Consultant.
- C. Upon approval by Project Environmental Consultant, the Contractor shall remove remaining fire retardant polyethylene sheeting, critical barriers, and decontamination unit.
- D. Repair all areas of damage that occurred as a result of abatement activities at no additional cost to Owner, unless other arrangements and approval have been provided by the Owner.

3.11 ENVIRONMENTAL MONITORING

If, at any time, an SBCCD Representative or the Project Environmental Consultant decides work practices are violating Specifications, or, Federal or local regulations to extent of potential endangerment of building users, workers, SBCCD Representative, employees or public, they will immediately notify Contractor (followed up in writing) that operations shall cease until corrective

action is taken by Contractor. Contractor shall take such corrective action before proceeding with work. Loss or damage due to Stop Work Order(s) shall be Contractor's responsibility. A Stop Work Order, issued by SBCCD's Representative or Project Environmental Consultant shall become effective immediately.

- A. Air monitoring or wipe sampling, as appropriate, will be carried out by the Project Environmental Consultant on behalf of the Owner to verify that the building beyond the contamination area and the outside environment remains uncontaminated.
- B. Background Air Monitoring:
 - 1. The Project Environmental Consultant may perform pre-abatement air monitoring to determine ambient fiber levels prior to abatement. The analytical method shall utilize Phase Contrast Microscopy (PCM) using the NIOSH 7400 Method.
- C. Area Air Monitoring: The Project Environmental Consultant may perform in-progress air monitoring daily to determine area airborne contaminant concentrations within the confines of the work area.
 - 1. Environmental Air Sampling: Ambient air samples are taken and analyzed to indicate fiber migration from containment to the environment. Should any environmental sample outside work areas exceed the base line of 0.01 f/cc of air, or established background concentrations as determined by PCM analysis, all work will immediately halt except for corrective work. The PEC shall determine the source of the high fiber count and notify the contractor with directions for the corrective action.
- D. Clearance Air/Wipe Monitoring:
 - 1. Following the completion of final clean-up operations, notify the Project Environmental Consultant that work areas are ready for final inspection and clearance air/wipe monitoring.
 - 2. Project Environmental Consultant will then sample the air/surfaces in the work area for airborne fiber concentrations.
 - 3. Phase Contrast Microscopy (PCM): In each homogeneous work area after completion of all cleaning work, a minimum number of samples will be collected and analyzed in accordance with the NIOSH 7400 Methodology as follows:

For work areas less than 160 square feet or 260 linear feet:

 - a. 5 interior aggressive air samples, 1 field blank sample and 1 lab blank sample for areas that had asbestos-containing materials removed.
 - b. Release Criteria: Decontamination of the work site is complete when each sample analyzed reveals airborne asbestos fiber concentrations are at or below 0.010 f/cc, or established background concentrations.
 - c. If these conditions are not met then the decontamination is incomplete and the cleaning procedures noted in Article 3.7, above, shall be repeated. The area shall be re-tested at no additional cost to Owner until satisfactory levels are obtained.

4. Transmission Electron Microscopy (TEM): In each homogeneous work area after completion of all cleaning work, a minimum number of samples MAY be collected and analyzed by TEM in accordance with the requirements of 40 CFR Part 763, Subpart E (AHERA) as follows:

For work areas equal to or greater than 160 square feet or 260 linear feet:

- a. 5 interior aggressive air samples, 5 exterior air samples, 2 field blank samples and 1 lab blank sample for areas that had asbestos-containing materials removed.
 - b. Release Criteria: Decontamination of the work site is complete when the average of the five interior samples reveals that airborne asbestos fiber concentrations are at or below 70 structures/mm², or established background concentrations (if comparison is going to be attempted, the classic "Z" Test shall be applied to the results of the interior versus the exterior sample results).
 - c. If these conditions are not met, decontamination shall be deemed incomplete, and the cleaning procedures noted in Article 3.7, above, shall be repeated. The area shall be re-cleaned and re-tested at no additional cost to Owner until satisfactory levels are obtained.
5. For work associated with LCM, wipe sampling shall be performed within the controlled work areas following completion of all lead-related impact and decontamination efforts.
 - a. Release Criteria: Decontamination of the work site is complete when each of at least two samples per work area are analyzed and reveal lead concentrations below those set forth by CDPH in 17 CCR 35001, et. seq. Generally, this shall be 40 micrograms of lead per square foot of area on interior floors.
 - b. If these conditions are not met then the decontamination is incomplete and the cleaning procedures noted in Article 3.7, above, shall be repeated. The area shall be re-tested at no additional cost to Owner until satisfactory levels are obtained.

3.12 OSHA PERSONNEL AIR MONITORING:

A. **Air monitoring required by OSHA is work of the contractor. The contractor is responsible for providing daily OSHA compliance monitoring as per 29 CFR 1926.1101, 8 CCR 1529 for asbestos and 29 CFR 1926.62 and 8 CCR 1532.1 for lead.**

1. At minimum, Contractor shall conduct representative (25% of crew) breathing zone personal air monitoring of its employees. This shall be repeated daily, or until a "negative exposure assessment", as derived in accordance with 29 CFR 1926.1101 (f)(2)(iii) and 8 CCR 1529 for asbestos, and 8 CCR 1532.1 for lead.
2. Monitoring shall be conducted by a qualified air professional experienced and knowledgeable about the methods of air monitoring and in accordance with 29 CFR 1926.1101, 8 CCR 1529 and 8 CCR 1532.1.

3. Monitoring results and appropriate laboratory analysis work shall be submitted to Project Environmental Consultant **within forty-eight (48) hours of the monitoring work.**

3.13 ALTERNATIVE PROCEDURES

- A. If specified procedures cannot be utilized, a request shall be made in writing to Project Environmental Consultant providing details of the problem encountered and recommended alternatives.
- B. The removal of all “other” hazardous materials shall be handled as an alternative procedure. Contractor shall submit a work plan for the removal, handling, and disposal of all “other” hazardous materials, including but not limited to fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and radioactive smoke detector sources. Work described in said work plan(s) shall not commence until the work plan has been accepted and approved, in writing, by Project Environmental Consultant.
- C. Alternative procedures shall provide equivalent or greater protection than procedures that are replaced.
- D. Any alternative procedure must be approved in writing by the Project Environmental Consultant prior to the implementation of the procedure.

End of Section 13280

EXHIBIT G



June 26, 2017

Ernie Loera, CCM
Facilities Project Manager
San Bernardino Community College District
Facilities Planning & Construction
114 South Del Rosa Drive
San Bernardino, CA 92408

**Project: HazMat Testing Report for Fire/Life Safety Project
San Bernardino Valley College, 701 Mt. Vernon Avenue, San Bernardino, CA
Planetarium and Liberal Arts Building
Vista Project No. 17 0246 001**

Dear Mr. Loera:

At the request of the San Bernardino Community College District, Vista Environmental Consulting (Vista) performed a limited hazardous materials update investigation within the Planetarium and the Liberal Arts Building on the campus of San Bernardino Valley College, located at 701 Mount Vernon Avenue in San Bernardino, California (the Project Site).

The purpose of this investigation was to identify hazardous materials (asbestos, lead-based paints and/or Universal Waste Rule items) likely to be impacted during planned modernization of the fire/life safety systems within each of the two buildings. Part of the proposed project scope shall include various demolition and new installation activities.

The site walk was performed on June 1 and June 2, 2017, by Vista employee Andrew Schmidt. The results of the survey indicate that the following hazardous materials are likely to be impacted by planned construction activities:

Table 1 - Hazardous Materials Summary – Liberal Arts Building

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Fitting Insulation	Hard Pack Elbows and "T"	Room 129 and Boiler Room	Class I F ACM	N/A (See Note 1)
Vinyl Floor Tile & Mastic	12" Beige	Majority of Floor Two	Class I NF ACM	4 SF (See Note 2)
Ceramic Wall Tiles	Beige	Multiple Restrooms (Rooms 182, 183, 272 and 273)	Lead-Based Paint	See Note 3
Ceramic Wall Tiles	White	Multiple Restrooms (Rooms 133, 134, 231 and 232)	Lead-Based Paint	See Note 3
Fluorescent Lighting Tubes (Hg)		Lighting Throughout Building	UWR – Hg	See Note 4
Fluorescent Lighting Ballasts (PCB)		Lighting Throughout Building	UWR and PCBs	See Note 4
Batteries (Pb/Acid and Ni/Cd)		Inside Emergency Exit Signs	UWR	See Note 4

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Notes to Table 1:				
<ol style="list-style-type: none"> This material appears to be in close proximity to project work. It is not called-out for removal as part of the project work, but if it is decided that the new installations cannot be affected without impacting the hard pack mechanical fitting (elbow) insulation, this material must be removed prior to work which would impact it. This material is the most common flooring finish on Floor Two, and is also present in spots on Floor One. It appears that two riser locations may penetrate this material. The extent of impact to this material is likely to be only one or two square feet per location. The ceramic wall tiles in all eight restrooms throughout the building are Lead-Based Paints, as defined by 8 CCR 1532.1, et al. The majority of work in the restrooms appears to be associated with the ceiling, but all impacts to the leaded wall tile, including not only removal but also penetrations of wall tile, must be performed as lead abatement work. This item is listed for informational purposes, only, and is not expected to be impacted by project work. 				
See Table 2 for General Notes				

Table 2 - Hazardous Materials Summary – Planetarium

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
Spray-Applied Acoustic Ceiling Material	Thick Texture, Beige	Rooms 102, 103, 202 and 203	Class I F ACM	80 SF (See Note 1)
Vinyl Floor Tile & Mastic	12" Beige with Brown Specks	Rooms 107 and 204	Class I NF ACM	2 SF (See Note 2)
Mastic Dots a/w 12" Acoustic Ceiling Tile	Brown Dots	Rooms 106, 107, 110, 111, 112, 201 and 208	ACCM	90 SF (See Note 3)
There were no Lead-Based Paints identified for impacts within the Planetarium				
Fluorescent Lighting Tubes (Hg)		Lighting Throughout Building	UWR – Hg	See Note 4
Fluorescent Lighting Ballasts (PCB)		Lighting Throughout Building	UWR and PCBs	See Note 4
Thermostats w/ Mercury Switches		Thermostats	UWR - Hg	See Note 4
Batteries (Pb/Acid and Ni/Cd)		Inside Emergency Exit Signs	UWR	See Note 4
Notes to Table 2:				
<ol style="list-style-type: none"> This material has significant impacts, including installation of wiremold raceways and strobes in Rooms 102, 103 and installation of wiremold raceways in Room 202 and 203. It is recommended that the project consider wall-mounting the conduit/raceway, in these rooms, to avoid impact to the ACM acoustic ceiling material. All work that impacts the acoustic ceiling material is asbestos-related work, and must be performed in accordance with 8 CCR 1529. This material is the floor covering in Rooms 107 and 204. It appears that there may be a riser penetration within Room 204, which is likely to impact one or two tiles. Project design shows the acoustic ceiling tile being impacted in every room it is present except for Room 208. It is recommended that the project consider wall-mounting the conduit/raceway, as much as possible, in these rooms, to avoid impact to the ACM mastic beneath the acoustic ceiling tile. All work that impacts the acoustic ceiling tile is asbestos-related work, and must be performed in accordance with 8 CCR 1529. This item is listed for informational purposes, only, and is not expected to be impacted by project work. 				

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY ¹
<p>General Notes for Tables 1 and 2:</p> <p><u>ACMs</u> = Asbestos-containing materials, 1% or greater of asbestos by Polarized Light Microscopy (PLM), as defined by USEPA.</p> <p><u>ACCMs</u> = Asbestos-Containing Constructions Materials, containing asbestos at 0.1% or greater, but less than 1%, as defined by Cal/OSHA.</p> <p><u>Lead-Based Paint</u> = 1.00 milligrams per square centimeter (mg/cm²) of lead or greater is present, as defined by 17 California Code of Regulations (CCR) 35001-36100 and 8 CCR 1532.1.</p> <p><u>UWR</u> = Universal Waste Rule, as defined by California in 22 CCR 66261.9.</p> <p>SF = Square feet LF = Linear feet Pb is the atomic symbol for Lead Hg is the atomic symbol for Mercury Ni is the atomic symbol for Nickel Cd is the atomic symbol for Cadmium F = Friable NF = Non-Friable</p> <p>¹ Order of Magnitude to be impacted. These are <u>ESTIMATED</u> Quantities and Locations <u>ARE NOT</u> to be used for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing <u>PRIOR</u> to bidding.</p>				

METHODOLOGY

Vista performed a site visit on June 1 and June 2, 2017. Vista employee Andrew Schmidt performed the site visit, sampling, and prepared this report. Mr. Schmidt is a Cal/OSHA Certified Asbestos Consultant (No. 05-3791) and Lead-Related Construction Project Designer, Inspector/Assessor and Project Monitor (No. 2975 I/M/D) as issued by the State of California Department of Public Health (CDPH).

At the time of the investigation, both facilities were generally in good condition, with no significant damage observed to any of the asbestos-containing materials.

The various portions of this particular investigation were performed as follows:

Asbestos

The asbestos survey was performed generally in accordance with the AHERA protocol (40 CFR Part 763, Subpart E) and the requirements of SCAQMD Rule 1403. Visual identification was performed by assessing visible and accessible structural, architectural, and mechanical components that may be impacted as part of this specific project, for the presence of suspect ACM at the Project Site. Each identified suspect asbestos-containing material (ACM) was sampled in accordance with procedures established by the United States Environmental Protection Agency (USEPA).

Considerable historical testing data existed for this site, which Vista utilized for purposes of reducing the number of samples required for this investigation, as well as to avoid further damaging materials already adequately tested. Samples which were collected were logged on a Sampling Form (with chain-of-custody built-in), and submitted to a third-party laboratory for analysis.

The laboratory which performed the relied-upon asbestos analysis was AmeriSci Los Angeles. AmeriSci is accredited by both National Institute of Standards and Technologies' National Voluntary Laboratory Accreditation Program (NIST/NVLAP Lab No. 200346-0) and the Cal/DPH Environmental Laboratory Accreditation Program (Cal/ELAP Lab No. 2322). All samples were analyzed in accordance with NVLAP accreditation requirements, including those set forth in 40 CFR 763. Additional accreditation and methodology information can be found on the signature page of the attached laboratory report.

Quantities and locations are based upon areas that were accessed. Materials similar those in this report may be present in areas which were not accessed, such as unidentified wall or ceiling voids. Subsurface investigation was not part of this survey.

Lead

Suspect lead-containing surface coatings (LCSCs), lead-based paints (LBPs) and lead-bearing substances (LBS) were identified via visual inspection. Representative surface coatings and materials were tested by collecting paint chip samples.

This survey was a limited screening of paint for the purpose of characterizing the lead content in paint and coatings likely to be disturbed during work activities. For this purpose, paint chip analysis was used to screen for lead levels and provides results that are generally representative of typical conditions but are not inclusive of all painted/coated surfaces present at the Project Site. This survey was not a surface by surface inspection as outlined in the U.S. Department of Housing and Urban Development (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* pursuant to Title X of the Housing and Community Development Act of 1992. This analytical data can be helpful in evaluation of lead-related environmental risks in general, but cannot be used to calculate worker exposures and is not a substitute for employee exposure monitoring or waste stream sampling.

Lead-Based Paint (LBP) is defined by CDPH as any paint containing lead levels exceeding 0.5 % by weight (or 5,000 parts per million) via paint chip sampling or 1.0 milligrams per centimeter squared (mg/cm²) or greater via X-Ray Fluorescence (XRF) direct read instrument sampling. Cal/OSHA rules apply to "any detectable concentration of lead" without a specified detection level.

Due to the extensive prior testing of the painted surfaces, the number of XRF readings collected as part of this investigation was significantly lower than would normally be expected. Historical testing data is attached to this report as Appendix A.

Devices with Potential Hazardous Materials

Devices with potential hazardous Universal Waste Rule materials in the path of construction were visually identified during the survey walk through and their quantities were estimated and recorded. No attempt was made to disassemble any devices or sample suspect materials within the devices.

RESULTS

Asbestos

The results of the bulk samples collected for asbestos, and analyzed by PLM, indicate that detectable concentrations of asbestos **are present** in both of the subject structures. All identified

asbestos-containing materials are further described in Tables 1 and 2, in the Executive Summary of this report (beginning on Page 1).

The following materials were tested during this sampling episode and determined by laboratory analysis (by a NVLAP-accredited laboratory) ***not*** contain regulated levels of asbestos:

Liberal Arts Building:

1. Plaster Walls – Sand Finish (See Note 1)
2. 2' x 4' Acoustic Ceiling Tile – Fissures and Pinholes
3. 12" Acoustic Ceiling Tile and Mastic Dots – Fissures and Pinholes
4. Plaster Ceilings – Sand Finish
5. Drywall/Tape/Compound – Smooth Finish Ceilings
6. Yellow Carpet Glue
7. 2' x 4' Acoustic Ceiling Tile – Fissures and Pinholes Pattern (heavier and darker than 2)
8. Plaster Overspray – White/Grey
9. Pipe Insulation – Yellow Fiberglass with Canvas Wrap
10. Pipe Fitting (elbow) Insulation – Yellow Fiberglass with Canvas Wrap

Planetarium:

1. Drywall/Tape/Compound – Smooth Finish (See Note 1)
2. Duct Insulation – Orange Fiberglass with Foil Wrap
3. Plaster Overspray – Grey
4. Pipe Insulation – Yellow Fiberglass with Paper Wrap
5. 12" Acoustic Ceiling Tile – Textured Finish

Note 1: The sand finish plaster walls in the Liberal Arts Building and the drywall in the Planetarium each had one sample with Chrysotile Asbestos detected at <1%. Both of the subject samples were subjected to a 1,000-point point-count analysis, at which time it was determined that both materials contained asbestos at concentrations less than 0.1%, and the subject materials are not regulated asbestos-containing materials.

Lead

The results for this survey indicate that building components and respective surface coatings had lead concentrations defining them as LBPs, in accordance with 17 CCR 35001 et. seq., and 8 CCR 1532.1. All identified lead-based paints are further described in Table 1, in the Executive Summary of this report (beginning on Page 1).

The results for this survey indicate that the following building components and respective surface coatings had lead concentrations, in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1:

- ❖ All Remaining Surfaces

Refer to the *Recommendations Section*, below, for clarifications regarding lead-related construction.

Devices with Potential Hazardous Materials

The results of the visual inspection indicate that devices with other regulated waste materials **were identified** within the areas to be impacted by this project. These devices include fluorescent lighting assemblies (tubes and ballasts) located throughout the subject building, as well as batteries located within emergency exit signs found within the building.

CONCLUSIONS AND RECOMENDATIONS

Asbestos

The results of the survey indicate that asbestos-containing materials **are present** in the anticipated path of construction at the Project Site. Please refer to Tables 1 and 2 in the Executive Summary Table for a listing of all asbestos-containing materials identified on-site.

Work performed during any activities (i.e. drilling, cutting, sanding, scraping) that disturb the asbestos-containing materials identified in this report must be done in compliance with the most recent edition of all applicable federal, state, and local regulations, standards, and codes governing abatement, transport, and disposal of asbestos-containing materials.

Materials encountered in the building that are not part of this report must be properly sampled for the content of asbestos or assumed to be asbestos containing prior to any disturbance.

Prior to activities which will disturb identified or assumed ACM, a Cal/OSHA registered and California licensed asbestos contractor must be utilized for abatement of ACM that will be impacted. VEC recommends that all abatement operations be conducted under the direction of a California Certified Asbestos Consultant.

Removal of ≥ 100 square feet of identified or suspected asbestos-containing materials requires a 14 calendar day written notification to the South Coast Air Quality Management District (SCAQMD) in accordance with Rule 1403, and notification to Cal/OSHA in writing at least 24 hours prior to the initiation of such activities.

Notification to employees and contractors working within the building should be made in accordance with the California Health and Safety Code, Section 25915 *et. seq.* and Proposition 65.

A follow-up demolition survey may be required for materials which were assumed to contain asbestos and were not destructively tested due to occupancy issues. This testing, if desired, should be performed prior to the initiation of demolition activities.

Lead

“OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminants. Without air monitoring results or without the benefit of historical or objective data (including air sampling which clearly demonstrates that the employee cannot be exposed above the action level during any process, operation, or activity) the analysis of bulk or surface samples cannot be used to determine employee exposure.”- OSHA Standard Interpretation May 8, 2000.

OSHA states that these rules apply to “any detectable concentration of lead” without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 90 parts per million (ppm) or 0.009 wt% of lead, the variation of lead content due to aging and weathering, and the variation of detection limits associated with analysis of bulk materials, such as paint chips and surface content analysis via XRF, it is recommended that all painted or coated surfaces be treated as potentially containing lead.

Positive analytical results by either method can be used to indicate that detectable lead is present but negative results cannot be interpreted as conclusively demonstrating the absence of lead.

Analytical data from analysis of bulk materials or surface content of lead can be helpful in evaluation of lead-related environmental risks in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring.

As a result of the above, any employee that works around potential lead-based or lead-containing coatings must have HAZCOM training and personal exposure air monitoring is additionally required for employees that disturb such coatings. Significant additional certification, notification, and work practices are required for materials found to be lead-based.

All activities involving potential and identified lead-containing surfaces should be conducted in accordance with California Health & Safety Code sections 17920.10 and 10525, 10525.7, and 8, CCR 1532.1.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.

In addition, all activities involving identified lead-based paints (LBP) must be conducted in accordance with 17 CCR Sections 35001 through 36100, and 8 CCR 1532.1, both of which prescribe the use of CDPH-certified workers, work practices, and other requirements.

Written notification to Cal/OSHA must be accomplished should LBP activities involve equal to or more than 100 square feet or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1.

Waste stream segregation and analysis is required in accordance with 22 CCR Division 4.5, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes for all paint or coating debris regardless of if the paint or coating is intact.

The resulting wastes may be hazardous under California and federal RCRA standards for lead and therefore require proper handling, packaging, labeling, and transportation under a proper manifest to a permitted hazardous waste storage, treatment and disposal facility.

Devices with Potential Hazardous Materials

It does not appear that any of these materials (Universal Waste Rule or potentially PCB-containing ballasts) are to be impacted by the project work. In the event that they are, please adhere to the following recommendations.

All potential and identified Universal Waste Rule materials (UWR) impacted by the work should be removed and recycled or disposed of in accordance with the UWR guidelines established by the DTSC, as stated in 22 CCR Sections 66261.9 and 66273.1 thru 66273.90. UWR materials include, non-incandescent lamps and batteries located inside emergency exit signs.

Vista's limited visual survey indicated that light fixtures with ballasts that may contain PCB oil are present. However, due to the limited nature of the random spot checks, Vista recommends that all ballasts be visually inspected, prior to disposal, to determine if they contain PCB's.

Those ballasts marked No PCB's or PCB Free can be considered as such. All PCB-containing devices should be removed or have the oils removed, properly handled, collected, transported and recycled or disposed of by an approved recycling or disposal facility in accordance with the requirements of Title 22 CCR 67426.1 and 40 CFR 761.

All non-PCB oil filled and dry type electronic ballasts should be removed, properly handled, collected, transported and recycled.

Devices containing ozone depleting chemicals, paints, stains, oils and other chemicals should be collected, waste characterized, disposed or recycled according to Local, State, and Federal rules and regulations, prior to demolition or deconstruction activities at the Project Site.

LIMITATIONS AND EXCLUSIONS

The survey performed was limited to accessible, hazardous materials and the testing of representative areas as designated by the San Bernardino Community College District. Subsurface investigations were not included as part of this investigation, nor were areas outside of the specific areas identified in this scope of work.

All material quantities reported herein are rough order of magnitude estimates and should not be used for bidding purposes. All contractors are responsible for accurately determining quantities and locations of materials identified in this report.

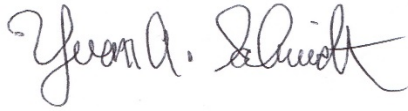
Findings, conclusions, recommendations and analytical data offered in this report have been derived from reviewing existing information provided by the client, visual survey of the accessible building materials and systems, and the outcome of sampling and analysis of suspected hazardous materials.

If materials having characteristics in common with those identified in this report or if other forms of suspect hazardous materials are discovered during work activities, maintenance personnel and/or contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel.

This report is appended as outlined below. All testing data is contained therein.

If you have any questions or concerns regarding the information contained in this report, please contact me at 714.746.7644.

Respectfully Submitted,
Vista Environmental Consulting

A handwritten signature in black ink, appearing to read "Yvan A. Schmidt". The signature is fluid and cursive, with the first name "Yvan" being the most prominent.

Yvan A. Schmidt
Senior Project Manager
Cal/OSHA Certified Asbestos Consultant No. 05-3791
Cal/DPH Lead Certification No. 2975 I/M/D

Appendices

- A - Asbestos Laboratory Report
- B - Testing Location Sketches
- C - XRF Testing Data
- D - Consultant Certifications

**ATTACHMENT A -
ASBESTOS ANALYTICAL REPORT (PLM)**



AmeriSci Los Angeles

24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Vista Environmental Consulting, Inc
Attn: Michael Cardone
1054 N. Tustin Avenue

Anaheim, CA 92807

Date Received 06/05/17 **AmeriSci Job #** 917061113
Date Examined 06/07/17 **P.O. #**
Page 1 **of** 8
RE: 170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-A-01 A	917061113-01 Location: Plaster Walls / Sand Finish / Inside Panel Corridor 201	Yes	Trace (<1 %) (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White/Gold, Heterogeneous, Fibrous, Plaster Asbestos Types: Chrysotile <1. % Other Material: Non-fibrous 100 %			
LA-A-02 A	917061113-02 Location: Plaster Walls / Sand Finish / 209, NW Corner, At Switch Plate	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-A-03 A	917061113-03 Location: Plaster Walls / Sand Finish / 03, East Wall Large Damaged Spot	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-A-04 A	917061113-04 Location: Plaster Walls / Sand Finish / 247, East Side Of North Wall, Exiting Hole	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Heterogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-A-05 A	917061113-05 Location: Plaster Walls / Sand Finish / 121, East Wall	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Homogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-A-06 A	917061113-06 Location: Plaster Walls / Sand Finish / 191, At Ceiling, NE Corner	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Homogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-A-07 A	917061113-07 Location: Plaster Walls / Sand Finish / 153, At South Wall To Ceiling Joint	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Homogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-B-01 B	917061113-08 Location: 2x4 ACP / Fissures & Pin Holes / 216, NE Corner (Next To Missing Tiles)	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Perlite 40 %			
LA-B-02 B	917061113-09 Location: 2x4 ACP / Fissures & Pin Holes / 205, Above Counter	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Perlite 40 %			
LA-B-03 B	917061113-10 Location: 2x4 ACP / Fissures & Pin Holes / 156, NW Corner Of Office	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Non-fibrous 40 %			
LA-C-01 C	917061113-11.1 Location: 12" ACT / Glue On Fissures & Pinhole / 201, Outside 209, At Missing Tile	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Heterogeneous, Fibrous, 12" ACT Asbestos Types: Other Material: Cellulose 65 %, Mineral Wool 35 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-C-01 C	917061113-11.2 Location: 12" ACT / Glue On Fissures & Pinhole / 201, Outside 209, At Missing Tile	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Brown, Homogeneous, Non-Fibrous, Glue Asbestos Types: Other Material: Non-fibrous 100 %			
LA-C-02 C	917061113-12.1 Location: 12" ACT / Glue On Fissures & Pinhole / 124, NE Corner	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Heterogeneous, Fibrous, 12" ACT Asbestos Types: Other Material: Cellulose 60 %, Mineral Wool 40 %			
LA-C-02 C	917061113-12.2 Location: 12" ACT / Glue On Fissures & Pinhole / 124, NE Corner	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Glue Asbestos Types: Other Material: Fibrous Talc 3 %, Non-fibrous 97 %			
LA-C-03 C	917061113-13.1 Location: 12" ACT / Glue On Fissures & Pinhole / 221, South End	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Heterogeneous, Fibrous, 12" ACT Asbestos Types: Other Material: Cellulose 60 %, Mineral Wool 40 %			
LA-C-03 C	917061113-13.2 Location: 12" ACT / Glue On Fissures & Pinhole / 221, South End	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Glue Asbestos Types: Other Material: Fibrous Talc 3 %, Non-fibrous 97 %			
LA-D-01 D	917061113-14 Location: Hard Lid # 1 / Sand Finish Plaster / 201, Outside 209, At Missing Tile	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Sand Finish Plaster Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-D-02 D	917061113-15 Location: Hard Lid # 1 / Sand Finish Plaster / 191, NE Corner Of Ceiling	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Sand Finish Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-D-03 D	917061113-16 Location: Hard Lid # 1 / Sand Finish Plaster / 141, North End	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Sand Finish Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
LA-E-01 E	917061113-17.1 Location: Hard Lid # 2 / D/T/C w/Orange Peel Finish (Not Separable) / 134, At Vent	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 %			
LA-E-01 E	917061113-17.2 Location: Hard Lid # 2 / D/T/C w/Orange Peel Finish (Not Separable) / 134, At Vent	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: White, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 3 %, Gypsum 97 %			
LA-E-02 E	917061113-18 Location: Hard Lid # 2 / D/T/C w/Orange Peel Finish (Not Separable) / 183, At Vent	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 % Comment: No Drywall Present			

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-E-03 E	917061113-19.1 Location: Hard Lid # 2 / D/T/C w/Orange Peel Finish (Not Separable) / 273, At Vent	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 %			
LA-E-03 E	917061113-19.2 Location: Hard Lid # 2 / D/T/C w/Orange Peel Finish (Not Separable) / 273, At Vent	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall Asbestos Types: Other Material: Gypsum 100 %			
LA-F-01 F	917061113-20 Location: Carpet Glue / Yellow / 216, SW Entry Hall	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Carpet Glue Asbestos Types: Other Material: Non-fibrous 100 %			
LA-G-01 G	917061113-21.1 Location: 12" VFT/M / Beige w/Black Mastic / Room 209, In Door Swing	Yes	2 % (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Cream/Tan, Heterogeneous, Non-Fibrous, Cementitious, 12" VFT Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
LA-G-01 G	917061113-21.2 Location: 12" VFT/M / Beige w/Black Mastic / Room 209, In Door Swing	Yes	Trace (<1 %) (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile <1. % Other Material: Non-fibrous 100 %			
LA-H-01 H	917061113-22 Location: 2x4 ACP / Fiss & Pin (Heavier And Darker Than B) / 205, North Side	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Dark Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Perlite 40 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-H-02 H	917061113-23 Location: 2x4 ACP / Fiss & Pin (Heavier And Darker Than B) / 209, South Side	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Dark Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Perlite 40 %			
LA-H-03 H	917061113-24 Location: 2x4 ACP / Fiss & Pin (Heavier And Darker Than B) / 106, At Damage Spot In Middle	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Dark Beige/White, Heterogeneous, Fibrous, 2x4 ACP Asbestos Types: Other Material: Cellulose 60 %, Perlite 40 %			
LA-I-01 I	917061113-25 Location: Overspray (Plaster) / White / Grey, Hard / 209, SW Corner Above Drop Ceiling	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Overspray (Plaster) Asbestos Types: Other Material: Non-fibrous 100 %			
LA-I-02 I	917061113-26 Location: Overspray (Plaster) / White / Grey, Hard / 135, Above Access Hatch	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Overspray (Plaster) Asbestos Types: Other Material: Non-fibrous 100 %			
LA-I-03 I	917061113-27 Location: Overspray (Plaster) / White / Grey, Hard / 184, Above Access	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Overspray (Plaster) Asbestos Types: Other Material: Non-fibrous 100 %			
LA-J-01 J	917061113-28 Location: Pipe Insulation / Yellow FG w/Canvas Wrap / Room 209, SW Corner Above Lid	No	NAD (by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Pipe Insulation Asbestos Types: Other Material: Cellulose 40 %, Fibrous glass 60 %			

See Reporting notes on last page

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

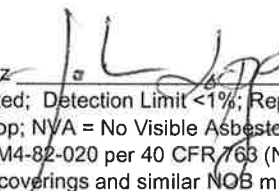
Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LA-J-02 J	917061113-29	No	NAD
Location: Pipe Insulation / Yellow FG w/Canvas Wrap / 02, East End Of Chilled Supply			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 50 %			
LA-J-03 J	917061113-30	No	NAD
Location: Pipe Insulation / Yellow FG w/Canvas Wrap / 03, Overhead Chilled Supply, East Damage			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 20 %, Fibrous glass 80 %			
LA-K-01 K	917061113-31	No	NAD
Location: "Hard Pack" Elbows / Firm Yellow FG w/Canvas Wrap / 209, SW Corner, Above Lid			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Elbow Insulation			
Asbestos Types:			
Other Material: Cellulose 30 %, Fibrous glass 70 %			
LA-K-02 K	917061113-32	No	NAD
Location: "Hard Pack" Elbows / Firm Yellow FG w/Canvas Wrap / 025, Above Boiler			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 30 %, Fibrous glass 70 %			
LA-K-03 K	917061113-33	No	NAD
Location: "Hard Pack" Elbows / Firm Yellow FG w/Canvas Wrap / 135, Above Access (5' South)			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Yellow/Cream, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 40 %, Fibrous glass 60 %			
LA-L-01 L	917061113-34	Yes	2 %
Location: Hard Pack Elbows # 2 / Grey Packing w/Canvas Wrap / 129, West Side Overhead			(by CVES) by John A. Lopez on 06/07/17
Analyst Description: Beige, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			

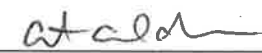
Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Liberal Arts Bldg.

Reporting Notes:

Analyzed By: John A. Lopez ; Date Analyzed: 6/7/2017 6-7-17
*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NYA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

01700113



Asbestos Bulk Sample Log

Sacramento Oakland Monterey Anaheim San Diego

Client: SBVC ~~AMM~~

Date: 1 June 2017

Site/Location: Liberal Arts Bldg.

Project Number: 17 0246 001

Sampled By: Y. Schmidt

CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)
LA	(A)	01	Plaster Walls	Sand Finish	Inside Panel. Corridor 201	
↓	↓	02	↓	↓	209, NW corner, at switch plate	
↓	↓	03	↓	↓	03, East Wall, leakage damage spdt	
↓	↓	04	↓	↓	247, East side of North Wall, existing hole	
↓	↓	05	↓	↓	121, East wall	
↓	↓	06	↓	↓	191, Ceiling, NE corner	
↓	↓	07	↓	↓	153, at south wall to Ceiling Joint	
↓	(B)	01	2x4 ACP	Fissures & Potholes	216, NE corner (not to missing tiles)	
↓	↓	02	↓	↓	205, Above counter	
↓	↓	03	↓	↓	156, NW corner of office	

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. Y. Schmidt Project Manager
Signature Title

6/1/17 - 6/2/17
Inclusive Dates

2. _____
Signature Title

6/5/17 @ 1315
Inclusive Dates

91706113



Asbestos Bulk Sample Log

Sacramento
 Oakland
 Monterey
 Anaheim
 San Diego

Client: SBVC

Date: 1 June 2017

Site/Location: Libow Arts Bldg.

Project Number: 17 0246 001

Sampled By: Y. Schmidt

CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)
LA	(C)	01	12" ACT	Gle-dg Splice & Pinholes	201, outside 209, at missing tile	
	↓	02	↓	↓	124, NE corner	
	↓	03	↓	↓	221, South end	
	(D)	01	HardLid #1	Sand Finish Plaster	201, outside 209, at missing tile	
	↓	02	↓	↓	191, NE corner of ceiling	
	↓	03	↓	↓	141, North end	
	(E)	01	HardLid #2	D/H/C w/ Orange Peel Finish (NOT Spindle)	134, at vent	
	↓	02	↓	↓	183, at vent	
	↓	03	↓	↓	273, at vent	
	(F)	01	Carpet Glue	Yellow	216, SW entry hall	

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. Y. Schmidt Project Manager

Signature

Title

6/1/17 - 6/2/17

Inclusive Dates

2. _____

Signature

Title

6/5/17 @ 1312

Inclusive Dates

91706113



Asbestos Bulk Sample Log

Sacramento Oakland Monterey Anaheim San Diego

Client: SBVC

Date: 1 June 2017

Site/Location: Liberal Arts Bldg.

Project Number: 17 0246 001

Sampled By: Y. Schmidt

CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)
LA	(K)	01	"Hard Pack" Elbows	Firm Yellow F& w/ Canvas wrap	209, SW corner, above lid	
		02			02, above Boiler	
		03			135, above access (5' south)	
	(L)	01	Hard Pack Elbows # 2	Grey Packing w/ Canvas wrap	129, West side, overhead	2 elbows 1 T fitting
			34	Samples		

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. [Signature] Project Manager
Signature Title

2. [Signature] _____
Signature Title

6/1/17 - 6/4/17
Inclusive Dates

6/5/17 @ 1315
Inclusive Dates



AmeriSci Los Angeles

24416 S. Main Street, Ste 308
Carson, California 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Vista Environmental Consulting, Inc
Attn: Michael Cardone
1054 N. Tustin Avenue

Anaheim, CA 92807

Date Received 06/07/17 **AmeriSci Job #** 917061221
Date Examined 06/09/17 **P.O. #**
Page 1 of 1
RE: 170246001; SBVC; Liberal Arts Bldg.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
------------------	---------	------------------	------------------

LA-A-01 A	917061221-01 Location: Plaster Walls / Sand Finish / Inside Panel Corridor 201	Yes	Trace (<0.1 % pc) ¹ (by 1000 pt ct) by Arturo A. Aldana on 06/09/17
--------------	--	------------	---

Analyst Description: Beige/White/Gold, Heterogeneous, Fibrous, Plaster

Asbestos Types: Chrysotile <0.1 % pc

Other Material: Non-Asbestos/Inert 63.3 %

Comment: Heat Sensitive (organic): 6.8%; Acid Soluble (inorganic): 29.9%; Inert (Non-asbestos): 63.3%

Reporting Notes:

(1) 1000 Point Count Analysis performed on Inert Residue remaining after 480C heat and HCl acid treatments

Analyzed By: Arturo A. Aldana at alda; Date Analyzed: 6/9/2017 6/9/17

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: at alda

917061221

Subject: RE: 917061113 - 170246001 SBVC LIBERAL ARTS BLDG
From: Andrew Schmidt <andrew.schmidt@vista-env.com>
Date: 6/7/2017 2:31 PM
To: ameriscila@amerisci.com
CC: gmassey@amerisci.com, 'Mary David' <mdavid@amerisci.com>

Glenn/Mary,

Please subject sample A-01 to a 1,000-point point-count, with a 48 hour turnaround.

Thank you,

Andrew Schmidt

Senior Project Manager
Vista Environmental Consulting
1054 North Tustin Avenue
Anaheim, CA 92807
Phone: 714-289-2600
Mobile: 714-746-7644
Email: andrew.schmidt@vista-env.com
Website: www.vista-env.com

From: AmeriSci LA [mailto:ameriscila@amerisci.com]
Sent: Wednesday, June 07, 2017 2:27 PM
To: mikecardone@vista-env.com; mike@vista-env.com; andrew.schmidt@vista-env.com;
socialadmin@vista-env.com
Subject: 917061113 - 170246001 SBVC LIBERAL ARTS BLDG

Rec'd By: psoner 6/7/17 @ 15:10



AmeriSci Los Angeles

24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Vista Environmental Consulting, Inc
Attn: Michael Cardone
1054 N. Tustin Avenue

Anaheim, CA 92807

Date Received 06/05/17 **AmeriSci Job #** 917061112
Date Examined 06/07/17 **P.O. #**
Page 1 **of** 6
RE: 170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-A-01 A	917061112-01 Location: D/T/C / Smooth Finish / 104, East Wall, Outside 105	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Fibrous glass 2 %, Non-fibrous 98 %			
P-A-02 A	917061112-02.1 Location: D/T/C / Smooth Finish / Attic, East Wall, At Door To 207	Yes	Trace (<1 %) (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Chrysotile <1. % Other Material: Non-fibrous 100 %			
P-A-02 A	917061112-02.2 Location: D/T/C / Smooth Finish / Attic, East Wall, At Door To 207	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 15 %, Non-fibrous 85 %			
P-A-03 A	917061112-03 Location: D/T/C / Smooth Finish / 204, Wall At Stairs	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 %			
P-B-01 B	917061112-04.1 Location: 12" VFT / M / Beige w/Brown Specks / 204, Damaged Spot To South	Yes	2 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			

PLM Bulk Asbestos Report

170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-B-01 B	917061112-04.2 Location: 12" VFT / M / Beige w/Brown Specks / 204, Damaged Spot To South	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
P-B-02 B	917061112-05.1 Location: 12" VFT / M / Beige w/Brown Specks / 107, NW Door, Swing Area	Yes	2 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
P-B-02 B	917061112-05.2 Location: 12" VFT / M / Beige w/Brown Specks / 107, NW Door, Swing Area	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
P-B-03 B	917061112-06.1 Location: 12" VFT / M / Beige w/Brown Specks / 204, NE Corner	Yes	2 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
P-B-03 B	917061112-06.2 Location: 12" VFT / M / Beige w/Brown Specks / 204, NE Corner	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
P-C-01 C	917061112-07 Location: SAACM / Thick Texture, Beige / 103, Above Stairs	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Acoustic Ceiling Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			

PLM Bulk Asbestos Report

170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-C-02 C	917061112-08 Location: SAACM / Thick Texture, Beige / 203, SW Corner	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Acoustic Ceiling Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
P-C-03 C	917061112-09 Location: SAACM / Thick Texture, Beige / 202, SE Corner	Yes	4 % (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Beige, Homogeneous, Non-Fibrous, Acoustic Ceiling Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
P-D-01 D	917061112-10 Location: Duct Insulation / Orange FG w/Foil Wrap / 205, Duct Near Door	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Brown/Yellow, Heterogeneous, Fibrous, Duct Insulation Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 65 %, Non-fibrous 20 %			
P-D-02 D	917061112-11 Location: Duct Insulation / Orange FG w/Foil Wrap / 204, Just North Of Access	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Brown/Yellow, Heterogeneous, Fibrous, Duct Insulation Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 65 %, Non-fibrous 20 %			
P-D-03 D	917061112-12 Location: Duct Insulation / Orange FG w/Foil Wrap / 204, East Of Access Hatch	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Brown/Yellow, Heterogeneous, Fibrous, Duct Insulation Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 65 %, Non-fibrous 20 %			
P-E-01 E	917061112-13 Location: Overspray / Hood Grey Plaster / A Top Access Panel In 204	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-E-02 E	917061112-14 Location: Overspray / Hood Grey Plaster / 204, North Of Access Panel	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
P-E-03 E	917061112-15 Location: Overspray / Hood Grey Plaster / 204, South Of Access Panel	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
P-F-01 F	917061112-16.1 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 111, NW Corner, At Door	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Grey, Homogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 55 %, Fibrous glass 15 %, Non-fibrous 30 %			
P-F-01 F	917061112-16.2 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 111, NW Corner, At Door	Yes	Trace (<1 %) (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
P-F-02 F	917061112-17.1 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 201, Above Landing	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: White/Grey, Homogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 55 %, Fibrous glass 15 %, Non-fibrous 30 %			
P-F-02 F	917061112-17.2 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 201, Above Landing	Yes	Trace (<1 %) (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-F-03 F	917061112-18.1 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 208, Landing	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: White/Grey, Homogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 55 %, Fibrous glass 15 %, Non-fibrous 30 %			
P-F-03 F	917061112-18.2 Location: 12" ACT / Fissures & Pinholes w/Brown Dots / 208, Landing	Yes	Trace (<1 %) (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
P-G-01 G	917061112-19 Location: Pipe Insulation / Yellow FG w/Canvas Wrap / 204, North End, Bright Wrap	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Beige/Yellow, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 15 %, Fibrous glass 45 %, Non-fibrous 40 %			
P-G-02 G	917061112-20 Location: Pipe Insulation / Yellow FG w/Canvas Wrap / 204, North End Dirty Wrap	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Beige/Yellow, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 15 %, Fibrous glass 55 %, Non-fibrous 30 %			
P-G-03 G	917061112-21 Location: Pipe Insulation / Yellow FG w/Canvas Wrap / 112, Above Lid, North End	No	NAD (by CVES) by Paola Ducoing on 06/07/17
Analyst Description: Silver/Beige/Yellow, Heterogeneous, Fibrous, Pipe Insulation			
Asbestos Types:			
Other Material: Cellulose 15 %, Fibrous glass 65 %, Non-fibrous 20 %			

Client Name: Vista Environmental Consulting, Inc

PLM Bulk Asbestos Report

170246001; SBVC; Planetarium

Reporting Notes:

Analyzed By: Paola Ducoing ; Date Analyzed: 6/7/2017 6/7/17

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

Asbestos Bulk Sample Log

Sacramento
 Oakland
 Monterey
 Anaheim
 San Diego

Client: SBVC

Date: 2 June 2017

Site/Location: Planetarium

Project Number: 17 0246 001

Sampled By: Y. Schmidt

CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)	
P	(A)	01	P/H/C	Smooth Finish	104, East Wall, outside 105		
		02			Attic, East wall, at door to 207		
		03			204, wall at stairs		
	(B)	01	12" VFT/M	Beige w/ Brown Specks	204, damaged spot to South		
		02			107, NW door, swing area		
		03			204, NE corner		
	(C)	01	SAACM	Thick texture, Beige	103, above stairs		
		02			203, SW corner		
		03			202, SE corner		
	↓	(D)	01	Duct Insulation	Orange FG w/ Foil Wrap	205, duct near door	

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. Y. Schmidt Project Manager
Signature Title

2 June 2017
Inclusive Dates

2. _____
Signature Title

6/5/17 @ 135
Inclusive Dates

Asbestos Bulk Sample Log

Sacramento
 Oakland
 Monterey
 Anaheim
 San Diego

Client: SBVC
 Site/Location: Planetarium
 Sampled By: Y. Schmidt

Date: 2 June 2017
 Project Number: 17 0246 001
 CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)
P	(D)	02	Duct Insulation	Orange Fg w/ Foil wrap	204, just North of access	
	↓	03	↓	↓	204, East of access hatch	
	(E)	01	Overspray	Hard Grey Plaster	Atop access panel in 204	
	↓	02	↓	↓	204, North of access panel	
	↓	03	↓	↓	204, South of access panel	
	(F)	01	12" ACT	Fissures & Pinholes, w/ Brown dots	111, NW corner at door	
	↓	02	↓	↓	201, above landing	
	↓	03	↓	↓	208, landing	
	(G)	01	Pipe Insulation	Yellow Fg w/ Canvas wrap	204, North end, bright wrap	
	↓	02	↓	↓	204, North end, dirty wrap	

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. _____ Project Manager
 Signature Title
 2. [Signature]
 Signature Title

Inclusive Dates
6/5/17 @ 1315
 Inclusive Dates

917060112



VISTA ENVIRONMENTAL CONSULTING

Asbestos Bulk Sample Log

Sacramento Oakland Monterey Anaheim San Diego

Client: SBVC

Date: 2 June 2017

Site/Location: Planetarium

Project Number: 17 0246 001

Sampled By: Y. Schmidt

CAC/CSST Number: 05-3791 (CAC)

Building	Area ID	Number	Material	Description	Location	Quantity (sf/lf/ea)
P	ⓐ	03	Pipe Insulation	Yellow Fg w/ Canvas Wrap	112, above lid, North end	
			21 Samples			

Analytical Method: PLM Turnaround Time: Same Day 24hr 48 HR 3 day

Data Sent To: Via E-Mail: andrew.schmidt@vista-env.com Questions call: (714) 746-7644

Special Instructions: _____

CHAIN OF CUSTODY:

1. Y. Schmidt Project Manager
Signature Title

2 June 2017
Inclusive Dates

2. _____
Signature Title

6/5/17 @ 1315
Inclusive Dates



AmeriSci Los Angeles

24416 S. Main Street, Ste 308

Carson, California 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Vista Environmental Consulting, Inc
Attn: Michael Cardone
1054 N. Tustin Avenue

Anaheim, CA 92807

Date Received 06/07/17 **AmeriSci Job #** 917061220
Date Examined 06/09/17 **P.O. #**
Page 1 of 1
RE: 170246001; SBVC; Planetarium

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
P-A-02 A	917061220-01.1 Location: D/T/C / Smooth Finish / Attic, East Wall, At Door To 207	Yes	Trace (<0.1 % pc) ¹ (by 1000 pt ct) by Arturo A. Aldana on 06/09/17

Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound

Asbestos Types: Chrysotile <0.1 % pc

Other Material: Non-Asbestos/Inert 25.3 %

Comment: Heat Sensitive (organic): 16.1%; Acid Soluble (inorganic): 58.5%; Inert (Non-asbestos): 25.3%

Reporting Notes:

(1) 1000 Point Count Analysis performed on Inert Residue remaining after 480C heat and HCl acid treatments

Analyzed By: Arturo A. Aldana *at ald*; Date Analyzed: 6/9/2017 *6/9/17*

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: *at ald*

917061120

Subject: RE: 917061112 - 170246001 SBVC PLANETARIUM
From: Andrew Schmidt <andrew.schmidt@vista-env.com>
Date: 6/7/2017 2:33 PM
To: ameriscila@amerisci.com
CC: gmassey@amerisci.com, 'Mary David' <mdavid@amerisci.com>

Glenn/Mary,

Please subject the joint compound only from sample A-02 to a 1,000-point point-count analysis, with a 48 hour turnaround.

Thank you,

Andrew Schmidt
Senior Project Manager
Vista Environmental Consulting
1054 North Tustin Avenue
Anaheim, CA 92807
Phone: 714-289-2600
Mobile: 714-746-7644
Email: andrew.schmidt@vista-env.com
Website: www.vista-env.com

From: AmeriSci LA [mailto:ameriscila@amerisci.com]
Sent: Wednesday, June 07, 2017 2:22 PM
To: mikecardone@vista-env.com; mike@vista-env.com; andrew.schmidt@vista-env.com; socialadmin@vista-env.com
Subject: 917061112 - 170246001 SBVC PLANETARIUM

Rec'd By: psonu 6/7/17 15.10

**ATTACHMENT B –
SAMPLING LOCATION SKETCHES**

**ATTACHMENT C-
XRF TESTING DATA**

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
1	ShutterCal										3.56
2	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
3	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
4	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
5	WALL PANEL	CONCRETE	INTACT	D	PINK	216	2	LIBERAL ARTS	SBVC	Negative	0.01
6	WALL PANEL	CONCRETE	INTACT	A	MULTI	216	2	LIBERAL ARTS	SBVC	Negative	0.03
7	WALL PANEL	CONCRETE	INTACT	A	MULTI	216	2	LIBERAL ARTS	SBVC	Negative	0.01
8	WALL PANEL	CONCRETE	INTACT	A	PINK	216	2	LIBERAL ARTS	SBVC	Negative	0.05
9	WALL PANEL	CONCRETE	INTACT	A	PINK	216	2	LIBERAL ARTS	SBVC	Negative	0.01
10	WALL	PLASTER	INTACT	B	WHITE	216	2	LIBERAL ARTS	SBVC	Negative	0
11	CEILING	PLASTER	INTACT	D	WHITE	216	2	LIBERAL ARTS	SBVC	Negative	0
12	CEILING	ACP	INTACT	B	WHITE	216	2	LIBERAL ARTS	SBVC	Negative	0
13	CEILING	ACP	INTACT	MID	WHITE	205A	2	LIBERAL ARTS	SBVC	Negative	0
14	WALL	PLASTER	INTACT	D	WHITE	205A	2	LIBERAL ARTS	SBVC	Negative	0
15	WALL	PLASTER	INTACT	B	WHITE	205A	2	LIBERAL ARTS	SBVC	Negative	0
16	WALL	PLASTER	INTACT	C	WHITE	205A	2	LIBERAL ARTS	SBVC	Negative	0.02
17	WALL	PLASTER	INTACT	D	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0
18	WALL	PLASTER	INTACT	C	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0.01
19	CEILING	ACP	INTACT	D	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0.01
20	CEILING	ACP	INTACT	D	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0
21	CEILING	ACP	INTACT	C	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0
22	CEILING	ACP	INTACT	MID	WHITE	205	2	LIBERAL ARTS	SBVC	Negative	0
23	CEILING	ACP	INTACT	B	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0
24	CEILING	ACP	INTACT	D	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0
25	CEILING	ACP	INTACT	MID	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0
26	WALL	CONCRETE	INTACT	C	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.01
27	WALL	CONCRETE	INTACT	C	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.01
28	WALL	PLASTER	INTACT	A	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.02
29	WALL	PLASTER	INTACT	A	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.03
30	PANEL E2	METAL	INTACT	A	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.01
31	PANEL E2	METAL	INTACT	A	WHITE	201	2	LIBERAL ARTS	SBVC	Negative	0.03
32	WALL	CONCRETE	INTACT	A	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0.01
33	WALL	CONCRETE	INTACT	A	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
34	CEILING	ACP	INTACT	A	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0.01
35	CEILING	ACP	INTACT	MID	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0
36	T GRID	METAL	INTACT	MID	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0
37	T GRID	METAL	INTACT	A	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0
38	T GRID	METAL	INTACT	C	WHITE	209	2	LIBERAL ARTS	SBVC	Negative	0
39	T GRID	METAL	INTACT	C	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.03
40	T GRID	METAL	INTACT	A	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.01
41	CEILING	ACP	INTACT	A	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0
42	WALL	CONCRETE	INTACT	A	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.01
43	WALL	PLASTER	INTACT	B	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.01
44	WALL	CONCRETE	INTACT	C	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.01
45	WALL	PLASTER	INTACT	D	WHITE	208	2	LIBERAL ARTS	SBVC	Negative	0.01
46	WALL	PLASTER	INTACT	C	BEIGE	237	2	LIBERAL ARTS	SBVC	Negative	0.01
47	CEILING	PLASTER	INTACT	C	BEIGE	237	2	LIBERAL ARTS	SBVC	Negative	0.03
48	CEILING	PLASTER	INTACT	C	BEIGE	236	2	LIBERAL ARTS	SBVC	Negative	0
49	WALL	PLASTER	INTACT	C	BEIGE	236	2	LIBERAL ARTS	SBVC	Negative	0
50	E PANEL	METAL	INTACT	C	BEIGE	236	2	LIBERAL ARTS	SBVC	Negative	0.01
51	WALL	PLASTER	INTACT	A	WHITE	239	2	LIBERAL ARTS	SBVC	Negative	0.02
52	WALL	PLASTER	INTACT	C	WHITE	239	2	LIBERAL ARTS	SBVC	Negative	0.01
53	WALL	PLASTER	INTACT	C	WHITE	239	2	LIBERAL ARTS	SBVC	Negative	0.01
54	CEILING	PLASTER	INTACT	MID	WHITE	239	2	LIBERAL ARTS	SBVC	Negative	0
55	CEILING	ACP	INTACT	MID	WHITE	246	2	LIBERAL ARTS	SBVC	Negative	0.01
56	WALL	PLASTER	INTACT	A	WHITE	246	2	LIBERAL ARTS	SBVC	Negative	0.01
57	WALL	PLASTER	INTACT	C	WHITE	246	2	LIBERAL ARTS	SBVC	Negative	0
58	WALL	PLASTER	INTACT	A	WHITE	247	2	LIBERAL ARTS	SBVC	Negative	0
59	WALL	PLASTER	INTACT	C	WHITE	247	2	LIBERAL ARTS	SBVC	Negative	0
60	CEILING	ACP	INTACT	MID	WHITE	247	2	LIBERAL ARTS	SBVC	Negative	0.01
61	T GRID	METAL	INTACT	MID	WHITE	247	2	LIBERAL ARTS	SBVC	Negative	0
62	CEILING	PLASTER	INTACT	D	WHITE	248	2	LIBERAL ARTS	SBVC	Negative	0
63	WALL	PLASTER	INTACT	D	WHITE	248	2	LIBERAL ARTS	SBVC	Negative	0.01
64	WALL	PLASTER	INTACT	B	WHITE	248	2	LIBERAL ARTS	SBVC	Negative	0.01
65	WALL	CONCRETE	INTACT	A	WHITE	248	2	LIBERAL ARTS	SBVC	Negative	0
66	WALL	PLASTER	INTACT	C	WHITE	249	2	LIBERAL ARTS	SBVC	Negative	0

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
67	WALL	PLASTER	INTACT	D	WHITE	249	2	LIBERAL ARTS	SBVC	Negative	0.01
68	CEILING	ACP	INTACT	D	WHITE	249	2	LIBERAL ARTS	SBVC	Negative	0
69	CEILING	ACP	INTACT	MID	WHITE	255	2	LIBERAL ARTS	SBVC	Negative	0.01
70	WALL	PLASTER	INTACT	B	WHITE	255	2	LIBERAL ARTS	SBVC	Negative	0
71	WALL	PLASTER	INTACT	D	WHITE	255	2	LIBERAL ARTS	SBVC	Negative	0.01
72	WALL	PLASTER	INTACT	D	WHITE	255	2	LIBERAL ARTS	SBVC	Negative	0.01
73	WALL	PLASTER	INTACT	B	WHITE	254	2	LIBERAL ARTS	SBVC	Negative	0.01
74	WALL	PLASTER	INTACT	D	WHITE	254	2	LIBERAL ARTS	SBVC	Negative	0.01
75	WALL	PLASTER	INTACT	D	WHITE	254	2	LIBERAL ARTS	SBVC	Negative	0.01
76	WALL	PLASTER	INTACT	D	WHITE	254	2	LIBERAL ARTS	SBVC	Negative	0.02
77	CEILING	PLASTER	INTACT	MID	WHITE	254	2	LIBERAL ARTS	SBVC	Negative	0.01
78	CEILING	ACP	INTACT	MID	WHITE	257	2	LIBERAL ARTS	SBVC	Negative	0.01
79	CEILING	ACP	INTACT	MID	WHITE	257	2	LIBERAL ARTS	SBVC	Negative	0.02
80	WALL	PLASTER	INTACT	D	WHITE	257	2	LIBERAL ARTS	SBVC	Negative	0
81	WALL	PLASTER	INTACT	B	WHITE	257	2	LIBERAL ARTS	SBVC	Negative	0
82	WALL	PLASTER	INTACT	B	WHITE	259	2	LIBERAL ARTS	SBVC	Negative	0.01
83	WALL	PLASTER	INTACT	D	WHITE	259	2	LIBERAL ARTS	SBVC	Negative	0.01
84	WALL	PLASTER	INTACT	A	WHITE	259	2	LIBERAL ARTS	SBVC	Negative	0.01
85	WALL	PLASTER	INTACT	A	WHITE	259	2	LIBERAL ARTS	SBVC	Negative	0.03
86	CEILING	PLASTER	INTACT	A	WHITE	259	2	LIBERAL ARTS	SBVC	Negative	0.01
87	CEILING	PLASTER	INTACT	B	WHITE	273	2	LIBERAL ARTS	SBVC	Negative	0
88	WALL	PLASTER	INTACT	C	WHITE	273	2	LIBERAL ARTS	SBVC	Negative	0
89	WALL	PLASTER	INTACT	A	WHITE	273	2	LIBERAL ARTS	SBVC	Negative	0
90	WALL	CERAMIC	INTACT	A	BEIGE	273	2	LIBERAL ARTS	SBVC	Positive	7.8
91	WALL	PLASTER	INTACT	C	WHITE	264	2	LIBERAL ARTS	SBVC	Negative	0
92	WALL	PLASTER	INTACT	A	WHITE	264	2	LIBERAL ARTS	SBVC	Negative	0.01
93	CEILING	ACP	INTACT	A	WHITE	264	2	LIBERAL ARTS	SBVC	Negative	0.01
94	T GRID	METAL	INTACT	A	WHITE	264	2	LIBERAL ARTS	SBVC	Negative	0.03
95	T GRID	METAL	INTACT	MID	WHITE	266	2	LIBERAL ARTS	SBVC	Negative	0
96	CEILING	ACP	INTACT	MID	WHITE	266	2	LIBERAL ARTS	SBVC	Negative	0.01
97	WALL	PLASTER	INTACT	C	WHITE	266	2	LIBERAL ARTS	SBVC	Negative	0
98	WALL	PLASTER	INTACT	A	WHITE	266	2	LIBERAL ARTS	SBVC	Negative	0.01
99	WALL	PLASTER	INTACT	A	WHITE	265	2	LIBERAL ARTS	SBVC	Negative	0

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
100	WALL	PLASTER	INTACT	C	WHITE	265	2	LIBERAL ARTS	SBVC	Negative	0.01
101	CEILING	PLASTER	INTACT	MID	WHITE	265	2	LIBERAL ARTS	SBVC	Negative	0.01
102	CEILING	ACP	INTACT	MID	WHITE	269	2	LIBERAL ARTS	SBVC	Negative	0
103	WALL	PLASTER	INTACT	C	WHITE	269	2	LIBERAL ARTS	SBVC	Negative	0.01
104	WALL	PLASTER	INTACT	A	WHITE	269	2	LIBERAL ARTS	SBVC	Negative	0.01
105	WALL	CONCRETE	INTACT	A	BEIGE	274	2	LIBERAL ARTS	SBVC	Negative	0
106	WALL	CONCRETE	INTACT	C	BEIGE	274	2	LIBERAL ARTS	SBVC	Negative	0
107	CEILING	PLASTER	INTACT	MID	BEIGE	274	2	LIBERAL ARTS	SBVC	Negative	0
108	CEILING	PLASTER	INTACT	MID	WHITE	277	2	LIBERAL ARTS	SBVC	Negative	0
109	CEILING	PLASTER	INTACT	MID	WHITE	277	2	LIBERAL ARTS	SBVC	Negative	0
110	WALL	PLASTER	INTACT	C	WHITE	277	2	LIBERAL ARTS	SBVC	Negative	0
111	WALL	PLASTER	INTACT	A	WHITE	277	2	LIBERAL ARTS	SBVC	Negative	0.01
112	WALL	PLASTER	INTACT	A	WHITE	278	2	LIBERAL ARTS	SBVC	Negative	0
113	WALL	PLASTER	INTACT	C	WHITE	278	2	LIBERAL ARTS	SBVC	Negative	0
114	WALL	PLASTER	INTACT	C	WHITE	281	2	LIBERAL ARTS	SBVC	Negative	0.01
115	WALL	PLASTER	INTACT	A	WHITE	281	2	LIBERAL ARTS	SBVC	Negative	0
116	WALL	PLASTER	INTACT	C	WHITE	284	2	LIBERAL ARTS	SBVC	Negative	0.01
117	WALL	CONCRETE	INTACT	A	WHITE	284	2	LIBERAL ARTS	SBVC	Negative	0
118	WALL	PLASTER	INTACT	B	WHITE	3	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
119	PANEL BP-20	METAL	INTACT	B	BEIGE	3	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
120	POWER PANEL	METAL	INTACT	B	GRAY	3	BASEMENT	LIBERAL ARTS	SBVC	Negative	0.07
121	WALL	PLASTER	INTACT	D	WHITE	2	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
122	WALL	PLASTER	INTACT	B	WHITE	2	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
123	WALL	PLASTER	INTACT	D	WHITE	1	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
124	WALL	PLASTER	INTACT	D	WHITE	1	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
125	BREAKER BOX	METAL	INTACT	D	RUST	1	BASEMENT	LIBERAL ARTS	SBVC	Negative	0
126	PANEL Y	METAL	INTACT	C	GRAY	129	1	LIBERAL ARTS	SBVC	Negative	0.01
127	PANEL Y	METAL	INTACT	C	GRAY	129	1	LIBERAL ARTS	SBVC	Negative	0
128	7200 FIRE ALARM	METAL	INTACT	B	BEIGE	129	1	LIBERAL ARTS	SBVC	Negative	0
129	FCPS-24F	METAL	INTACT	B	RED	129	1	LIBERAL ARTS	SBVC	Negative	0
130	RESET RELAY	METAL	INTACT	B	RED	129	1	LIBERAL ARTS	SBVC	Negative	0.7
131	MASTER TIME	METAL	INTACT	B	BEIGE	129	1	LIBERAL ARTS	SBVC	Negative	0
132	MASTER PULL	METAL	INTACT	B	GRAY	129	1	LIBERAL ARTS	SBVC	Negative	0.01

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
133	WALL	PLASTER	INTACT	D	WHITE	129	1	LIBERAL ARTS	SBVC	Negative	0
134	WALL	PLASTER	INTACT	C	WHITE	129	1	LIBERAL ARTS	SBVC	Negative	0
135	CEILING	PLASTER	INTACT	C	WHITE	129	1	LIBERAL ARTS	SBVC	Negative	0
136	CEILING	PLASTER	INTACT	A	WHITE	129	1	LIBERAL ARTS	SBVC	Negative	0
137	CEILING	DRYWALL	INTACT	A	WHITE	133	1	LIBERAL ARTS	SBVC	Negative	0
138	CEILING	DRYWALL	INTACT	C	WHITE	133	1	LIBERAL ARTS	SBVC	Negative	0.01
139	WALL	DRYWALL	INTACT	A	WHITE	133	1	LIBERAL ARTS	SBVC	Negative	0
140	WALL	DRYWALL	INTACT	B	WHITE	133	1	LIBERAL ARTS	SBVC	Negative	0.01
141	WALL	CERAMIC	INTACT	B	WHITE	133	1	LIBERAL ARTS	SBVC	Positive	10.1
142	ShutterCal										3.47
143	CALIBRATE					..		LIBERAL ARTS		Positive	1
144	CALIBRATE					..		LIBERAL ARTS		Positive	1.2
145	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
146	WALL	PLASTER	INTACT	B	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0
147	CEILING	PLASTER	INTACT	B	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0.04
148	CEILING	PLASTER	INTACT	MID	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0.04
149	CEILING	PLASTER	INTACT	C	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0
150	WALL	PLASTER	INTACT	C	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0
151	WALL	PLASTER	INTACT	D	WHITE	121	1	LIBERAL ARTS	SBVC	Negative	0.03
152	WALL	PLASTER	INTACT	B	WHITE	123	1	LIBERAL ARTS	SBVC	Negative	0.03
153	WALL	PLASTER	INTACT	D	WHITE	123	1	LIBERAL ARTS	SBVC	Negative	0.1
154	WALL	PLASTER	INTACT	A	WHITE	124	1	LIBERAL ARTS	SBVC	Negative	0.04
155	WALL	PLASTER	INTACT	B	WHITE	124	1	LIBERAL ARTS	SBVC	Negative	0.04
156	CEILING	ACP	INTACT	B	WHITE	124	1	LIBERAL ARTS	SBVC	Negative	0
157	CEILING	ACP	INTACT	B	WHITE	116	1	LIBERAL ARTS	SBVC	Negative	0
158	CEILING	ACP	INTACT	MID	WHITE	116	1	LIBERAL ARTS	SBVC	Negative	0
159	WALL	PLASTER	INTACT	B	WHITE	116	1	LIBERAL ARTS	SBVC	Negative	0.04
160	WALL	PLASTER	INTACT	B	WHITE	116	1	LIBERAL ARTS	SBVC	Negative	0.05
161	WALL	PLASTER	INTACT	D	WHITE	135	1	LIBERAL ARTS	SBVC	Negative	0.07
162	CEILING	ACP	INTACT	MID	WHITE	135	1	LIBERAL ARTS	SBVC	Negative	0.01
163	CEILING	ACP	INTACT	MID	WHITE	107	1	LIBERAL ARTS	SBVC	Negative	0
164	WALL	PLASTER	INTACT	B	WHITE	107	1	LIBERAL ARTS	SBVC	Negative	0.04
165	WALL	PLASTER	INTACT	D	WHITE	107	1	LIBERAL ARTS	SBVC	Negative	0.04

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
166	WALL	PLASTER	INTACT	D	WHITE	106	1	LIBERAL ARTS	SBVC	Negative	0.04
167	WALL	PLASTER	INTACT	B	WHITE	106	1	LIBERAL ARTS	SBVC	Negative	0.06
168	WALL	PLASTER	INTACT	D	WHITE	105	1	LIBERAL ARTS	SBVC	Negative	0.04
169	WALL	PLASTER	INTACT	C	WHITE	105	1	LIBERAL ARTS	SBVC	Negative	0.07
170	CEILING	ACP	INTACT	MID	WHITE	105	1	LIBERAL ARTS	SBVC	Negative	0
171	T GRID	METAL	INTACT	MID	WHITE	105	1	LIBERAL ARTS	SBVC	Negative	0
172	T GRID	METAL	INTACT	MID	WHITE	110	1	LIBERAL ARTS	SBVC	Negative	0
173	CEILING	ACP	INTACT	MID	WHITE	110	1	LIBERAL ARTS	SBVC	Negative	0
174	WALL	PLASTER	INTACT	D	WHITE	110	1	LIBERAL ARTS	SBVC	Negative	0.06
175	WALL	PLASTER	INTACT	A	WHITE	101	1	LIBERAL ARTS	SBVC	Negative	0.08
176	WALL	PLASTER	INTACT	A	WHITE	101	1	LIBERAL ARTS	SBVC	Negative	0.07
177	WALL	PLASTER	INTACT	C	WHITE	101	1	LIBERAL ARTS	SBVC	Negative	0.04
178	WALL	PLASTER	INTACT	C	WHITE	101	1	LIBERAL ARTS	SBVC	Negative	0.04
179	WALL	PLASTER	INTACT	B	WHITE	108	1	LIBERAL ARTS	SBVC	Negative	0.03
180	WALL	PLASTER	INTACT	C	WHITE	108	1	LIBERAL ARTS	SBVC	Negative	0.1
181	WALL	PLASTER	INTACT	A	WHITE	112	1	LIBERAL ARTS	SBVC	Negative	0.03
182	WALL	PLASTER	INTACT	B	WHITE	112	1	LIBERAL ARTS	SBVC	Negative	0.05
183	WALL	PLASTER	INTACT	D	WHITE	112	1	LIBERAL ARTS	SBVC	Negative	0.03
184	CEILING	ACP	INTACT	MID	WHITE	112	1	LIBERAL ARTS	SBVC	Negative	0.01
185	T GRID	METAL	INTACT	MID	WHITE	112	1	LIBERAL ARTS	SBVC	Negative	0
186	T GRID	METAL	INTACT	MID	WHITE	111	1	LIBERAL ARTS	SBVC	Negative	0
187	CEILING	ACP	INTACT	MID	WHITE	111	1	LIBERAL ARTS	SBVC	Negative	0
188	WALL	PLASTER	INTACT	D	WHITE	111	1	LIBERAL ARTS	SBVC	Negative	0.02
189	WALL	CONCRETE	INTACT	C	WHITE	111	1	LIBERAL ARTS	SBVC	Negative	0.04
190	WALL	CONCRETE	INTACT	A	WHITE	143	1	LIBERAL ARTS	SBVC	Negative	0.03
191	WALL	PLASTER	INTACT	C	WHITE	143	1	LIBERAL ARTS	SBVC	Negative	0.03
192	WALL	PLASTER	INTACT	A	WHITE	142	1	LIBERAL ARTS	SBVC	Negative	0.04
193	WALL	PLASTER	INTACT	B	WHITE	142	1	LIBERAL ARTS	SBVC	Negative	0.04
194	WALL	PLASTER	INTACT	D	WHITE	142	1	LIBERAL ARTS	SBVC	Negative	0.04
195	WALL	PLASTER	INTACT	D	WHITE	141	1	LIBERAL ARTS	SBVC	Negative	0.03
196	WALL	PLASTER	INTACT	B	WHITE	141	1	LIBERAL ARTS	SBVC	Negative	0.03
197	WALL	PLASTER	INTACT	D	WHITE	141	1	LIBERAL ARTS	SBVC	Negative	0.04
198	CEILING	PLASTER	INTACT	C	WHITE	141	1	LIBERAL ARTS	SBVC	Negative	0.03

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
199	CEILING	ACP	INTACT	MID	WHITE	146	1	LIBERAL ARTS	SBVC	Negative	0
200	T GRID	METAL	INTACT	MID	WHITE	146	1	LIBERAL ARTS	SBVC	Negative	0
201	WALL	PLASTER	INTACT	D	WHITE	146	1	LIBERAL ARTS	SBVC	Negative	0.06
202	WALL	PLASTER	INTACT	C	WHITE	146	1	LIBERAL ARTS	SBVC	Negative	0.04
203	WALL	CONCRETE	INTACT	B	WHITE	146	1	LIBERAL ARTS	SBVC	Negative	0.04
204	WALL	CONCRETE	INTACT	B	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0.11
205	WALL	PLASTER	INTACT	A	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0.1
206	WALL	PLASTER	INTACT	A	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0.04
207	WALL	CONCRETE	INTACT	D	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0.08
208	CEILING	ACP	INTACT	MID	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0
209	T GRID	METAL	INTACT	MID	WHITE	148	1	LIBERAL ARTS	SBVC	Negative	0
210	T GRID	METAL	INTACT	MID	WHITE	195	1	LIBERAL ARTS	SBVC	Negative	0
211	CEILING	ACP	INTACT	MID	WHITE	195	1	LIBERAL ARTS	SBVC	Negative	0
212	WALL	CONCRETE	INTACT	B	WHITE	195	1	LIBERAL ARTS	SBVC	Negative	0
213	WALL	PLASTER	INTACT	C	WHITE	195	1	LIBERAL ARTS	SBVC	Negative	0
214	WALL	PLASTER	INTACT	A	BLACK	191	1	LIBERAL ARTS	SBVC	Negative	0
215	WALL	PLASTER	INTACT	A	WHITE	191	1	LIBERAL ARTS	SBVC	Negative	0.07
216	CEILING	PLASTER	INTACT	MID	WHITE	191	1	LIBERAL ARTS	SBVC	Negative	0.05
217	WALL	PLASTER	INTACT	A	WHITE	192	1	LIBERAL ARTS	SBVC	Negative	0.03
218	WALL	PLASTER	INTACT	C	WHITE	192	1	LIBERAL ARTS	SBVC	Negative	0.06
219	WALL	PLASTER	INTACT	A	WHITE	188	1	LIBERAL ARTS	SBVC	Negative	0.04
220	WALL	PLASTER	INTACT	C	WHITE	188	1	LIBERAL ARTS	SBVC	Negative	0.04
221	CEILING	PLASTER	INTACT	MID	WHITE	188	1	LIBERAL ARTS	SBVC	Negative	0.03
222	CEILING	ACP	INTACT	MID	WHITE	189	1	LIBERAL ARTS	SBVC	Negative	0
223	T GRID	METAL	INTACT	MID	WHITE	189	1	LIBERAL ARTS	SBVC	Negative	0
224	WALL	PLASTER	INTACT	A	WHITE	189	1	LIBERAL ARTS	SBVC	Negative	0.05
225	WALL	CONCRETE	INTACT	C	WHITE	189	1	LIBERAL ARTS	SBVC	Negative	0.03
226	WALL	CONCRETE	INTACT	A	WHITE	184	1	LIBERAL ARTS	SBVC	Negative	0.03
227	WALL	CONCRETE	INTACT	C	WHITE	184	1	LIBERAL ARTS	SBVC	Negative	0.07
228	CEILING	PLASTER	INTACT	C	BEIGE	184	1	LIBERAL ARTS	SBVC	Negative	0.03
229	WALL	PLASTER	INTACT	A	WHITE	179	1	LIBERAL ARTS	SBVC	Negative	0.03
230	WALL	PLASTER	INTACT	C	WHITE	179	1	LIBERAL ARTS	SBVC	Negative	0.04
231	WALL	CONCRETE	INTACT	B	WHITE	179	1	LIBERAL ARTS	SBVC	Negative	0.04

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
232	T GRID	METAL	INTACT	MID	WHITE	179	1	LIBERAL ARTS	SBVC	Negative	0
233	CEILING	ACP	INTACT	MID	WHITE	179	1	LIBERAL ARTS	SBVC	Negative	0
234	CEILING	ACP	INTACT	MID	WHITE	176	1	LIBERAL ARTS	SBVC	Negative	0
235	WALL	PLASTER	INTACT	A	WHITE	176	1	LIBERAL ARTS	SBVC	Negative	0.03
236	WALL	PLASTER	INTACT	C	WHITE	176	1	LIBERAL ARTS	SBVC	Negative	0.04
237	WALL	PLASTER	INTACT	C	WHITE	175	1	LIBERAL ARTS	SBVC	Negative	0.03
238	WALL	PLASTER	INTACT	A	WHITE	175	1	LIBERAL ARTS	SBVC	Negative	0.04
239	CEILING	PLASTER	INTACT	B	WHITE	175	1	LIBERAL ARTS	SBVC	Negative	0.06
240	CEILING	PLASTER	INTACT	MID	WHITE	169	1	LIBERAL ARTS	SBVC	Negative	0.04
241	WALL	PLASTER	INTACT	D	WHITE	169	1	LIBERAL ARTS	SBVC	Negative	0.03
242	WALL	PLASTER	INTACT	B	WHITE	169	1	LIBERAL ARTS	SBVC	Negative	0.05
243	WALL	CONCRETE	INTACT	A	WHITE	169	1	LIBERAL ARTS	SBVC	Negative	0.04
244	WALL	PLASTER	INTACT	D	WHITE	168	1	LIBERAL ARTS	SBVC	Negative	0.06
245	WALL	PLASTER	INTACT	B	WHITE	168	1	LIBERAL ARTS	SBVC	Negative	0.07
246	T GRID	METAL	INTACT	MID	WHITE	168	1	LIBERAL ARTS	SBVC	Negative	0
247	CEILING	ACP	INTACT	MID	WHITE	168	1	LIBERAL ARTS	SBVC	Negative	0
248	CEILING	PLASTER	INTACT	MID	WHITE	164	1	LIBERAL ARTS	SBVC	Negative	0.03
249	CEILING	PLASTER	INTACT	MID	WHITE	164	1	LIBERAL ARTS	SBVC	Negative	0.14
250	WALL	PLASTER	INTACT	D	WHITE	164	1	LIBERAL ARTS	SBVC	Negative	0.04
251	WALL	PLASTER	INTACT	B	WHITE	164	1	LIBERAL ARTS	SBVC	Negative	0.09
252	WALL	PLASTER	INTACT	D	WHITE	158	1	LIBERAL ARTS	SBVC	Negative	0.03
253	WALL	PLASTER	INTACT	B	WHITE	158	1	LIBERAL ARTS	SBVC	Negative	0.03
254	WALL	CONCRETE	INTACT	A	WHITE	158	1	LIBERAL ARTS	SBVC	Negative	0.05
255	CEILING	PLASTER	INTACT	A	WHITE	158	1	LIBERAL ARTS	SBVC	Negative	0.03
256	CEILING	ACP	INTACT	MID	WHITE	159	1	LIBERAL ARTS	SBVC	Negative	0
257	WALL	PLASTER	INTACT	D	WHITE	159	1	LIBERAL ARTS	SBVC	Negative	0.03
258	WALL	PLASTER	INTACT	A	WHITE	159	1	LIBERAL ARTS	SBVC	Negative	0.03
259	WALL	PLASTER	INTACT	C	WHITE	157	1	LIBERAL ARTS	SBVC	Negative	0.04
260	WALL	PLASTER	INTACT	A	WHITE	157	1	LIBERAL ARTS	SBVC	Negative	0.04
261	T GRID	METAL	INTACT	MID	WHITE	157	1	LIBERAL ARTS	SBVC	Negative	0
262	CEILING	ACP	INTACT	MID	WHITE	157	1	LIBERAL ARTS	SBVC	Negative	0
263	CEILING	PLASTER	INTACT	MID	WHITE	153	1	LIBERAL ARTS	SBVC	Negative	0.05
264	CEILING	PLASTER	INTACT	MID	WHITE	153	1	LIBERAL ARTS	SBVC	Negative	0.03

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
265	WALL	PLASTER	INTACT	C	WHITE	153	1	LIBERAL ARTS	SBVC	Negative	0.03
266	WALL	PLASTER	INTACT	B	WHITE	153	1	LIBERAL ARTS	SBVC	Negative	0.03
267	WALL	PLASTER	INTACT	C	WHITE	155	1	LIBERAL ARTS	SBVC	Negative	0.05
268	WALL	CONCRETE	INTACT	A	WHITE	155	1	LIBERAL ARTS	SBVC	Negative	0.04
269	WALL	CONCRETE	INTACT	C	BEIGE	152	1	LIBERAL ARTS	SBVC	Negative	0.09
270	CEILING	PLASTER	INTACT	C	BEIGE	152	1	LIBERAL ARTS	SBVC	Negative	0.14
271	WALL	CONCRETE	INTACT	D	BEIGE	OUTSIDE 180	1	LIBERAL ARTS	SBVC	Negative	0.05
272	WALL	CONCRETE	INTACT	D	BEIGE	OUTSIDE 180	1	LIBERAL ARTS	SBVC	Negative	0.02
273	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
274	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
275	CALIBRATE					..		LIBERAL ARTS		Positive	1.1
276	ShutterCal										3.64
277	CALIBRATE					..		PLANETARIUM		Positive	1.1
278	CALIBRATE					..		PLANETARIUM		Positive	1.2
279	CALIBRATE					..		PLANETARIUM		Positive	1.1
280	WALL	DRYWALL	INTACT	D	WHITE	204	2	PLANETARIUM	SBVC	Negative	0
281	WALL	CMU	INTACT	D	BEIGE	204	2	PLANETARIUM	SBVC	Negative	0
282	WALL	DRYWALL	INTACT	B	BEIGE	204	2	PLANETARIUM	SBVC	Negative	0.01
283	CEILING	DRYWALL	INTACT	MID	BEIGE	204	2	PLANETARIUM	SBVC	Negative	0.01
284	CEILING	DRYWALL	INTACT	MID	BEIGE	204	2	PLANETARIUM	SBVC	Negative	0.01
285	WALL	DRYWALL	INTACT	D	BEIGE	203	2	PLANETARIUM	SBVC	Negative	0
286	WALL	DRYWALL	INTACT	B	BEIGE	203	2	PLANETARIUM	SBVC	Negative	0
287	COLUMN	METAL	INTACT	B	WHITE	203	2	PLANETARIUM	SBVC	Negative	0.01
288	COLUMN	METAL	INTACT	A	WHITE	203	2	PLANETARIUM	SBVC	Negative	0
289	CABINET TC-C	METAL	INTACT	A	WHITE	203	2	PLANETARIUM	SBVC	Negative	0
290	CONDUIT, LG	METAL	INTACT	A	WHITE	203	2	PLANETARIUM	SBVC	Negative	0
291	CONDUIT, SM	METAL	INTACT	A	WHITE	203	2	PLANETARIUM	SBVC	Negative	0
292	WALL	DRYWALL	INTACT	D	WHITE	208	2	PLANETARIUM	SBVC	Negative	0.03
293	WALL	DRYWALL	INTACT	B	WHITE	208	2	PLANETARIUM	SBVC	Negative	0.01
294	CEILING	DRYWALL	INTACT	B	WHITE	208	2	PLANETARIUM	SBVC	Negative	0.01
295	WALL	DRYWALL	INTACT	C	WHITE	202	2	PLANETARIUM	SBVC	Negative	0
296	WALL	DRYWALL	INTACT	D	GREEN, LIGHT	201	2	PLANETARIUM	SBVC	Negative	0.01
297	WALL	DRYWALL	INTACT	C	GREEN, LIGHT	201	2	PLANETARIUM	SBVC	Negative	0.01

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
298	CEILING	ACP	INTACT	MID	WHITE	201	2	PLANETARIUM	SBVC	Negative	0
299	WALL	DRYWALL	INTACT	A	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
300	WALL	DRYWALL	INTACT	B	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
301	WALL	DRYWALL	INTACT	C	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
302	WALL	DRYWALL	INTACT	D	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
303	CEILING	DRYWALL	INTACT	A	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
304	CEILING	DRYWALL	INTACT	A	BLACK	ATTIC	2	PLANETARIUM	SBVC	Negative	0
305	WALL	CMU	INTACT	A	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
306	WALL	CMU	INTACT	A	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
307	WALL	PLASTER	INTACT	C	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
308	WALL	PLASTER	INTACT	C	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
309	COLUMN	PLASTER	INTACT	A	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
310	WALL	PLASTER	INTACT	D	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
311	WALL	PLASTER	INTACT	D	BLUE	101	1	PLANETARIUM	SBVC	Negative	0
312	WALL	DRYWALL	INTACT	D	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0.01
313	WALL	DRYWALL	INTACT	D	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0.01
314	WALL	DRYWALL	INTACT	B	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0.04
315	WALL	DRYWALL	INTACT	B	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0.01
316	CEILING	ACP	INTACT	MID	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0
317	CEILING	ACP	INTACT	MID	BLUE, LIGHT	111	1	PLANETARIUM	SBVC	Negative	0
318	CEILING	ACP	INTACT	MID	BLUE, LIGHT	112	1	PLANETARIUM	SBVC	Negative	0
319	WALL	DRYWALL	INTACT	B	BLUE, LIGHT	112	1	PLANETARIUM	SBVC	Negative	0.01
320	WALL	DRYWALL	INTACT	C	BLUE, LIGHT	112	1	PLANETARIUM	SBVC	Negative	0.01
321	WALL	CERAMIC	INTACT	B	BLUE, LIGHT	112	1	PLANETARIUM	SBVC	Negative	0.02
322	WALL	CERAMIC	INTACT	B	BLUE, LIGHT	112	1	PLANETARIUM	SBVC	Negative	0.07
323	WALL	CERAMIC	INTACT	C	WHITE	112	1	PLANETARIUM	SBVC	Negative	0.01
324	WALL	CERAMIC	INTACT	B	BLUE	110	1	PLANETARIUM	SBVC	Negative	0.03
325	WALL	CERAMIC	INTACT	A	BLUE	110	1	PLANETARIUM	SBVC	Negative	0.01
326	WALL	DRYWALL	INTACT	A	BLUE, LIGHT	110	1	PLANETARIUM	SBVC	Negative	0.01
327	WALL	DRYWALL	INTACT	B	BLUE, LIGHT	110	1	PLANETARIUM	SBVC	Negative	0.01
328	CEILING	ACP	INTACT	MID	WHITE	110	1	PLANETARIUM	SBVC	Negative	0
329	WALL	CMU	INTACT	C	GRAY	110	1	PLANETARIUM	SBVC	Negative	0
330	WALL	PLASTER	INTACT	A	BEIGE	110	1	PLANETARIUM	SBVC	Negative	0.03

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
331	WALL	DRYWALL	INTACT	A	BEIGE	110	1	PLANETARIUM	SBVC	Negative	0.01
332	WALL	DRYWALL	INTACT	A	WHITE	106	1	PLANETARIUM	SBVC	Negative	0.02
333	WALL	DRYWALL	INTACT	C	WHITE	106	1	PLANETARIUM	SBVC	Negative	0.01
334	WALL	CMU	INTACT	B	WHITE	106	1	PLANETARIUM	SBVC	Negative	0.01
335	CEILING	ACP	INTACT	B	WHITE	106	1	PLANETARIUM	SBVC	Negative	0
336	WALL	DRYWALL	INTACT	B	BLUE	104	1	PLANETARIUM	SBVC	Negative	0
337	WALL	DRYWALL	INTACT	B	BLUE	104	1	PLANETARIUM	SBVC	Negative	0
338	WALL	PLASTER	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.02
339	WALL	PLASTER	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.01
340	WALL	PLASTER	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.01
341	CEILING	PLASTER	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.01
342	CEILING	PLASTER	INTACT	A	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.02
343	CONDUIT, SM	METAL	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.14
344	CONDUIT, SM	METAL	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.02
345	CONDUIT, LG	METAL	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.05
346	CONDUIT, LG	METAL	INTACT	B	YELLOW	104	1	PLANETARIUM	SBVC	Negative	0.05
347	PANEL, SM	METAL	INTACT	B	BROWN	104	1	PLANETARIUM	SBVC	Negative	0.19
348	FA PANEL	METAL	INTACT	B	BROWN	104	1	PLANETARIUM	SBVC	Negative	0.19
349	CHW VALVE PANEL	METAL	INTACT	C	GRAY, LIGHT	104	1	PLANETARIUM	SBVC	Negative	0.01
350	WALL	CMU	INTACT	C	GRAY, LIGHT	104	1	PLANETARIUM	SBVC	Negative	0
351	WALL	CMU	INTACT	C	GRAY, LIGHT	104	1	PLANETARIUM	SBVC	Negative	0
352	WALL	CMU	INTACT	C	BEIGE	EXT-WEST	1	PLANETARIUM	SBVC	Negative	0
353	WALL	CMU	INTACT	C	BEIGE	EXT-SW	1	PLANETARIUM	SBVC	Negative	0.01
354	WALL	CMU	INTACT	C	BEIGE	EXT-SW	1	PLANETARIUM	SBVC	Negative	0
355	PANEL 4DB1	METAL	INTACT	A	GRAY, LIGHT	EXT-SW	1	PLANETARIUM	SBVC	Negative	0
356	PANEL 4DB1	METAL	INTACT	C	GRAY, LIGHT	EXT-SW	1	PLANETARIUM	SBVC	Negative	0
357	E PANEL	METAL	INTACT	C	GRAY	EXT-SW	1	PLANETARIUM	SBVC	Negative	0
358	WALL	CMU	INTACT	C	GRAY	EXT-SE	1	PLANETARIUM	SBVC	Negative	0
359	WALL	CMU	INTACT	C	GRAY	EXT-SE	1	PLANETARIUM	SBVC	Negative	0
360	WALL	CMU	INTACT	C	GRAY	EXT-SE	1	PLANETARIUM	SBVC	Negative	0
361	PULL ALARM	METAL	INTACT	B	RED	EXT-SE	1	PLANETARIUM	SBVC	Negative	0.27
362	PULL ALARM	METAL	INTACT	A	RED	EXT-MAIN	1	PLANETARIUM	SBVC	Negative	0.3
363	CALIBRATE							PLANETARIUM		Positive	1

Planetarium Liberal Arts Building
XRF Data for F/LS Project

SHOT NO.	COMPONENT	SUBSTRATE	CONDITION	SIDE	COLOR	ROOM	FLOOR	BUILDING	SITE	Results	PbC
364	CALIBRATE							PLANETARIUM		Positive	1.1
365	CALIBRATE							PLANETARIUM		Positive	1.1

**ATTACHMENT D-
CONSULTANT CERTIFICATIONS**

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Yvan A Schmidt



Name

Certification No. **05-3791**

Expires on **05/19/18**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



State of California Department of Public Health

Lead-Related Construction Certificate

Inspector/Assessor
Project Designer
Project Monitor

Expiration Date
05/11/2019
05/11/2019
05/11/2019



Yvan A. Schmidt ID # 2975

Certificate Type	Expiration Date
Inspector/Assessor	05/11/2019
Project Designer	05/11/2019
Project Monitor	05/11/2019

EXHIBIT H

SECTION 00 40 01- SUPPLEMENTAL CONDITIONS

The following supplemental information modifies changes, deletes from or adds to the General Conditions of the Contract and supply in greater detail other clarifications and requirements of the contract documents for Construction. Where any article/paragraph of the General Conditions or other requirements is modified or any article, paragraph, subparagraph, or clause thereof is modified or deleted by these Supplemental Conditions, the unaltered provisions of that article, paragraph, subparagraph, or clause shall remain in effect.

A. LIQUIDATED DAMAGES:

LIQUIDATED DAMAGES: It being impracticable and infeasible to determine the amount of actual damage, it is agreed that the GENERAL CONTRACTOR will pay the DISTRICT the sum of **\$3,00.00** per calendar day for each and every day of delay beyond the time set forth in Article 2 of this Agreement for completing said work as liquidated damages and not as a penalty or forfeiture. GENERAL CONTRACTOR shall pay a percentage of the liquidated damages commensurate with the GENERAL CONTRACTOR's responsibility for each calendar day of delay as determined by the Project Manager and the DISTRICT in completing the work within the stipulated time as a result of: (a) the GENERAL CONTRACTOR's failure to complete the Contract within the time specified in the Notice to Proceed and/or; (b) the GENERAL CONTRACTOR's failure to complete the Contract in accordance with the Project Schedule. In the event the same is not paid, the GENERAL CONTRACTOR further agrees that the DISTRICT may deduct such amount thereof from any money due or that may become due the GENERAL CONTRACTOR under the contract. This Article shall not be construed as preventing the DISTRICT from the recovery of damages under provisions of the contract documents.

B. Regarding General Conditions, section 00 40 00, Article 3.7.2 "SCHEDULE":

1. Standard Work Hours: Regular Construction Work Hours and Construction Site Access are Monday through Friday 7:00a.m. – 4:00pm. Schedule changes will need to be approved by Facilities Project Manager 2 days ahead of requested schedule change.

C. REGARDING INSTRUCTION TO BIDDERS, SECTION 00 20 00, EVIDIENCE OF RESPONSIBILITY

1. A bidder whose bid is under consideration for the award of contract **must** be available for a Post-Bid Interview on March 26th, 2018 between the hours of 8:00a.m – 12:00p.m. Bidders under consideration shall be contacted by Project Manager to schedule interview during above mentioned time frame.

D. CONSTRUCTION DOCUMENTATION MANAGEMENT TOOL:

1. ~~The District is utilizing document management software for construction administration documentation.~~
2. ~~CONTRACTOR shall utilize either Prolog Converge or eBuilder web-based software as directed by the District for coordination of construction documentation and communication including but not limited to: RFI's, submittals, change order requests, change orders, construction directives, and punch lists, etc.~~
3. ~~CONTRACTOR will be provided one (1) licensing access paid by the District.~~
4. ~~Project Manager, CONTRACTOR, Architect and Project Inspector will utilize the document management software.~~

E. CONSTRUCTION DEMOGRAPHICS AND LOCAL HIRE REPORTING:

1. The Contractor will be required to submit monthly demographics/local hire work force and payment summaries with each progress payment. The District is requiring the General

Contractor to provide monthly reporting of workforce utilized on the project, separated by subcontract. In addition, the District will require monthly payment summaries corresponding to each employee wages, subcontractor progress payments and General Contractor payments. Furthermore, the General Contractor will be required to provide all local wages for local residents as shown on certified payroll, subcontract values, subcontractor payments differentiated by local vs. non-local. See Exhibit B for required monthly reporting forms.

F. NOTICE TO PROCEED MILESTONES:

- 1- **Submittals and Material Procurement – Start April 16, 2018 – End May 29, 2018 - (43 Calendar Days) issued after District Board Approval and execution of the contract.**
- 2- **Construction (73 Calendar Days) – Must start on May 29, 2018 and must be completed no later than August 10, 2018.** Shall consist of all general requirements, including but not limited to required surveys, submittals, deferred approvals, permits and approvals, pre-construction meetings and activities, site walks, long lead procurement requirements, hall off, installation, operation, final cleaning and complete contract scope of work as defined in the project documents by **August 10, 2018**
- 3- **DSA and Project Closeout – Start August 10, 2018 and complete no later than September 9, 2018 (30 Calendar Days).** Shall consist of submission and approval of closeout items such as warranties, O&M manuals, Record Drawings and DSA closeout documentation.

G. Completion Milestones

1. Substantial Completion: (1) calendar day, within duration of NTP 2.
2. Punch list: (30) calendar days, within duration of NTP 2.
3. Final Completion (1) calendar day, within duration of NTP 3.
4. Notice of Completion (1) calendar day, within duration of NTP 3.

H. REGARDING CONTRACTOR LOGISTICS AND SITE CONSTRAINTS:

1. Logistics: prior to commencement of WORK, CONTRACTOR shall prepare and submit to the Project Manager, a detailed PROJECT specific Site Logistics Plan in legible size, setting forth CONTRACTOR plan of WORK relative to the following items:
 - a. Hauling route shall be in accordance with local ordinances. A truck access route to and from PROJECT site. Within the Campus, in accordance with Campus policies and procedures.
 - b. The identification of any overhead wire restrictions for power, lighting, signal or cable.
 - c. Pedestrian walkways and ADA pathway access and closure requirements.
 - d. Protection of sidewalk, walkways, pedestrians and vehicular traffic.
 - e. PROJECT site fencing and access gate locations.
 - f. Construction parking.

- g. Material staging or delivery areas.
 - h. Material storage areas.
 - i. Temporary trailer locations.
 - j. Temporary service location and proposed routing of all temporary utilities.
 - k. Location of temporary or accessible fire protection.
 - l. Trash removal and location of dumpsters.
 - m. Concrete pumping locations.
 - n. Steel storing locations.
 - o. Operation equipment access route.
 - p. Crane locations.
 - q. Location of portable sanitary facilities.
 - r. Mixer truck wash-out locations.
 - s. Traffic control signage.
 - t. Perimeter and site lighting.
 - u. Stockpile or lay down areas.
 - v. Security lighting.
 - w. Fire Access.
 - x. Project signage locations.
2. Underground pipe and trenching for utility point of connections
 3. Length of open trench at any one time to be coordinated with Project Manager and Campus and trench plate plan to be submitted for review and approval by District / Campus.
 4. Utilities Services Shut Downs, Tie-ins and Start-Ups.
 5. FF&E: When project has reached Substantial Completion, the Owner's Furniture, Fixtures and Equipment (FF&E) and Information Technology (IT) vendors may start delivery and installation of systems. CONTRACTOR will be required to coordinate and allow access for these items and any additional Owner vendors that are identified.

I. Constraints

1. Work Restrictions:

- a. Construction shall not hinder the Campus ongoing operations around campus. Most of the Planetarium and Liberal Arts Building will be vacated by the Campus staff and the Contractor will have full access to those buildings 24/7 from May 29, 2018 through August 10, 2018. However, the Campus needs access to the "Food Storage" room in the Planetarium and the Credit Union Room in the Liberal Arts as noted on Exhibit D (Drawing sheets FA 201 and FA 301). Other than that, every Monday between the hours of 10:00am and 12:00 pm the Campus Faculty will need to have access to their offices strictly to gather documents, they are not to stay inside the building to perform desk work. If there are urgent requests, the Campus staff will coordinate with the Facilities Project Manager/ Facilities M&O Director to gain safe access to their office. These

urgent requests will be ran through the Contractor Superintendent before entering the building.

- b. Construction work in surrounding area to be coordinated in advance. Contractor to submit Logistics Plan for approval prior to start of work. See section H above.
- c. Construction shall not hinder the Campus ongoing operations for use of accessible paths of travel surrounding the impacted work areas.
- d. Contractor shall coordinate construction operations with other District Contractors performing work within the Campus.
- e. Construction shall not hinder ongoing Campus operations. Contractor shall maintain continuous uninterruptible utility services, (i.e. electric, phone, data, water, gas, sewer, security, fire alarm) to occupied buildings and/or modular classrooms.
- f. Campus testing dates, graduation dates, and special events:
 - i. ~~No work allowed during campus VC Commencement ceremonies May 21-22, 2015.~~
 - ii. Summer break conducted May 29 – August 10, 2015. (Campus will have limited student/staff onsite during this time frame)
 - iii. Reference Exhibit M for full Academic Calendar.

2. Building Shut Down Sequence Requirements:

- a. Contractor to provide building shut down sequence as required to complete their work.

J. WORK REQUIRED UNDER THIS PROPOSAL INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING INCLUSIONS:

Project Construction provisions/Work :

1. Contractor shall provide provision for (10) ten temporary signage, and barricades as required for construction and trenching. Provide provision for traffic control, traffic re-routing and walkway/pathway/sidewalk alternate paths of travel and/or re-routing as necessary and required by conditions and progress of work. Directional signage is critical and shall be provided for review and approval to the Campus operations and student coordination as construction progresses at the construction site. Minimal signage requirements shall be defined as 24" x 36" polyvinyl waffle board signs with 4" lettering in contrasting colors, securely mounted to posts.
2. Contractor shall furnish, erect and properly maintain at all times, as directed by District, Project Manager, or Architect or required by conditions and progress of work, all necessary safety devices as required by OSHA, city requirements and local jurisdictions, including but not limited to: safeguards, construction canopies, signs, audible devices for protection of the blind, ADA ramps, safety rails, belts and nets, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created by such features in the course of construction at the Project construction site and throughout the Campus where any construction activities will occur.
3. Contractor to comply with applicable California Environmental Quality Act (CEQA) as required by the Program Environmental Impact Report (PEIR) and coordinate with the Project Manager to the items listed in Section 5.0 Mitigation Monitoring Program including, but not limited to:
 - a. Biological Resources: B-2, Cultural and Paleontological Resources: CR-1, CR-2, CR-5, Geology and Soils: G-1, G-2, Hazards and Hazardous Materials, if applicable: HAZ-1 through HAZ-13, Hydrology and Water Quality: H-1, Noise: N-1, N-2, N-3, N-4, N-5, N-6, N-7, N-8, N-9, N-10, N-12, N-15, . Contractors shall follow all directions given by the

Project Manager. All requested work shall be at no extra cost to the Owner or Project Manager.

- ~~b. This project requires the following, but not limited to: nesting bird survey, archeological monitoring and Native American monitoring involving ground disturbances in undisturbed sediments. All construction activities shall ensure compliance with PEIR. The contractor shall familiarize themselves with all mitigation monitoring and coordinate with the Project Manager for all construction activities involving PEIR to ensure The District Consultant can be scheduled for the related activities with (2) weeks' notice.~~
- ~~4. Fence Plan: Contractor to coordinate actual fence location with the Project Manager and Campus to determine the perimeter locations. Fence plan parameters are defined on the exhibit and shall include construction screen. Submit fence plan showing the layout of the fencing to the Project Manager for approval prior to installing temporary fencing.~~
5. Contractor shall coordinate all deliveries, equipment and materials to be onsite within the construction temporary fence zone, no later than 7:00am. Deliveries will not be permitted during "off-hours" and weekends, without prior approval from Project Manager.

S. UTILITY WORK: If applicable

1. IRRIGATION SCOPE OF WORK PROCEDURE:

- a. Irrigation scope of work will consist of tying into existing and active irrigation system that includes irrigation controllers and irrigation lines that control irrigation outside of the project site limits. Below is the procedure that will be followed:
- b. District, Project Manager, CONTRACTOR, and Irrigation SUBCONTRACTOR will review state of existing irrigation systems and sign-off on the condition of the entire system prior to any WORK performed by the CONTRACTOR. Once the condition of the system is signed-off and while the CONTRACTOR is performing their required scope of work associated with the system the entire affected portions of the system will be deemed as being owned by the CONTRACTOR. It will be the responsibility of the CONTRACTOR to restore/return the system to its signed-off conditions at the completion of the CONTRACTOR'S irrigation scope of WORK.
- c. CONTRACTOR to perform required irrigation scope of WORK and necessary WORK, to ensure irrigation system is returned to its signed-off condition.
- d. Owner, Project Manager, CONTRACTOR, and Irrigation SUB-CONTRACTOR will review completed irrigation scope of WORK and once it is verified and agreed upon that the irrigation scope of WORK is complete and the irrigation system is returned to its signed-off condition it will be turned over to the owner. In addition to the WORK specified, CONTRACTOR will be responsible for survival/ restoration of all existing plant material within limits of WORK but not specified on contract documents. CONTRACTOR will also be responsible for all existing plant material outside limits of WORK but dependent on irrigation system modified by the WORK in contract documents.
- e. CONTRACTOR shall repair, fix and replace any landscape area valves/controllers and irrigation broken, damaged or disturbed during the course of construction with like materials at CONTRACTOR'S own cost.

2. UTILITY SCOPE OF WORK:

March 2018

- a. Contractor to coordinate, furnish and install all public utility service connections and provide all communication and scheduling.
- b. All costs for public utility service installation fees.
- c. *Regional Notification Center.* Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the District has been given the identification number by the Contractor. Any damages arising from failure to make appropriate regional notification shall be at the sole risk of Contractor. Any delays caused by failure to make appropriate regional notification shall be at the sole risk of Contractor and shall not be considered for extension of time pursuant to Paragraph 8.4.

Utilities - Removal and Restoration

The District has endeavored to determine the existence of utilities at the Site of the Work from the records of the District of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown in the Contract Documents.

No excavations were made to verify the locations shown for underground utilities. The service connections to these utilities may not be shown on the plans. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work, which could result in damage to such utilities. The Contractor shall immediately notify the Project Manager as to any utility discovered by Contractor in a different position than shown in the Contract Documents or which is not shown on the Contract Documents.

Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of any work.

Existing Utility Lines; Removal, Relocation

The contractor has the responsibility to identify, with reasonable accuracy, all utilities necessary to complete their scope of work. The Contractor shall exercise due diligence and shall not be compensated by the District for the actual verified cost of locating, and removing, relocating, protecting or temporarily maintaining existing utility services.

- d. The District will furnish an existing utility survey as-built for reference.
- e. The Contractor shall hire an independent underground utility locator service company to identify and verify existing underground utilities within the scope of work. All cost and fees associated with this work shall be at the Contractor's own expense and included in the base bid.
- f. Upon completion of the independent underground utility locator survey and prior to any excavations, Contractor's project manager, superintendent and subcontractor are

required to conduct an onsite field verification of existing conditions, shall mark-out the utilities, and transfer all information to a working utility as-built. Contractor's utility survey as-built shall be submitted to District.

- g. In the event an existing utility service is interrupted or damaged the Contractor shall be required to make all necessary repairs within 4hrs. District, at their discretion, shall calculate and assess liquidated damages against the Contractor for disruption to Campus Operations, including but not limited to, extended loss of utility services resulting in shut down of classes, instructional labs, administrative offices, public safety offices, M&O offices and fire/life/safety services of students and staff. Contractor shall furnish to the District an on-call emergency repair contact list of contacts/companies, consisting of, but not limited to, fiber optics, communications, signal, gas, water, electric and sewer.
- h. Adjustment of the Contract Amount, Milestones and/or Contract Time will be allowed to the extent the existence of such revealed conditions directly causes an increase in Contractor cost and/or time of performance of the Work shall be subject to the conditions noted above.
- i. Contractor shall not be entitled to an adjustment in the Contract Amount, Milestones and/or Contract Time if: (1) Contractor was aware of the condition at the time of the bid; (2) The existence of discovery of the condition could have been discovered as a result of any examination, investigation, exploration, test and/or examination of the Project Site and areas adjoining the Project Site as required by the Bid Documents prior to Contractor submission of Bid.
- j. Contractor failed to provide notice in accordance with the General Conditions.
- k. If the Contractor believes any subsurface or physical condition uncovered, revealed or otherwise exposed at the project site is of such character and/or nature as to require a change in the Contract Documents; materially different from that shown, indicated or described in the Bid Documents; or an unusual nature materially different from conditions normally encountered and generally recognized as inherent in Work of the character provided for in the Bid Documents, then Contractor shall upon discovery notify the District/Project Manager in writing within (1) one calendar day.

T. BUILDING CONNECTIONS:

- 1. Shutdowns to any utilities of existing Campus buildings shall be coordinated with the Project Manager and Campus. Notification to Project Manager and Campus must occur a minimum of 2 weeks prior to utility disruption and coordinated with Campus Operations.
- 2. Any and all stucco and plaster repairs to be included in Contractors bid for existing building connections, penetrations to be protected against inclement weather conditions, and patched immediately to ensure protection.
- 3. Contractor is responsible for any and all repair including but not limited to: paint touch-up, drywall repairs, asphalt, concrete, plaster, framing, electrical, plumbing, etc. as a result of scope of work.

U. SWPPP / BMPs / DUST CONTROL

- 1. Furnish, install, monitor, document and maintain throughout the duration of the project, all SWPPP and BMP measures as required in the contract documents and state/local mandates or requirements. Measures include, but are not limited to stabilize construction

entrances, silt fences, gravel bag barriers, catch basin, sediment barriers, fiber rolls, all details, and as required.

2. Provide dust control and cleanup of streets while on site. Streets must remain clean each day. Use street sweeper and hand sweeping as necessary to keep streets clean.
3. Contractor to comply with Storm Water Pollution control including conformance with erosion control plan and protection of own work as applies. Contractor is responsible to furnish, install and implement the erosion control plan complete per plans and specifications. Work is to include all sandbags, hay bales, swales, rumble pads, etc. as required to complete a system in compliance with all Federal, State, and Local requirements. All Contractors are responsible for repair and replacement of erosion control measures disturbed by or required by their own operations. Contractor shall follow all directions given by the Project Manager. All requested work shall be at no extra cost to the Owner or Project Manager.

V. WORK COORDINATION:

1. Contractor shall perform all construction activities as required per the contract documents, including but not limited to, removal and demolition of site areas, building elements and all connections as called out in drawings and site plans. Research existing record drawings and "as-built" for utility locations, "potholing" site as necessary to determine location of underground utilities, disconnecting, capping or sealing, and removing site utilities, re-routing of existing underground utilities, and field surveys as directed by the Owner.
2. All required pothole utility operations, as required to verify exact locations of existing utilities. Contractor is required to utilize a utility locating company, and ground penetrating radar as necessary to avoid damage to any existing utilities which remain. Contractor to immediately repair any damaged utility lines at their own cost.
3. As applicable and as necessary to conduct scope of work, vacuum excavator to be used at existing utility locations/sites to provide maximum protection of existing utilities.
4. Maintain full, uninterrupted and continuous use of all existing water, sewer, gas, electrical, and telecommunications / low volt systems at all Campus buildings. Provide temporary measures as needed and or required in order to ensure that this requirement is continuously met. Make all required notification as required per the specification prior to any shut down of existing systems.
5. Irrigation and sprinkler heads to be capped off in any construction activity areas.
6. Maintain adjacent irrigation systems to maintain existing landscape past the limits of work.
7. Tree protection: Provide temp fence at drip line of all trees. No storage or equipment to be placed in these areas.
8. Coordinate with the Project Manager and Owner, the lineal footage of trenching to be opened at any one time. The construction activities cannot impede the operations of the campus. Construct and install as required, safety barricades and construction canopies for student and staff access to adjacent Campus Buildings and any area requiring coordination of egress and ADA access. Contractor shall provide trench plates at all open locations at the end of each day to provide pedestrian and vehicle access at all times.

9. Coordinate layout and sequence of work with other Contractors working on Campus. Bring to the attention of the Project Manager when coordination is required as related to Contractors scope of work.
10. Patch and repair pavement and resurface roadways where construction impacts have occurred.
11. Contractor shall remove and replace existing hardscape in kind.

V. SITE CLEARING AND DEMOLITION:

1. Contractor shall make note of any existing damage and notify the Project Manager prior to the start of work. Contractor to schedule a day with the Project Manager to walk the project site, adjacent off site, and building. Contractor to video tape existing condition and forward a copy of the video tape to the Project Manager for the District records prior to start of Construction. Any damage not noted and brought to the attention of the Project Manager, shall be repaired at the expense of the contractor.
2. Remediation and Abatement of any unforeseen Hazardous Materials will be required to be completed and proper clearance received by the District Environmental Consultant.
3. Site Lighting: Existing site lighting within the new building pad will need to be demolished and circuits retained to existing fixtures that are to remain to keep them operational.
4. Provide all site clearing and any demolition as required per contract documents, including but not limited to removal of all planting and landscaping material within areas of work including root systems, removal of existing site improvements, including asphalt paving, walkways, utility and irrigation system components, and related items, protection of existing trees to remain in planted areas, and demolition of structures as indicated on contract documents.
5. Removal of site concrete, walkways, and landscape as required for new construction. New walkways/pathways/sidewalks shall conform to ADA requirements.
6. All landscape repair and replacement due to construction activities indicated in contract documents are to be included in Contractors bid proposal.
7. Shoring where required. Shoring design, when required by state or safety regulations is to be prepared and stamped by an Engineer licensed with the State of California and all associated costs to be in the Contractors scope.
8. All OSHA approved temporary gang ladders, stairs, scaffolding, lifts and any other safety equipment as required accommodating the scope of work with all related permits, special permits as applicable and all height requirements accounted for.
9. All dewatering, pumping of rain water or minor ground water seepage as required for proper completion of the scope of work.
10. Daily cleanup of Contractor's debris, packing materials, boxes, daily trash: remove from site each day. Provide removal of debris from jobsite, including fees as necessary. Jobsite to be kept in a "broom-swept" condition at all times.

11. Prior to cutting concrete floors, walls or roofing: Contractor to provide x-ray to ensure rebar reinforcement is not removed.
12. Protection of all work and exteriors as necessary to prevent water damage to the interior from irrigation or weather elements.
13. Provide all weight and disposal tickets as necessary to comply with contract documents.
14. Include all necessary / incidental demolition to access areas that are schedule to be removed or connected as necessary.
15. Interior: Repair any walls or ceilings damaged as a result of connections to the existing buildings during demo or modification as necessary to install the scope of work. Exterior: Repair any roofing, plaster, finishes, concrete, etc. or related materials as necessary to install scope of work.
16. Protect all structures, appurtenances, equipment, finishes, etc. scheduled to remain as a result of new construction, repair work or connections to all existing buildings. Contractor shall take necessary provisions to provide protection measures for existing ornamental and architectural existing finishes to remain in place. Items to be protected in place are including but not limited to, theatrical audience chairs, windows, ceilings, architectural tiles and lights.
17. Provide appropriate caps or safe-off as required at Applied Technology Project construction site.
18. Contractor to provide all safety measures at any opening in roof, wall, floor or trench to meet all regulatory requirements.

W. HAZARDOUS REMEDIATION WORK:

- 1 *Lead-containing paints, coatings, and glazings are known to be present on the project site. Owner has a zero-tolerance policy for uncontrolled lead releases during Lead Related Construction Activities. At no added cost to the Owner, all project site trades shall ensure compliance with California Code of Regulations Title 8 Section 1532.1 Lead. Each employer who has a workplace or operation covered by this standard shall initially determine if any employee may be exposed to lead at or above the action level and take all necessary steps to comply with the regulations.*
- 2 Unforeseen asbestos, lead and transite or any other hazardous materials will be addressed through the allowances.
- 3 All hazardous materials which will be impacted during the demolition in the subject project are to be removed as part of this project scope.
- 4 Provide copies of all required notifications / certifications to the Project Manager and environmental consultants, as applicable.
- 5 During all work, provide monitoring and worker protective equipment in accordance with the California Occupational Safety and Health Administration (Cal-OSHA) and as required by all regulating agencies. Where there is conflict, the most stringent requirement shall apply.

- 6 Contractor shall provide all specialized staff to demo and legally dispose of any transite, lead asbestos, or any other hazardous materials as encountered. Contractor shall have staff with lead awareness training and/or any required hazardous abatement material training, as required to perform your work and all work will be scheduled for monitoring through the Project Manager for the District's Environmental Consultant: Citadel Environmental.
- 7 The abatement workers shall have received Cal-OSHA accredited training and be certified for asbestos abatement work. All removal and disturbance of asbestos-containing materials shall be performed by an asbestos abatement contractor, using 32-hour asbestos certified workers (Asbestos Worker trained as outlined in 40 CFR 763). Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of asbestos abatement, handling and disposal of asbestos-containing and/or asbestos-contaminated materials, and the subsequent cleaning of contaminated areas, including, at a minimum, Competent Person/Contractor Supervisor training as outlined in 40 CFR 763.
- 8 All removal and disturbance of lead-based materials shall be performed by a state-licensed contractor, using CDPH-certified workers with at least one CDPH-certified Supervisor. All removal and disturbance of lead-containing materials (not meeting the definition of "lead-based) as defined in 8 CCR 1532.1, shall be performed by a state-licensed contractor, using lead-trained workers with certification of training meeting the requirements of 8 CCR 1532.1. Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of lead abatement, handling and disposal of lead-containing and/or lead-contaminated materials, and the subsequent cleaning of contaminated areas.
- 9 When exposure monitoring of a particular lead-related task indicates that the permissible exposure limit (PEL) is or will be exceeded, the contractor shall use CDPH-certified lead workers to complete the task. Contractors performing work that disturbs any Lead Containing Materials (LCM) must submit proof of negative exposure assessment (NEA) if personal protective equipment is not to be used. It is necessary for the Contractor to coordinate all lead-related construction work with the specifications and all regulating agencies. During all work, provide monitoring and worker protective equipment in accord with the California Occupational Safety and Health Administration (Cal-OSHA) and as required by contract documents. Where there is conflict, the most stringent requirement shall apply.
- 10 For Cal/OSHA compliance purposes, all other painted, varnished, and glazed lead-containing surface coatings (LCSCs) require that contractors performing activities that will disturb these surfaces/materials comply with the requirements of 8 CCR 1532.1. These surfaces were identified in the above-referenced report to have detectable levels of lead, at concentrations less than 0.7 mg/cm² lead (the LBP standard) by X-Ray fluorescence.
- 11 Contractor shall utilize employees with HAZWOPER training, as outlined in 29 CFR 1910.120 and 8 CCR 5192, when handling all "other" hazardous materials, including fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and the like.
- 12 Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of asbestos, lead, and other hazardous materials), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the hazardous materials.

- 13 The Work may include the removal, transport, and disposal of the following contaminated Materials:
 - a. All hazardous materials identified.
 - b. All materials used for work area preparation.
 - c. All discarded personnel protective equipment.
 - d. All other potentially contaminated materials.
- 14 Damages caused during the performance of abatement activities shall be repaired by Contractor (e.g. paint peeled off by barrier tape, nail holes, water damage, etc.) at no additional expense to Owner, unless other arrangements and approval have been provided by the Owner.
- 15 Contractor to perform this work 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.
- 16 Transportation of Friable and Non-Friable Asbestos Containing Materials:
 - a. Contractor shall itself be or have a subcontractor who is a registered hazardous waste transporter with the State of California, Department of Toxic Substances Control.
- 17 Subcontractors shall hold all licenses applicable to specified trade work.
- 18 Comply with all federal, state, and local regulations pertaining to asbestos removal, storage, transportation and disposal; employee health and safety; Contractor certifications; and all licenses, permits, and training.
- 19 Contractor shall provide all labor, material, and equipment for PCB containing material removal, abatement and disposal in association with all demolition or connections to existing buildings. Workers involved in the removal of PCBs shall have received specific training on the hazards, appropriate personal protection and decontamination procedures associated with PCBs.
- 20 Contractor shall provide proper notification and obtain proper permits for the AQMD Air Quality District prior to start of work.
- 21 Contractor to keep all required paperwork onsite for review by AQMD.

X. ALLOWANCES:

Allowances to be included in the total bid amount as identified below. Use of any allowance will be at the sole discretion of the Owner/Project Manager and must be authorized in writing at the discretion of the Owner/Project Manager. No General Contractor or Subcontractor overhead and profit markups will be allowed on any allowance items. Any money used from the Allowances will be processed for payment to the Contractor using the District's Allowance distribution form. Any amount of money remaining in any of the Allowance line items upon completion of the Project will be deducted from the Contract by Deductive Change Order for the full amount(s) remaining therein. The Contractor has no beneficial interest in, and/or claim to, the Allowances and hereby disclaims any and all such interests.

BID ALLOWANCE	DESCRIPTION	VALUE (\$)
ALLOWANCE NO. 01	Unforeseen Conditions and Not Included in the Scope of Work	\$ 10,000.00

Allowance Subtotal

\$ 10,000.00

Y. CONCRETE WORK FOR ADA REPAIR OF SIDEWALKS, PATHWAYS, WALKWAYS:

1. Concrete allowance shall be used at Owners discretion. Allowance to be used for flatwork currently not identified in the drawings. All flatwork currently identified in the drawings shall be in Contractors bid proposal.
2. All concrete work and concrete repair work which will be impacted during the demolition and construction operations for the project are to be removed as part of this project scope and replaced as ADA compliant throughout the project.
3. Concrete panel Joint to joint replacement for a uniform and code compliant walkway. Demolition and concrete removal of panels to be joint to joint. Saw cutting to existing joints, reference drawings to replace existing concrete per section, contractor to match finish, color and grades to existing concrete and maintain positive drainage. Cross slope shall not exceed 2% maximum.
4. Provide flush transition and replace accessible slopes where accessible walkways are disrupted.

Z. CONCRETE WORK

1. All pumping, placement, and finish of concrete as required.
2. Concrete trucks to be washed out at an area as designated by Project Manager. Washout and containment receptor shall be water tight to not allow leakage. Contractor shall be responsible for containment and removal of washout debris and any other hazardous waste, including water, generated by its operation to a legal dumpsite offsite. No pit clean-out areas will be allowed.
3. Provide all forming of concrete at retaining walls, patch back, sack, and slurry.
4. All placement of all concrete and finishing as required per the contract documents requirements.
5. All OSHA approved temporary gang ladders, stairs, scaffolding, lifts and any other safety equipment as required to accommodate scope of work.
6. Provide concrete mix design from a primary and secondary supplier in case of material shortage.
7. Provide all rigging, storing, and hoisting of concrete reinforcement as required for the scope of work. Reinforcement steel and/or mesh to be stockpiled to an area designated by Project Manager.

8. All backfilling and compaction of soil and/or base against walls.
9. Furnish and install all grouting and dry packing associated to the concrete activities
10. All sacking and patching of concrete work, as required.
11. All caulking, expansion joints, construction joints, backer rods and joint sealing at flat work and wall joints as indicated on the contract documents.
12. All concrete additives as required.
13. Provide rebar caps as required by OSHA.

AA. TEMP FACILITIES / TEMP UTILITIES

1. Contractor to provide and pay for the following: temp fencing, temp toilets, dumpsters, hand washing stations, water, electrical, phone, trailer, temp power, job site water, drinking water, data and security for the duration of the project. All temporary utilities required by the Contractor are required to be metered separately. See Exhibit D.

BB. GENERAL WORK REQUIRED

1. Any haul routes to be coordinated with Campus operations, Project Manager and any city or agency requirements and ordinances, including permits. .
2. Permits / Fees / Agency Notification / Compliance / Ordinances
3. Any and all other permit and/or service fees, assessments, or bonding required in conjunction with the work of this Contractor shall be the responsibility of the Contractor.
4. All notifications with various agencies required in the performance of the work shall remain the responsibility of the Contractor.
5. Compliance with regulatory agency, organization, and governing body requirements having jurisdiction over Contractors scope of work.
6. Contractor shall provide all necessary safety measures required for each work area including but not limited to: Temporary fencing with privacy screen as required, completely securing, and controlling each work area. Contractor shall move fencing as required to each area of work as required. Submit plan showing the layout of the fencing to the Project Manager for approval prior to installing temporary fencing. Temporary fencing shall be minimum 6' high relocatable fence panels (as appropriate). Fence panel bases shall be located to avoid trip hazards in all paths of travel. Barricades, traffic plates, temporary patching, temporary signage required for safely delineating all detours, road lane and pathway closures and rerouting, traffic control, safety warnings.
7. Contractor shall prepare and submit to the Project Manager for approval a traffic control and pedestrian pathway control plan prior to starting work in any area cover by the scope of work for review. Traffic control plan as required to be approved by the City jurisdiction.
8. There may be other District Contractors involved in the project or working on the Campus. It is the responsibility of this Contractor to be aware of other operations with the coordination of the Project Manager, and be aware of all others working in order to coordinate work accordingly.

9. Prior to use of bobcat or any equipment involving 2nd floor or roof, contractor to provide engineers statement that the weight of the equipment is appropriate to use for the floor design criteria.
10. Contractor shall furnish to the Project Manager at the end of each day, completed daily reports, and safety meeting reports. Reports shall include: name of each worker performing work each day, classification for each worker employed on the project (including any sub-tier subcontractors' workers), a description of work performed, and any equipment used for each day. Contractor forms to be provided by Project Manager. Current daily reports are a condition of release of monthly payment to the Contractor.
11. Responsibility for storage and security of own materials and/or equipment located on and off the jobsite property. Location of staging area to be determined / approved by Project Manager. Own work shed, yard, lighting and security fence, if required for storage.
12. Contractor shall be responsible to provide and maintain adequate dust control and street cleaning all areas of work and public pathways, haul routes and campus streets and walkways throughout the duration of their scopes of work. These measures must be done to the satisfaction of the District and Project Manager.
13. Off-loading, scaffolding, ladders, hoisting and moving of materials and/or equipment for own work.
14. Contractor is responsible for temporary power, portable lighting and extension cords necessary to complete the scope of work. Contractor will be responsible to provide general egress/ingress pedestrian, parking lot, walkway, safety, etc. OSHA required temporary lighting. Contractor shall provide their own task lighting, including any extension cords, generators and light stands as may be required.
15. Provide and maintain dewatering operation as required to eliminate ponding of water immediately after rainfall has occurred in order to allow these areas to dry out as quickly as possible. Dewatering to be done by whatever means necessary, including mechanical pumps, siphons, etc. Any SWPPP measures defeated or removed in the dewatering process shall be replaced per the posted SWPPP plan by the Contractor. Dewatering for grading operation, trenches, footings, pits, slab areas, etc., shall be done immediately by Contractor.
16. Upon failure by Contractor to provide sufficient cleanup, and after 24-hour Notice, Project Manager will perform the cleanup and assess all costs against the Contractor's Contract, which have failed to perform clean up. If lack of cleanup results in an immediate safety concern to public safety the District and Project Manager shall have right to correct any situation.
17. Contractor is responsible for environmental conditions (i.e. temperature, moisture, etc.) affecting own work.
18. Provide survey, layout and field measurements for own work.
19. Safety requirement for own work, in compliance with most recent OSHA regulations Specification Section 01 4005 and in cooperation with the District's safety requirements. Hardhats, boots, eye protection, long pants and shirts, and 100% tie off are required for all personnel at all times during construction of the Project. Failure to comply with any Safety Regulations will be grounds for removal of personnel from the jobsite. Flammable products must be continually stored per OSHA regulations.

20. Job hazard analysis, IIPP, site specific safety plan must be submitted to Project Manager prior to commencement of work.
21. Contractor to comply with all ordinances regarding parking, hours of work and routing of delivery trucks to the project site, and as required by the District and Campus management staff.
22. Contractors and employees will be required to park in designated areas as directed by the Project Manager. No parking will be allowed within Campus student/staff/employee lots. Contractor shall provide provisions as required for own employees, equipment, suppliers and sub-tier contractors.
23. Compliance with specified warranty and guarantee requirements, both standard and special.
24. Provide one qualified Superintendent and one lead foreman for the duration of own work on project, including punch list corrections at completion of project. Superintendent and/or Foreman must be on-site when work is being performed. Superintendent / Foreman may not be changed without Project Manager's approval.
25. Attendance at jobsite coordination, scheduling and safety meetings shall be by the Contractors Project Manager and Superintendent at a minimum.
26. Multiple move-ons to comply with the project's schedule or as required.
27. Provide relocation of staging area as necessary due to construction progress and as directed by Project Manager.
28. Contractor has primary responsibility for locating existing utilities prior to commencing underground work. Contractor must make own notification to required agencies and hold a pre-dig conference prior to starting underground work. Contractor should not rely on any representation made by anyone other than those individuals duly authorized to survey, locate and stake existing utilities. All utilities slated for removal or cap off must be potholed and exposed prior to removal of cap off. Should location of utilities differ from those shown on the contract documents contractor shall make every effort to locate said at no cost to the District.
29. All welding required for own work. Submit current and valid welder's certifications prior to beginning any welding installation on site for IOR, District or Project Managers review.
30. Additional testing costs as required should initial tests fail as a result of the scope of work.
31. All project record documents as required per plans and specifications. Monthly updates of as-built documents on record plan set, and transfer to project as built set at end of the project as required by specifications. Update as-built drawing on a weekly basis.
32. All project record documents as required per plans and specification.
33. Contractor is responsible for access onto the site for scope of work (i.e. cranes, concrete trucks, etc.)

34. Contractor shall be responsible for coordinating the structural drawings with architectural, mechanical, electrical, plumbing, civil, and general for all aspects and coordination of work.
35. Warranty period starts at Notice of Completion for all systems of the Applied Technology Project. All systems must be operational and accepted by the owner.

CC. COORDINATED DRAWINGS

1. Submit drawings that indicate routing, locations sizes, types and number of components in concealed spaces where potential conflict may occur between structures, mechanical, electrical, Automatic Fire Sprinkler System (AFSS), communications and ceiling suspension systems.
2. Indicate locations of ceiling penetrations and surface-mounted items. Provide cross sections at areas to indicate proper support of ceilings and non-interference with work of other Sections of specifications. Cross sections shall indicate coordination required and proposed solutions for routing of elements where potential conflict exists. Reproduction of Architect's reflected ceiling plan is not acceptable
3. LEAD PAINT: indicate proposed routing of electrical conduit, mechanical piping and ductwork, and miscellaneous framing before demolition or removal of painted surfaces, which may penetrate or disturb existing surfaces so in event of lead paint existence, accurate locations and scope of Work to abate lead paint can be determined by Owner.
4. Drawings shall be based on field measurements, shop drawings and product data.
5. Conflicts shall be brought to Architect's attention immediately.
6. Submit to Architect, in writing, requests for clarification or interpretations that will affect intent and/or scope of Contract Documents.
7. Coordinated drawings shall indicate each class of Work in affected area. Drawing or written submittal shall include Contractor's recommendations for solution of any potential conflicts as well as recommendations tendered by any Work of any Section of Specifications which may be affected thereby.
8. Submit coordinated drawings in scale of not less than 1/8" = 1'-0" with necessary sections and profiles at an appropriate, clearly readable enlarged scale. Submit coordinated drawings as one electronic (CD) copy and one bond (hard) copy.
9. Architect will review submittals, make appropriate notations and comments to ensure solution meets intent of Contract Documents and then return to Contractor for implementation.
10. Contractor shall be responsible for proper coordination of Work of Sections of Specifications in execution of coordinated drawings. Installation of materials, components or equipment under one Section of Specifications without full and complete, agreement, knowledge and consent by fabricators of adjacent or otherwise related or affected Work will not be approved.
11. It shall be incumbent upon Contractor that fabricators of Work involved in execution of coordinated drawings be informed, consulted and advised in sufficient advance time to arrive at solutions where no extension of contract time for extra cost to Owner will be

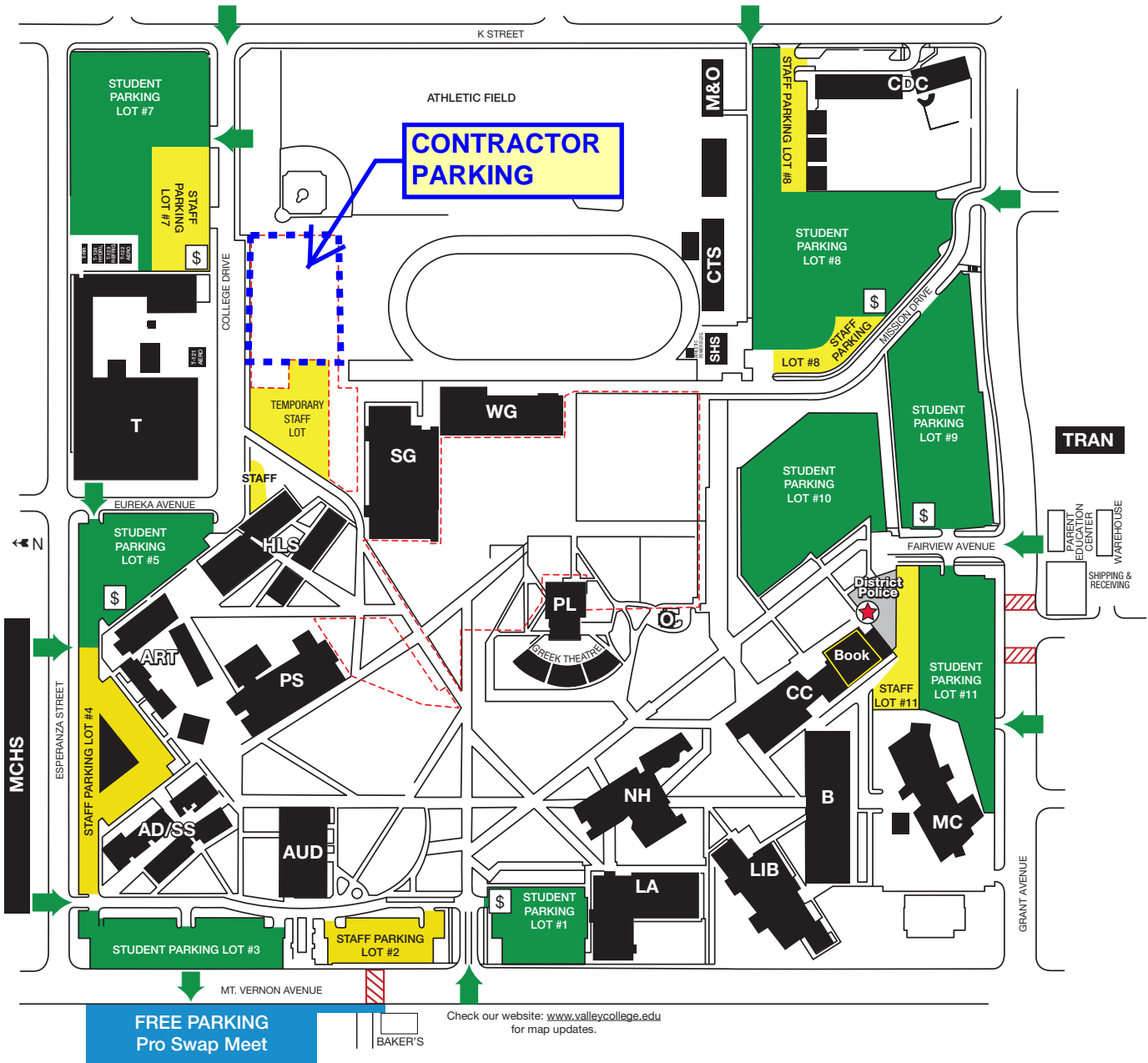
March 2018

approved due to Contractor's negligence in expeditious, timely submittal of coordinated drawings.

EXHIBIT I

San Bernardino Valley College

701 South Mount Vernon • San Bernardino, CA 92410 • (909) 384-4400



Check our website: www.valleycollege.edu for map updates.

- INDICATES CONSTRUCTION AREAS
- ➔ ARROWS DESIGNATE STUDENT PARKING LOT ENTRANCES
- \$ INDICATES PARKING PERMIT DISPENSER
- CROSSWALK
- ? INDICATES APPROVED SMOKING AREAS (10)
This is a smoke-free campus - smoking in non-designated areas or buildings may result in the issuance of a citation (Board Policy #3570; Government Code #7597)

Building Symbols	
AD/SS..... Administration/Student Services (Note: AD rooms are located in AD/SS)	MC.....Media/Communications
ART.....Art Center	MCHS..... Middle College High School
AUD..... Auditorium	M&O..... Maintenance & Operations
B..... Business	O..... Observatory
BOOK..... Bookstore	PL..... Planetarium
CC..... Campus Center	PS..... Physical Sciences
CDC..... Child Development Center	SG..... Snyder Gym
CTS..... Computer Technology Services	SHS..... Student Health Services
HLS..... Health & Life Science	T..... Technical
LA..... Liberal Arts	TRAN..... Transportation Center
LIB..... Library	WG..... Women's Gym

DISTRICT POLICE
Campus Center Rm. 100
(909) 384-4491

Parking permits/decals are required to park in all parking lots and on all college streets.

Parking in disabled stalls requires a valid California disabled placard and a valid SBCCD parking permit/decals.

EXHIBIT J

Liberal Arts Asbuilts

See attachments. File to
large to attach to this
document.

EXHIBIT J

Planetarium Asbuilts

See attachments. File too large to attach to this document.

EXHIBIT K

EXHIBIT K

Project

APPLIED TECHNOLOGY RENOVATION

Report Date:

October 15, 2014

Data From September 2014

Total Number of Workers: 45

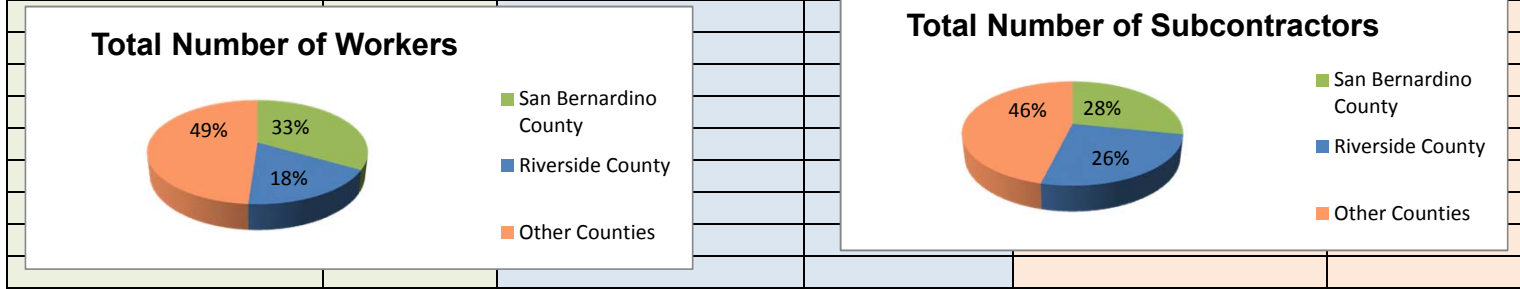
San Bernardino County		Riverside County		Other Counties	
City	# of Workers	City	# of Workers	City	# of Workers
Bloomington	1	Corona	1	Anaheim	1
Crestline	1	Menifee	1	Bellflower	1
Fontana	2	Moreno Valley	1	Covina	1
Rancho Cucamonga	1	Murrieta	1	Cypress	1
Rialto	2	Norco	2	Escondido	1
San Bernardino	5	Riverside	2	Glendora	1
Victorville	2			Huntington Park	1
Wrightwood	1			La Cresenta	1
				Ladrea Ranch	1
				Lakewood	1
				Lancaster	1
				Long Beach	1
				Los Angeles	4
				Orange	1
				Pomona	1
				San Dimas	1
				Stanton	1
				Sunland	1
				West Covina	1
Total	15	Total	8	Total	22

NOTE: All attached forms must be filled out on a monthly basis, due on the 10th of every month. The data shall represent the month before. e.g. When submitting report on October 10th, the data shall represent the month of September.

Data From September 2014

Total Number of Subcontractors: 39

Number of Subcontractors from San Bernardino County	11	Number of Subcontractors from Riverside County	10	Number of Subcontractors from Other Counties	18
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**Measure M - Local Hire Payment Reporting Forms
Cumulative, as of 09/31/14**

Project	Total Contract Amount	Contractor Name	Division of Work / Trade / Classification	Contract Totals			Wages		Notes
				Local - Riverside County	Local - San Bernardino County	Non-Local	Local Wages	Non-Local Wages	
Applied Technology	\$ 171,500.00								
		Concrete Inc.	Concrete	\$ -	\$ 30,000.00	\$ -	\$ 18,606.10	\$ 1,132.20	
		Demolition Inc.	Demolition	\$ -	\$ 100,000.00	\$ -	\$ 13,321.40	\$ 3,641.00	
		Electrical Inc.	Electrical	\$ 15,000.00	\$ -	\$ -	\$ 3,383.00	\$ 1,074.00	
		Surveying Inc.	Surveying	\$ -	\$ 1,500.00	\$ -	\$ 300.00	\$ -	
		Landscape Inc.	Landscape	\$ -	\$ -	\$ 25,000.00	\$ -	\$ 3,294.00	
			Totals	\$ 15,000.00	\$ 131,500.00	\$ 25,000.00	\$ 35,610.50	\$ 9,141.20	
				9%	77%	15%	80%	20%	
		Concrete Inc.	Concrete		\$ 30,000.00				
		John Smith	Laborer Group 01				\$ 13,257.60		
		Jane Smith	Laborer Group 02					\$ 1,132.20	
		John Doe	Cement Mason				\$ 5,348.50		
		Demolition Inc.	Demolition		\$ 100,000.00				
		John Smith	OP Eng 08 Journey				\$ 6,947.40	\$ -	
		Jane Smith	Labor 04 Journey				\$ -	\$ 2,045.00	
		Jane Doe	Apprentice 2				\$ -	\$ 1,596.00	
		John Doe	OP Eng 08 Journey				\$ 6,374.00	\$ -	
		Electrical Inc.	Electrical	\$ 15,000.00					
		John Smith	Foreman - Inside Wireman				\$ 3,383.00	\$ -	
		Jane Smith	Journeyman - Inside Wireman				\$ -	\$ 1,074.00	
		Surveying Inc.	Surveying		\$ 1,500.00				
		John Smith	Chief				\$ 300.00	\$ -	
		Landscape Inc.	Landscape			\$ 25,000.00			
		John Smith	Laborer Group 01				\$ -	\$ 1,371.00	
		Jane Doe	Laborer Group 01				\$ -	\$ 586.00	
		John Doe	Laborer Group 01				\$ -	\$ 1,337.00	



**SAN BERNARDINO VALLEY COLLEGE
 APPLIED TECHNOLOGY RENOVATION
 ISSUED FOR CONSTRUCTION**

**DSA APPLICATION #04-113500
 FILE # 36-2C
 OCTOBER 2014**

MONTHLY SUMMARY REPORTING FORM

DEMOGRAPHIC TRACKING, CERTIFIED PAYROLL, AS-BUILD CONFIRMATION

PROJECT: _____

CONTRACTOR: _____

CONTACT NAME AND PHONE #: _____

PAY APPLICATION #: _____ PAY PERIOD: _____

LOCAL, VETERAN & APPRENTICE HIRES:

TOTAL HIRES	LOCAL HIRES		VETERAN HIRES		APPRENTICE HIRES	
	TOTAL	PERCENT	TOTAL	PERCENT	TOTAL	PERCENT

CERTIFIED PAYROLL:

Contractor hereby confirms that all Certified Payroll is current to this period.

Contractor:

 Signature

 Print Name



**SAN BERNARDINO VALLEY COLLEGE
APPLIED TECHNOLOGY RENOVATION
ISSUED FOR CONSTRUCTION**

**DSA APPLICATION #04-113500
FILE # 36-2C
OCTOBER 2014**

AS BUILTS:

Contractor hereby confirms that all As-Builts are up to date.

Contractor:

Signature

Print Name

DAILY CONSTRUCTION REPORTS:

Contractor hereby confirms that all Daily Construction Reports have been submitted.

Contractor:

Signature

Print Name



**SAN BERNARDINO VALLEY COLLEGE
 APPLIED TECHNOLOGY RENOVATION
 ISSUED FOR CONSTRUCTION**

**DSA APPLICATION #04-113500
 FILE # 36-2C
 OCTOBER 2014**

LOCAL HIRE SUPPLEMENTAL INFORMATION:

Provide the requested information for each “local hire” employee (that is, employees of Contractor and its subcontractors employed on this project who are residents of either Riverside County or San Bernardino County). Attach additional pages if necessary.

Contractor’s Local Hire Employees

Employee’s Name	Home Address	Job Title	Period of Employment*

Subcontractor’s Local Hire Employees

Name of Subcontractor: _____

Employee’s Name	Home Address	Job Title	Period of Employment*

* indicate hiring and termination dates. State “to present” where employee is still employed on the project as of the date of this report.

EXHIBIT L

CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT (“Agreement”), is entered into this [REDACTED] day of [REDACTED], 2017 in the County of San Bernardino of the State of California, by and between the San Bernardino Community College District (“DISTRICT”) and _____ (“CONTRACTOR”).

WITNESSETH that the DISTRICT and the CONTRACTOR for the consideration stated herein agree as follows:

ARTICLE 1 - SCOPE OF WORK: The CONTRACTOR shall furnish all labor, materials, supplies, products, design and engineering services, equipment, tools, utility and transportation services, apparatus, and the like, and perform and complete all work required in connection with the project commonly referred to as **Fire Alarm - Planetarium & Liberal Arts Upgrade RFP # 01-1617-01 (“Project”)** in strict accordance with the Contract Documents enumerated in Article 8 below. The CONTRACTOR shall be liable to the DISTRICT for any damages arising as a result of a failure to comply with all of these obligations, and the CONTRACTOR shall not be excused with respect to any failure to so comply by an act or omission of the Inspector of Record, the Riverside County (“Planning Department”), or representative of any of them, unless such act or omission actually prevents the CONTRACTOR from fully complying with the contract documents and the CONTRACTOR protests, in accordance with the Contract Documents, that the act or omission is preventing the CONTRACTOR from fully complying with the Contract Documents. Such protest shall not be effective unless reduced to writing and filed with the DISTRICT within seven days of the date of occurrence of such act or omission preventing the CONTRACTOR from fully complying with the Contract Documents. Everything called for by the Agreement is sometimes also referred to as the “Work.”

ARTICLE 2 - TIME OF COMPLETION: Once the CONTRACTOR has received the Notice to Proceed from the DISTRICT, the CONTRACTOR shall proceed as identified therein as well as required by the Project Schedule, and shall diligently schedule, execute, and fully complete the required Work in accordance with the current Project Schedule and within the time period specified in the Notice to Proceed. The Project duration shall be 146 calendar days. **Construction must start on May 29, 2018 and must be completed no later than August 10, 2018 in order to allow the Campus to obtain beneficial occupancy by August 13, 2018. See Exhibit A Specification 00 30 08 for more details on project duration and milestones.**

It is expected that the DISTRICT will issue the Notice to Proceed to the CONTRACTOR within 90 days of the CONTRACTOR’s execution of this Agreement. But it is expressly understood that with reasonable notice to the CONTRACTOR, the DISTRICT may postpone issuing the Notice to Proceed. It is further expressly understood that the CONTRACTOR shall not be entitled to any claim of additional compensation as a result of the DISTRICT’s postponement of the issuance of the Notice to Proceed.

ARTICLE 3 –LIQUIDATED DAMAGES: The CONTRACTOR shall pay the DISTRICT \$3,000.00 per day as liquidated damages for each calendar day of unexcused delay that the Work remains unfinished beyond the completion date as set forth in the Project Schedule that is caused by the CONTRACTOR or by those for whom the Contractor is legally responsible for to the District. The DISTRICT may deduct such liquidated damages from any payments due or to become due to CONTRACTOR. This provision shall not limit any rights or remedies of the DISTRICT in the event any other default of the CONTRACTOR other than failing to complete the Work by the completion date.

March 2018

ARTICLE 4 - CONTRACT PRICE: The DISTRICT shall pay to the CONTRACTOR as full consideration for the faithful performance of this Agreement, subject to any additions or deductions as provided in the Contract Documents, the sum of [REDACTED] DOLLARS (\$ [REDACTED]), said sum being the total amount stipulated in the CONTRACTOR's proposal. Payment shall be made as set forth in the General Conditions.

Should any Change Order, Partial Change Order, Construction Directive, or Compromise result in an increase or decrease in the Contract Price, the cost of such Change Order, Partial Change Order, Construction Directive, or Compromise, shall be agreed to in advance by the CONTRACTOR and the DISTRICT, subject to the limitations set forth in the applicable Public Contract Code sections. In the event that the CONTRACTOR proceeds with a change in the Work without an agreement between the DISTRICT and CONTRACTOR regarding the cost of a Change Order, Partial Change Order, Construction Directive, or Compromise, the CONTRACTOR waives any claim of additional compensation for such additional work. The DISTRICT's Vice Chancellor has received delegated authority from the DISTRICT's Governing Board to approve additive and deductive Change Orders, Partial Change Orders, Construction Directives, and Compromises, and to bind the DISTRICT thereto, in the amount of the monetary limitations set forth in the applicable Public Contract Code sections. See General Conditions, Article 7, for further details.

ARTICLE 5 – DEFENSE – INDEMNIFICATION – HOLD HARMLESS OBLIGATIONS: CONTRACTOR shall defend, indemnify, and hold harmless the DISTRICT, the Architect, the Inspector of Record, Project Manager, and the State of California, and their respective officers, trustees, employees, agents, and independent contractors, from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs, and expenses, of any kind, arising from death, personal injury, property damage, or other cause, based or asserted upon any act, omission, or breach connected with or arising from the Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, CONTRACTOR shall protect and defend, at its own expense, the DISTRICT, the Architect, the Inspector of Record, the State of California, and their respective officers, trustees, employees, agents, and independent contractors, from any such legal action, including attorneys' fees and legal costs.

Furthermore, CONTRACTOR hereby agrees to defend, indemnify, and hold harmless the DISTRICT, the Architect, the Inspector of Record, the Project Manager, and the State of California, and their respective officers, trustees, employees, agents, and independent contractors from every claim or demand made, and every liability, loss, damage, expense, or attorney's fees and legal costs, of any nature whatsoever, which may be incurred by reason of:

(a) Liability for: (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage, or expense, sustained by any person, firm, or corporation in connection with the Work called for in this Agreement or the Contract Documents, except to the extent resulting from the sole negligence or the sole willful misconduct of the DISTRICT.

(b) Any bodily injury to or death of persons, or damage to property, caused by any act, omission, or breach of the CONTRACTOR, or by any person, firm, or corporation employed or retained by the CONTRACTOR, either directly or by independent contract, including all damages or injury to, loss (including theft), or loss of use of, any property, sustained by any person, firm, or corporation, including the DISTRICT, arising out of or in any way connected with the Work

covered by this Agreement or the Contract Documents, but not for any loss, injury, death, or damages caused by the sole negligence or sole willful misconduct of the DISTRICT.

(c) Any dispute between the CONTRACTOR and the CONTRACTOR's subcontractors, suppliers, agents, or sureties, including, but not limited to, any failure or alleged failure of the CONTRACTOR (or any person hired or retained directly or indirectly by the CONTRACTOR) to pay any subcontractor of any tier, or any other person employed in connection with the Work, or in connection with the filing of any stop notice or mechanic's lien claims.

(d) Any breach of the Agreement by the CONTRACTOR.

CONTRACTOR, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, and other proceedings that may be brought or instituted against the DISTRICT, its officers, trustees, agents, or employees, on any such claim or liability, and shall pay or satisfy any judgment that may be rendered against the DISTRICT, or its officers, trustees, agents, or employees, in any action, suit, or other proceedings as a result thereof.

The Parties agree to comply with the dispute resolution procedures set forth in Public Contract Code Section 9204, as applicable.

ARTICLE 6 - CONTRACTOR'S INSURANCE:

6.1 Insurance Requirements. Before the commencement of Work on the Project, the CONTRACTOR shall purchase from and maintain in a company or companies lawfully authorized to do business in California, with a financial rating of at least A+ status as rated in the most recent edition of Best's Insurance Reports, such insurance as will protect the DISTRICT from claims set forth below, which may arise out of or result from the CONTRACTOR's operations under this Agreement and for which the CONTRACTOR may be legally liable, whether such operations are by the CONTRACTOR, or by anyone directly or indirectly employed or retained by CONTRACTOR, or by anyone for whose acts CONTRACTOR may be liable, including insurance coverage for the following:

- (a) Claims for damages because of bodily injury, sickness, disease, or death of any person, including employees, contractors, and agents of the DISTRICT;
- (b) Claims for damages insured by usual personal injury liability coverage which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the CONTRACTOR or by a subcontractor or agent of the CONTRACTOR;
- (c) Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from acts or omissions under this Agreement or the Contract Documents;
- (d) Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work for the Project;

- (e) Claims involving contractual liability applicable to the CONTRACTOR's obligations under this Agreement and the Contract Documents, including liability assumed by and the indemnity and defense obligations of the CONTRACTOR and its subcontractors;
- (f) Claims involving completed operations, independent contractors' coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, or excavating; and
- (g) Claims involving sudden or accidental discharge of contaminants or pollutants.

6.2 Additional Insured Endorsement Requirements. The CONTRACTOR shall name, on any policy of insurance required under Article 6.1 above, the DISTRICT, the Architect, the Inspector of Record, the State of California, and their respective officers, trustees, employees, agents, and independent contractors as additional insureds. The CONTRACTOR also shall ensure that all of the CONTRACTOR's subcontractors name the same additional insureds. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the CONTRACTOR pursuant to this Article must be designated in the policy as primary to any insurance obtained by the DISTRICT. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

6.3 Specific Insurance Requirements. The CONTRACTOR shall take out and maintain and shall require all of its subcontractors, if any, whether primary or secondary, to take out and maintain:

- (a) **General Liability Insurance.** Comprehensive General Liability Insurance with a combined single limit per occurrence of not less than \$1,000,000.00 or Commercial General Liability Insurance (including automobile insurance) which provides limits of not less than:
 - i. Per occurrence (combined single limit).....\$1,000,000.00
 - ii. Project Specific Aggregate (for this project only) ... \$1,000,000.00
 - iii. Products and Completed Operations.....\$500,000.00
 - iv. Personal and Advertising Injury Limit.....\$500,000.00

6.4 Workers' Compensation Insurance. During the term of this Agreement, the CONTRACTOR shall provide workers' compensation insurance for all of the CONTRACTOR's employees working on the Project under this Agreement and, in case any of the CONTRACTOR's work is subcontracted, the CONTRACTOR shall require the subcontractor to provide workers' compensation insurance for all the subcontractor's employees working on the Project. Any class of employee not covered by a subcontractor's insurance shall be covered by the CONTRACTOR's insurance. In case any class of employee working on the Project under this Agreement on the Project is not protected under the workers' compensation laws, the CONTRACTOR shall provide or cause a subcontractor to provide adequate insurance coverage

for the protection of those employees not otherwise protected. The CONTRACTOR shall file with the DISTRICT certificates of insurance in accordance with Labor Code § 3700.

6.5 Other Insurance. The CONTRACTOR shall provide all other insurance required to be maintained under applicable laws, ordinances, rules, and regulations.

6.6 Proof of Insurance. The CONTRACTOR shall not commence work on the Project, nor shall it allow any subcontractor to commence work on the Project until all required insurance and certificates have been obtained and delivered in duplicate to the DISTRICT for approval subject to the following requirements:

- (a) Certificates and insurance policies shall include the following clause: “This policy shall not be non-renewed, canceled, or reduced in required limits of liability or amounts of insurance until notice has been mailed to the DISTRICT.”
- (b) Certificates of insurance shall state in particular those insured, the extent of insurance, location, and operation to which the insurance applies, the expiration date, and cancellation and reduction notices.
- (c) Certificates of insurance shall clearly state that the DISTRICT and the Architect are named as additional insureds under the policy described, and that such insurance policy shall be primary to any insurance or self-insurance maintained by the DISTRICT.
- (d) The CONTRACTOR and its subcontractors shall produce a certified copy of any insurance policy required under this Section upon written request of the DISTRICT.

6.7 Compliance. In the event that the CONTRACTOR fails to furnish and maintain any insurance required by this Article, the CONTRACTOR shall be in default under the Contract. Compliance by CONTRACTOR with the requirement to carry insurance and furnish certificates or policies evidencing the same shall not relieve the CONTRACTOR from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the DISTRICT.

ARTICLE 7 - PROVISIONS REQUIRED BY LAW: Each and every provision of law and clause required to be inserted in this Agreement shall be deemed to be inserted herein, and this Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party, this Agreement shall forthwith be physically amended to make such insertion or correction.

ARTICLE 8 - COMPONENT PARTS OF THIS AGREEMENT: This Agreement consists of the following Contract Documents, all of which are component parts of the Agreement as if herein set out in full or attached hereto:

- Notice Inviting Bids
- Bid Proposal Form
- Designation of Subcontractors
- Non-Collusion Declaration (*Notarized*)
- Contractor’s Certificate Regarding Worker’s Compensation
- Acknowledgment of Bidding Practices

Bidder's Acknowledgement of Project Duration
Site Visit Certification (*Notarized*)
Substitution Request Form
General Conditions
RFP Documents
Agreement Form (*Notarized*)
Payment Bond (*Notarized*)
Performance Bond (*Notarized*)
Contractor's Guarantee
Insurance Endorsements
Contractor's Certificate Regarding Drug-Free Workplace
Contractor's Certificate Regarding Tobacco & Alcoholic Beverage Use
Recycled Content Certification
Asbestos-Free Materials Certificate (*Notarized*)
Lead Base Paint Requirements (*Notarized*)
Project Schedule
All Addenda as Issued
All Change Orders and/or Partial Change Orders

All of the Contract Documents are intended to be complementary. Terms used in this Agreement are as used herein or in the General Conditions. Work required by one of the Contract Documents and not by others shall be done as if required by all. In case of a conflict between this Agreement and any other of the Contract Documents, the terms of this Agreement shall prevail.

ARTICLE 9 - PREVAILING WAGES: Wage rates for this Project shall be in accordance with the general prevailing rate of holiday and overtime work in the locality in which the work is to be performed for each craft, classification, or type of work needed to execute the contract as determined by the Director of the Department of Industrial Relations ("DIR"). Copies of schedules of rates so determined by the Director of the DIR are available from the DIR.

The following are hereby referenced and made a part of this Agreement and the CONTRACTOR agrees to the provisions contained therein.

1. Chapter 1 of Part 7 of Division 2 of the Labor Code (Sections 1720 et seq.);
2. California Code of Regulations, Title 8, Chapter 8, Subchapters 3 & 4 (Sections 16000 et seq.); and

ARTICLE 10 - RECORD AUDIT: In accordance with Government Code Section 8546.7, records of both the DISTRICT and the CONTRACTOR shall be subject to examination and audit by the Auditor General for a period of three years after final payment. Separate and apart from the foregoing, the CONTRACTOR shall keep all of its, and require by contract that each of its subcontractors, sub-subcontractors, and suppliers keep all of their, Project and Project-related records, for a period of four years from the Project's completion, and the DISTRICT has the right to copy, review, inspect, and audit all such records at DISTRICT's cost and expense upon 48 hours' notice. Upon receipt of such notice, the CONTRACTOR shall make said records available as required herein.

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ARTICLE 11 - CONTRACTOR'S LICENSE AND REGISTRATION: The CONTRACTOR must possess throughout the PROJECT a **Class C or C-16**, and keep in good standing at all times during the performance of this Agreement, all required licenses and certifications. In addition, the CONTRACTOR shall comply with the registration requirements set forth in Labor Code Section 1725.5.

ARTICLE 12 – PROJECT MANAGER STATUS: DISTRICT staff or a designated consultant will serve as Project Manager. The Project Manager will assist the DISTRICT with the administration of the Agreement, in accordance with the terms of those General Conditions and the Construction Management Agreement, if any, between the DISTRICT and the Project Manager. The Project Manager has been appointed as the DISTRICT's agent with the power to carry out the Project Manager's duties and activities on behalf of the DISTRICT. The Project Manager has no payment obligation under this Agreement and cannot authorize any changes to the Agreement, the Work, or the Project.

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties, on the day and year first above written.

San Bernardino Community College District

CONTRACTOR:

By: _____

Typed or Printed Name

Title

By: _____

Type or Printed Name

Dated: _____

Title (Authorized Officers or Agents)

(CORPORATE SEAL)

SECTION 00 50 01 – PAYMENT BOND (CALIFORNIA PUBLIC WORKS)

Required Action By Contractor – Posting of the Payment Bond:

Contractor shall post at the jobsite a complete copy of the actual payment bond issued. The copy of the payment bond shall be posted outside, but protected from the elements, so that all the information contained in the payment bond issued shall be legible and available to all those persons who the law permits to make a claim against said bond.

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, San Bernardino Community College District (sometimes referred to hereinafter as “Obligee”) has awarded to _____ (hereinafter designated as the “CONTRACTOR”), an agreement for the work described as follows: _____ (hereinafter referred to as the “Public Work”); and

WHEREAS, said CONTRACTOR is required to furnish a bond in connection with said Contract, and pursuant to, without limitation, California Civil Code section 9550, and/or other applicable laws;

NOW, THEREFORE, We, _____, the undersigned CONTRACTOR, as Principal; and _____, a corporation organized and existing under the laws of the State of, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto San Bernardino Community College District and to any and all persons, companies, or corporations entitled by law to file stop notices under California Civil Code section 9100, or any person, company, or corporation entitled to make a claim on this bond, in the sum of _____ Dollars (\$ _____), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which payment will and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, its heirs, executors, administrators, successors, or assigns, or subcontractor, shall fail to pay any person or persons named in Civil Code section 9100; or fail to pay for any materials, provisions, or other supplies, used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code, with respect to work or labor thereon of any kind; or shall fail to deduct, withhold, and pay over to the Employment Development Department, any amounts required to be deducted, withheld, and paid over by Unemployment Insurance Code section 13020 with respect to work and labor thereon of any kind, then said Surety will pay for the same, in an amount not exceeding the amount herein above set forth, and in the event suit is brought upon this bond, also will pay such reasonable attorneys’ fees as shall be fixed by the court, awarded and taxed as provided in California Civil Code sections 9550 et. seq., and/or other applicable laws.

This bond shall inure to the benefit of any person named in Civil Code section 9100 giving such person or his/her assigns a right of action in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, or specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described; or pertaining or relating to the furnishing of labor, materials, or equipment therefore; nor by any change or modification of any terms of payment or extension of time for payment pertaining or relating to any scheme or work of improvement herein above described; nor by any rescission or attempted rescission of the contract, agreement or bond; nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or

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under the bond; nor by any fraud practiced by any person other than the claimant seeking to recover on the bond; and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given; and under no circumstances shall the Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the DISTRICT and the CONTRACTOR or on the part of any obligee named in such bond; that the sole condition of recovery shall be that the claimant is a person described in California Civil Code sections 8400 and 8402, and who has not been paid the full amount of his or her claim; and that the Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

PRINCIPAL/CONTRACTOR:

By: _____

SURETY:

By: _____

Attorney-in-Fact

IMPORTANT: THIS IS A REQUIRED FORM AND MAY NOT BE ALTERED OR CHANGED

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code section 105, and if the work or Project is financed, in whole or in part, with federal, grant or loan funds, Surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative for
service for service of process in California)

Telephone: _____

Telephone: _____

STATE OF CALIFORNIA)

) ss.

COUNTY OF _____)

On this _____ day of _____, in the year _____, before me, _____, a Notary Public in and for said State, personally appeared _____, known to me to be the person whose name is subscribed within the instrument as the Attorney-in-Fact of the _____ (Surety) and acknowledged to me that he subscribed the name of the _____ (Surety) thereto and his own name as Attorney-in-Fact.

Notary Public in and for said State

(SEAL)

Commission expires: _____

NOTE: A copy of the power-of-attorney to local representatives of the bonding company must be attached hereto.

END OF SECTION

SECTION 00 50 02 – PERFORMANCE BOND (CALIFORNIA PUBLIC WORKS)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, San Bernardino Community College District (sometimes referred to hereinafter as “Obligee”) has awarded to _____ (hereinafter designated as the “CONTRACTOR”), an agreement for the **Fire Alarm - Planetarium & Liberal Arts Upgrade RFP # 01-1617-01**

Project located at 701 South Mount Vernon, San Bernardino, CA 92410 (“Contract”); and

WHEREAS, the terms, conditions, covenants, provisions and obligations to be performed by the CONTRACTOR are more particularly set forth in that Contract, which is incorporated in full herein by this reference; and

WHEREAS, the CONTRACTOR is required by said Contract to competently, completely and promptly perform all of the terms, conditions, provisions, covenants, and obligations thereof and to provide a bond guaranteeing the competent, complete and prompt performance thereof.

NOW, THEREFORE, we, _____, the undersigned CONTRACTOR, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto San Bernardino Community College District in the sum of _____ Dollars (\$ _____), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the CONTRACTOR, his or her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all of the terms, conditions, provisions, covenants, and obligations in said Contract, and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all guarantees of all materials and workmanship; and indemnify, defend and save harmless the Obligee, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

For value received, the Surety hereby stipulates and agrees that no change, extension of time, alteration, addition, or deletion, to the terms, conditions, provisions, covenants, and obligations of the Contract, or to the work to be performed thereunder, or the Specifications accompanying same, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, and deletion, to the terms, conditions, provisions, covenants, and obligations of said Contract, or to the Work, or to the Specifications.

No final settlement between the Obligee and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

CONTRACTOR and Surety agree that if the Obligee is required to engage the services of an attorney in connection with enforcement of the bond, CONTRACTOR and Surety shall pay Obligee’s reasonable attorneys’ fees incurred, with or without suit, in addition to the above sum.

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In the event suit is brought upon this bond by the DISTRICT and judgment is recovered, the Surety shall pay all costs incurred by the DISTRICT in such suit, including reasonable attorneys' fees to be fixed by the Court regardless of whether such fees and costs exceed the penal sum of this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

PRINCIPAL/CONTRACTOR:

By: _____

SURETY:

By: _____

Attorney-in-Fact

The rate of premium on this bond is _____ per thousand.

The total amount of premium charged: \$ _____ (This must be filled in by a corporate surety).

SECTION 00 50 03 – CONTRACTOR’S GUARANTEE

We hereby guarantee that all the services we, and/or our subcontractors, suppliers, materialmen, laborers, and the like, will perform, and all the work, labor, materials, equipment, supplies, apparatus, products, and the like, that we will furnish to and/or install in the Project will be done in accordance with the Contract Documents, including without limitation, the drawings and specifications, and that the services performed, and all the work, labor, materials, equipment, supplies, apparatus, products, and the like, that we will furnish to and/or install in the Project will fulfill the requirements included in the bid documents. The undersigned agrees to repair or replace any or all such work, materials, equipment, supplies, apparatus, and the like, together with any other adjacent work, which may be displaced in connection with such replacement, that may prove to be defective in workmanship or material within a period of one (1) years from the date of the Notice of Completion of the above-mentioned structure by San Bernardino Community College District, ordinary wear and tear and unusual abuse or neglect excepted.

In the event the undersigned fails to comply with the above-mentioned conditions within a reasonable period of time, as determined by the DISTRICT, but not later than ten (10) days after being notified in writing by the DISTRICT, the undersigned authorizes the DISTRICT to proceed to have said defects repaired and made good at the expense of the undersigned and/or its performance bond surety, who will pay the costs and charges therefore upon demand.

The time period set forth herein shall not diminish, impair, modify, alter, change or replace any obligations of the CONTRACTOR and its sureties required elsewhere in the Contract Documents and/or as stated under applicable law.

Countersigned

(Proper Name)

(Proper Name)

By: _____

By: _____

(Signature of Subcontract or CONTRACTOR)

(Signature of General Contractor if for Subcontractor)

Representatives to be contacted for service:

Name: _____

Address: _____

Phone Number: _____

END OF SECTION

**SECTION 00 50 04 – CONTRACTOR’S CERTIFICATE REGARDING DRUG-FREE
WORKPLACE**

This Drug-Free Workplace Certification form is required from all successful bidders pursuant to the requirements mandated by Government Code sections 8350 et. seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any State agency must certify that it will provide a drug-free workplace by performing certain specified acts. In addition, the Act provides that each contract or grant awarded by a State agency may be subject to suspension of payments or termination of the contract or grant, and the CONTRACTOR or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

Pursuant to Government Code section 8355, every person or organization awarded a contract or grant from a State agency shall certify that it will provide a drug-free workplace by doing all of the following:

- a) Publishing a statement, notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person’s or organization’s workplace, and specifying actions which will be taken against employees for violations of the prohibition;
- b) Establishing a drug-free awareness program to inform employees about all of the following:
 - 1) The dangers of drug abuse in the workplace;
 - 2) The person’s or organization’s policy of maintaining a drug-free workplace;
 - 3) The availability of drug counseling, rehabilitation and employee-assistance programs;
 - 4) The penalties that may be imposed upon employees for drug abuse violations;
- c) Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required by subdivision (a) and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will (a) publish a statement notifying employees concerning the prohibition of controlled substance at the workplace, (b) establish a drug-free awareness program, and (c) require each employee engaged in the performance of the contract be given a copy of the statement required by section 8355(a) and require such employee agree to abide by the terms of that statement.

I also understand that if the DISTRICT determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of sections 8350 et. seq.

I acknowledge that I am aware of the provisions of Government Code sections 8350 et. seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

DATE: _____

CONTRACTOR

By: _____
SIGNATURE

CONTRACTORS CERTIFICATE REGARDING DRUG FREE
WORK PLACE
00 50 04 - 1

**SECTION 00 50 05 – CONTRACTOR’S CERTIFICATE REGARDING TOBACCO &
ALCOHOLIC BEVERAGES**

The CONTRACTOR agrees that it will abide by and implement the DISTRICT’S Tobacco & Alcoholic Beverage-Free Campus Policy, which prohibits the use of alcoholic beverages and tobacco products, at any time, on and/or in DISTRICT-owned or leased buildings, on DISTRICT property, and in DISTRICT vehicles.

The CONTRACTOR shall procure signs stating “**TOBACCO & ALCOHOLIC BEVERAGE USE IS PROHIBITED**” and shall ensure that these signs are prominently displayed in all entrances to school property at all times.

DATE: _____

CONTRACTOR

By: _____
Signature

END OF SECTION

SECTION 00 50 06 – RECYCLED CONTENT CERTIFICATION

The undersigned declares that he or she is the person who executed the bid for the **Fire Alarm - Planetarium & Liberal Arts Upgrade RFP # 01-1617-01** (hereinafter referred to as the “Project”), and submitted it to the San Bernardino Community College District (hereinafter referred to as the “Owner”) on behalf of _____ (hereinafter referred to as the “Contractor”).

Pursuant to Public Contract Code Section 12205, all contractors are required to certify in writing under penalty of perjury the minimum (if not exact) percentage of recycled content in materials, goods, or supplies offered or products used in the performance of their contract, regardless of whether the product meets the required recycled product percentage as defined in Sections 12161 and 12200. The recycled content shall include both post-consumer material and secondary material as defined in Public Contract Code Sections 12200. The contractor may certify that the product contains zero recycled content. For purposes of this Certification, the definitions found in Public Contract Code Sections 12200 shall apply.

I declare under penalty of perjury under the laws of the State of California that the following percentages of Post-consumer Material and Secondary Material is in the materials, goods or supplies offered for, or products used in, the performance of the Contract for the Project:

_____ % **Post Consumer Material** _____ % **Secondary Material**

Executed on this _____ day of _____, 20__

at _____

Name of Contractor (Print or Type)

By: _____
Signature

Print Name

Title

Subscribed and sworn before me this _____ day of _____, 20__

Notary Public in and for the State of California

My Commission Expires: _____

END OF SECTION

SECTION 00 50 07 – ASBESTOS-FREE MATERIALS CERTIFICATION

The undersigned declares that he or she is the person who executed the bid for the **Fire Alarm - Planetarium & Liberal Arts Upgrade RFP # 01-1617-01**, (hereinafter referred to as the “Project”), and submitted it to the San Bernardino Community College District (hereinafter referred to as the “Owner”) on behalf of _____ (hereinafter referred to as the “Contractor”).

To the best of my knowledge, information and belief, in completing the Contractor’s Work (Bid Category Number(s) _____) for the Project, no material furnished, installed or incorporated into the Project will contain, or in itself be composed of, any materials listed by the federal or state EPA or federal or state health agencies as a hazardous material.

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

Executed on this _____ day of _____, 20__

at _____

Name of Contractor (Print or Type)

By: _____
Signature

Print Name

Title

Subscribed and sworn before me this _____ day of _____, 20__

Notary Public in and for the State of California

My Commission Expires: _____

END OF SECTION

SECTION 00 50 08 – LEAD BASED PAINT REQUIREMENTS

In recent years, lead-based paint and other materials have come to the forefront of the regulatory process. Regulatory agencies such as the California Occupational Safety and Health Administration (Cal OSHA), Environmental Protection Agency (EPA), California Department of Health Services (DHS), California Department of Education (CDE), and the Consumer Product Safety Commission (CPSC) have all regulated, in some manner, lead-containing paint and lead products.

Because the Contractor and its employees will be providing services for the San Bernardino Community College District (“Owner”), and because the Contractor’s work may disturb lead containing building materials, **CONTRACTOR IS HEREBY NOTIFIED** of the potential presence of lead containing materials located within certain buildings utilized by the Owner. Lead was used extensively in paint because it rendered the paint more durable. All school buildings built prior to 1993 are presumed to contain some lead-based paint until sampling proves otherwise.

Although the regulatory process is not yet complete, there are several regulations currently in place that affect school districts. The CDE mandates that school districts utilize DHS lead-certified personnel when a lead-based hazard is identified. Examples of lead-certified personnel include: project designers, inspectors and abatement workers. The California Education Code also prohibits the use of lead-containing paint, lead plumbing and solders, or other potential sources of lead contamination in the construction of any new school facility or in the modernization or renovation of any existing school facility.

FURTHERMORE, SINCE IT IS ASSUMED BY THE OWNER THAT ALL PAINTED SURFACES (INTERIOR AS WELL AS EXTERIOR) WITHIN THE DISTRICT CONTAIN SOME LEVEL OF LEAD, IT IS IMPERATIVE THAT THE CONTRACTOR, ITS WORKERS AND SUBCONTRACTORS FULLY AND ADEQUATELY COMPLY WITH ALL APPLICABLE LAWS, RULES AND REGULATIONS GOVERNING LEAD-BASED MATERIALS (INCLUDING TITLE 8, CALIFORNIA CODE OF REGULATIONS, SECTION 1532.1).

If failure to comply with these laws, rules and regulations results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify and hold harmless the Owner, pursuant to the indemnification provisions of the Contract Documents, for all damages and other claims arising there from. If lead disturbance is anticipated in your scope of work, only persons with appropriate accreditation, registrations, licenses and training shall conduct this work. Please note that, unless otherwise specifically required in the contract documents, the Owner will require full lead abatement by licensed abatement contractors only if required by Cal-OSHA or any other state or federal agency with jurisdiction to impose such a requirement.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the District.

The Owner shall require the Contractor to provide any sample results prior to beginning work, during the work, and after the completion of each job. Along with these records, the Owner will request to examine, prior to the commencement of work, the lead training records of each employee of the contractor.

Any and all work that may result in the disturbance of lead containing building materials must be coordinated through the Owner’s Maintenance & Operations Department. A signed copy of this correspondence must be on file prior to beginning work, along with all current insurance certificates.

March 2018

THE UNDERSIGNED HEREBY ACKNOWLEDGES, UNDER PENALTY OF PERJURY, THAT HE OR SHE HAS RECEIVED NOTIFICATION OF POTENTIAL LEAD BASED MATERIALS ON THE OWNER'S PROPERTY, AS WELL AS THE EXISTENCE OF APPLICABLE LAWS, RULES AND REGULATIONS GOVERNING WORK WITH, AND DISPOSAL OF, SUCH MATERIALS WITH WHICH IT MUST COMPLY.

THE UNDERSIGNED ALSO WARRANTS THAT HE OR SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF AND BIND THE CONTRACTOR. THE OWNER MAY REQUIRE PROOF OF SUCH AUTHORITY.

Contractor's Name

Street Address

Telephone Number

License Number

Typed or Printed Name of Signatory

Title

Signature

REM of Company (If Applicable)

Subscribed and sworn before me

This ____ day of _____ 20

Notary Public in and for the State of California

My Commission Expires: _____

(SEAL)

San Bernardino Community College District
Fire Alarm - Planetarium & Liberal Arts Upgrade
RFP # 01-1617-01

March 2018

END OF SECTION

EXHIBIT M

EXHIBIT M

San Bernardino Community College District **2017-2018**

June 2017

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



In Service Days



Instruction Begins



Holidays



Semester Grades Due



Flex Days



Semester Ends



CHC/SBVC
Commencements



Final Exams



Classes Not In Session-
All Offices Open

This side is for quick reference only.

July 2017

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November 2017

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

March 2018

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August 2017

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

December 2017

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April 2018

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

September 2017

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

January 2018

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

May 2018

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

October 2017

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February 2018

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

June 2018

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

San Bernardino Community College District

2017-2018 Academic Year

Fall Semester 2017:

Flex Day (no classes in session)	August 10
Faculty In-Service Day	August 11
Instruction Begins.....	August 14
Labor Day	September 4
Fall Census Day	September 5
Flex Day (no classes in session)	October 3
Veterans Day	November 10
Thanksgiving Recess.....	November 23-25
Final Exams/Saturday Classes	December 9
Final Exams	December 11-15
Fall Semester Ends	December 15
Fall Semester Grades Due	December 22
Campus Closed	December 25-January 1

Spring Semester 2018:

Flex Days (no classes in session).....	January 11
Faculty In-Service Day.....	January 12
Martin Luther King Day	January 15
Instruction Begins.....	January 16
Spring Census Day	February 5
Lincoln's Birthday	February 16
Washington's Birthday	February 19
Spring Recess	March 12-17
Flex Day (no classes in session)	April 10
Final Exams	May 18-24
Final Exams/Saturday Classes	May 19
Spring Semester Ends.....	May 24
CHC Campus Graduation	May 25
SBVC Campus Graduation.....	May 25
Faculty In-Service Day.....	May 25
Memorial Day	May 28
Spring Semester Grades Due.....	May 31

Flex Days 4 days of Required Flex to be completed by contract faculty

2017-2018 Census Days

Fall Census Day - September 5
 Spring Census Day - February 5

San Bernardino Community College District **2018-2019**

June 2018

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



In Service Days



Instruction Begins



Holidays



Semester Grades Due



Flex Days



Semester Ends



**CHC/SBVC
Commencements**



Final Exams



**Classes Not In Session-
All Offices Open**

This side is for quick reference only.

July 2018

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November 2018

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

March 2019

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August 2018

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

December 2018

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April 2019

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

September 2018

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

January 2019

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

May 2019

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

October 2018

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February 2019

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

June 2019

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

San Bernardino Community College District 2018-2019 Academic Year

Fall Semester 2018:

Flex Day (no classes in session)	August 9
Faculty In-Service Day	August 10
Instruction Begins.....	August 13
Labor Day	September 3
Fall Census Day	September 4
Flex Day (no classes in session)	October 2
Veterans Day	November 12
Thanksgiving Recess.....	November 22-24
Final Exams/Saturday Classes	December 8
Final Exams	December 10-14
Fall Semester Ends	December 14
Fall Semester Grades Due	December 21
Campus Closed	December 25-January 1

Spring Semester 2019:

Flex Day (no classes in session).....	January 10
Faculty In-Service Day.....	January 11
Instruction Begins.....	January 14
Martin Luther King Day	January 21
Spring Census Day	February 4
Lincoln's Birthday	February 15
Washington's Birthday	February 18
Spring Recess	March 11-16
Flex Day (no classes in session)	April 9
Final Exams	May 17-23
Final Exams/Saturday Classes	May 18
Spring Semester Ends.....	May 23
CHC & SBVC Campus Graduation	May 24
Faculty In-Service Day.....	May 24
Memorial Day	May 27
Spring Semester Grades Due.....	May 30

Short Term Courses Grades due 7 calendar days after last day of class

Flex Days 4 days of Required Flex to be completed by contract faculty

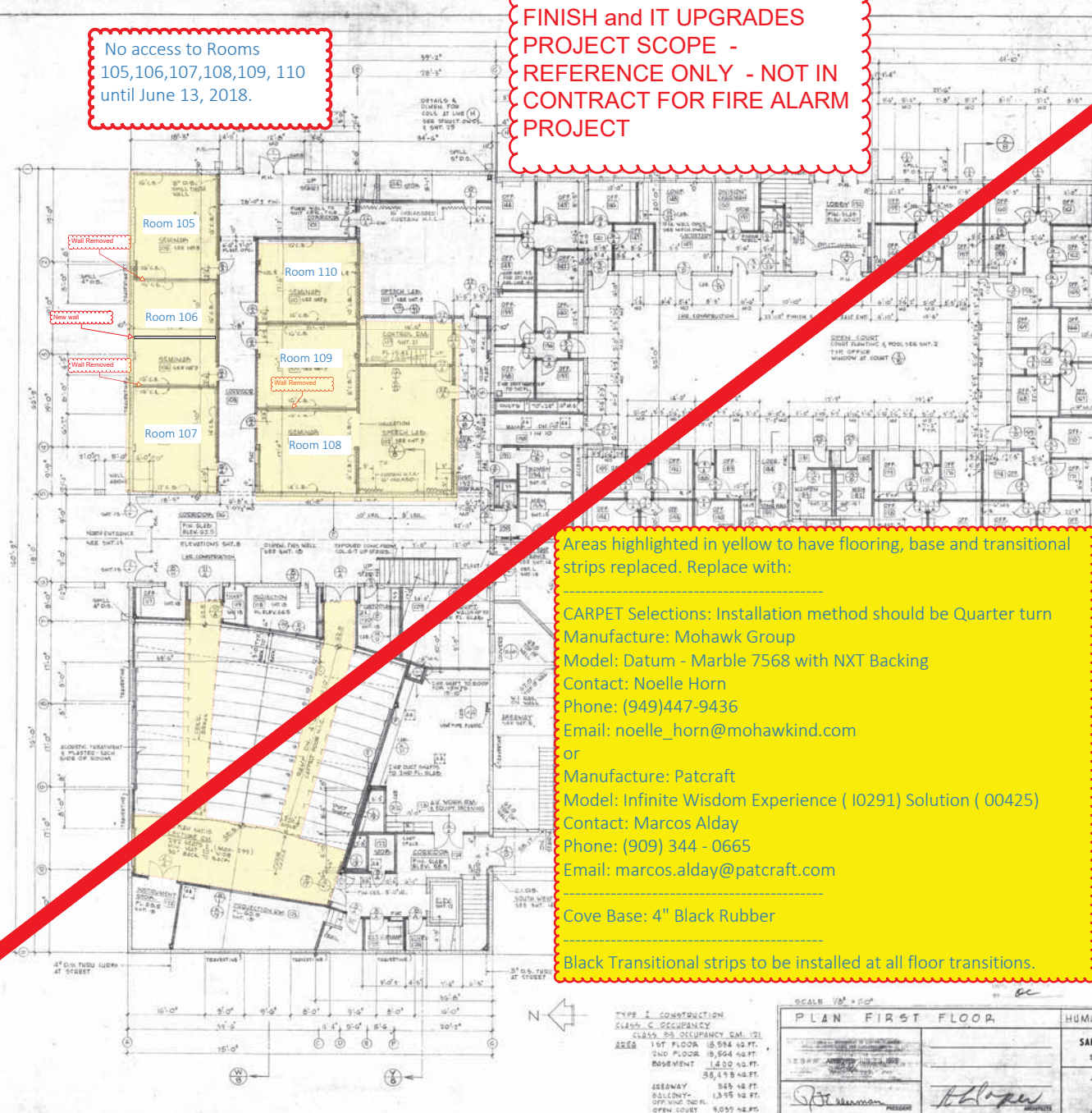
2018-2019 Census Days

Fall Census Day - September 4
Spring Census Day - February 4

EXHIBIT N

No access to Rooms
105,106,107,108,109, 110
until June 13, 2018.

**EXHIBIT N - LIBERAL ARTS
FINISH and IT UPGRADES
PROJECT SCOPE -
REFERENCE ONLY - NOT IN
CONTRACT FOR FIRE ALARM
PROJECT**



Areas highlighted in yellow to have flooring, base and transitional strips replaced. Replace with:

 CARPET Selections: Installation method should be Quarter turn
 Manufacture: Mohawk Group
 Model: Datum - Marble 7568 with NXT Backing
 Contact: Noelle Horn
 Phone: (949)447-9436
 Email: noelle_horn@mohawkind.com
 or
 Manufacture: Patcraft
 Model: Infinite Wisdom Experience (10291) Solution (00425)
 Contact: Marcos Alday
 Phone: (909) 344 - 0665
 Email: marcos.alday@patcraft.com

 Cove Base: 4" Black Rubber

 Black Transitional strips to be installed at all floor transitions.

- 1) Contractor shall demo and dispose of existing flooring and base in locations identified to receive new carpet and base.
- 2) Contractor shall verify area square footage/room dimensions before ordering material or bidding.
- 3) Contractor shall install flooring per flooring manufacturers recommendations so that manufacture warranty is valid.
- 4) Contractor shall include possible floor prep in overall cost along with moisture testing.
- 5) Contractor means and methods to remove carpet without damaging concrete slab. Slab repairs should be corrected by the contractor and shall be included in the overall cost.
- 6) Contractor shall move any furniture/boxes within rooms in order to complete scope. Owner will pack belongings in boxes which are inside desks, book shelves and cabinets. If furniture needs to be disassembled to perform work, the furniture must not be damaged and must be reassembled by the contractor in its original condition.
- 7) Contractor shall final clean areas affected by their work.
- 8) Contractor shall not damage walls when removing base. Any wall damage will need to be repaired by the contractor at contractors expense.

TYPE I CONSTRUCTION
CLASS. K OCCUPANCY
CLASS. 20 OCCUPANCY S.M. 101

AREA	1ST FLOOR 18,594 SQ. FT.
	2ND FLOOR 19,564 SQ. FT.
	BASEMENT 14,000 SQ. FT.
	38,158 SQ. FT.
ASENWAY	845 SQ. FT.
BALCONY	13,950 SQ. FT.
OFF. USE AND	
OPEN COURT	9,059 SQ. FT.

SCALE 1/8" = 1'-0"	
PLAN FIRST FLOOR	
HUMAN	
SAN BERNARDINO VALLEY JOINT UNION COLLEGE	
SAN BERNARDINO CALIFORNIA	
JESS J. JONES, A.I.A.	PROJECT ARCHITECT
KEVIN L. JONES, A.I.A.	PROJECT ARCHITECT
J. G. ARMSTRONG	PROJECT ARCHITECT
ASSOCIATED ARCHITECTS	PROJECT ARCHITECTS
1000 N. GARDEN BLVD.	SAN BERNARDINO, CALIF.

SAN BERNARDINO VALLEY JOINT UNION COLLEGE	
SAN BERNARDINO CALIFORNIA	
JESS J. JONES, A.I.A.	PROJECT ARCHITECT
KEVIN L. JONES, A.I.A.	PROJECT ARCHITECT
J. G. ARMSTRONG	PROJECT ARCHITECT
ASSOCIATED ARCHITECTS	PROJECT ARCHITECTS
1000 N. GARDEN BLVD.	SAN BERNARDINO, CALIF.

General Notes

1) Contractor shall demo and dispose of existing flooring and base in locations identified to receive new carpet and base.

2) Contractor shall verify area square footage/room dimensions before ordering material or bidding.

3) Contractor shall install flooring per flooring manufactures recommendations so that manufacture warranty is valid.

4) Contractor shall include possible floor prep in overall cost along with moisture testing.

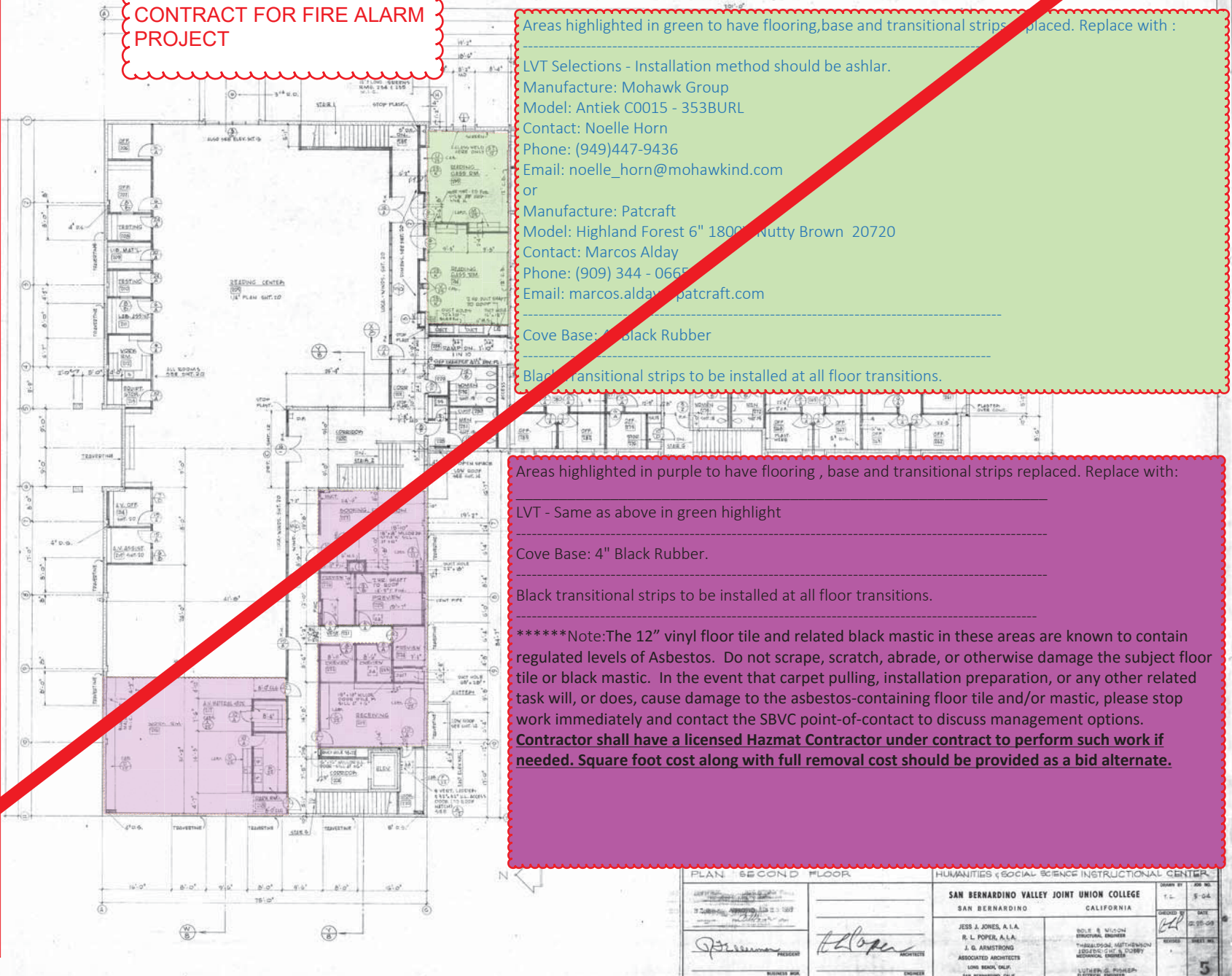
5) Contractor means and methods to remove carpet without damaging concrete slab. Slab repairs should be corrected by the contractor and shall be included in the overall cost.

6) Contractor shall move any furniture/boxes within rooms in order to complete scope. Owner will pack belongings in boxes which are inside desks, book shelves and cabinets. If furniture needs to be disassembled to perform work, the furniture must not be damaged and must be reassembled by the contractor in its original condition.

7) Contractor shall final clean areas affected by their work.

8) Contractor shall not damage walls when removing base. Any wall damage will need to be repaired by the contractor at contractors expense.

**EXHIBIT N - LIBERAL ARTS
FINISH and IT UPGRADES
PROJECT SCOPE -
REFERENCE ONLY - NOT IN
CONTRACT FOR FIRE ALARM
PROJECT**



Areas highlighted in green to have flooring, base and transitional strips replaced. Replace with:

LVT Selections - Installation method should be ashlar.

Manufacture: Mohawk Group
Model: Antiek C0015 - 353BURL

Contact: Noelle Horn
Phone: (949)447-9436
Email: noelle_horn@mohawkind.com
or

Manufacture: Patcraft
Model: Highland Forest 6" 1800 Nutty Brown 20720

Contact: Marcos Alday
Phone: (909) 344 - 0665
Email: marcos.alday@patcraft.com

Cove Base: 4" Black Rubber

Black transitional strips to be installed at all floor transitions.

Areas highlighted in purple to have flooring, base and transitional strips replaced. Replace with:

LVT - Same as above in green highlight

Cove Base: 4" Black Rubber.

Black transitional strips to be installed at all floor transitions.

*****Note: The 12" vinyl floor tile and related black mastic in these areas are known to contain regulated levels of Asbestos. Do not scrape, scratch, abrade, or otherwise damage the subject floor tile or black mastic. In the event that carpet pulling, installation preparation, or any other related task will, or does, cause damage to the asbestos-containing floor tile and/or mastic, please stop work immediately and contact the SBVC point-of-contact to discuss management options.

Contractor shall have a licensed Hazmat Contractor under contract to perform such work if needed. Square foot cost along with full removal cost should be provided as a bid alternate.

PLAN SECOND FLOOR		HUMANITIES (SOCIAL SCIENCE) INSTRUCTIONAL CENTER	
<p>DESIGNED BY JESS A. JONES, A.I.A. R. L. POPER, A.I.A. J. G. ARMSTRONG ASSOCIATED ARCHITECTS</p>	<p>DATE 11.23.10</p>	<p>SAN BERNARDINO VALLEY JOINT UNION COLLEGE SAN BERNARDINO CALIFORNIA</p>	<p>DRAWN BY DATE 12.23.09</p>
<p>PROJECT NO. 1000</p>	<p>DATE 11.23.10</p>	<p>BOB E. MILSON STRUCTURAL ENGINEER</p>	<p>DATE 12.23.09</p>
<p>PROJECT NO. 1000</p>	<p>DATE 11.23.10</p>	<p>THEODORE MATHIAS ELECTRICAL & MECHANICAL ENGINEER</p>	<p>DATE 12.23.09</p>
<p>PROJECT NO. 1000</p>	<p>DATE 11.23.10</p>	<p>LUTHER S. FISHER ELECTRICAL ENGINEER</p>	<p>DATE 12.23.09</p>

1st Floor Ceiling Tile Scope

General Notes

- 1) Contractor to move and protect office and classroom furniture as needed to perform work. Computers which remain in the room will need to be covered with plastic to protect from dust.
- 2) Contractor to final clean area of work and place furniture in original location.
- 3) Contractor shall verify quantities and room dimensions before ordering material or bidding.

No access to Rooms 105,106,107,108,109, 110 until June 13, 2018.

Key Note 1- typical of areas highlighted in yellow

Note: Campus needs full access to these rooms (Credit Union / Lobby) Monday - Friday 7:00 am - 5:00 pm. Any work in these rooms will need to be coordinated 1 week in advance with the Facilities Project Manager.

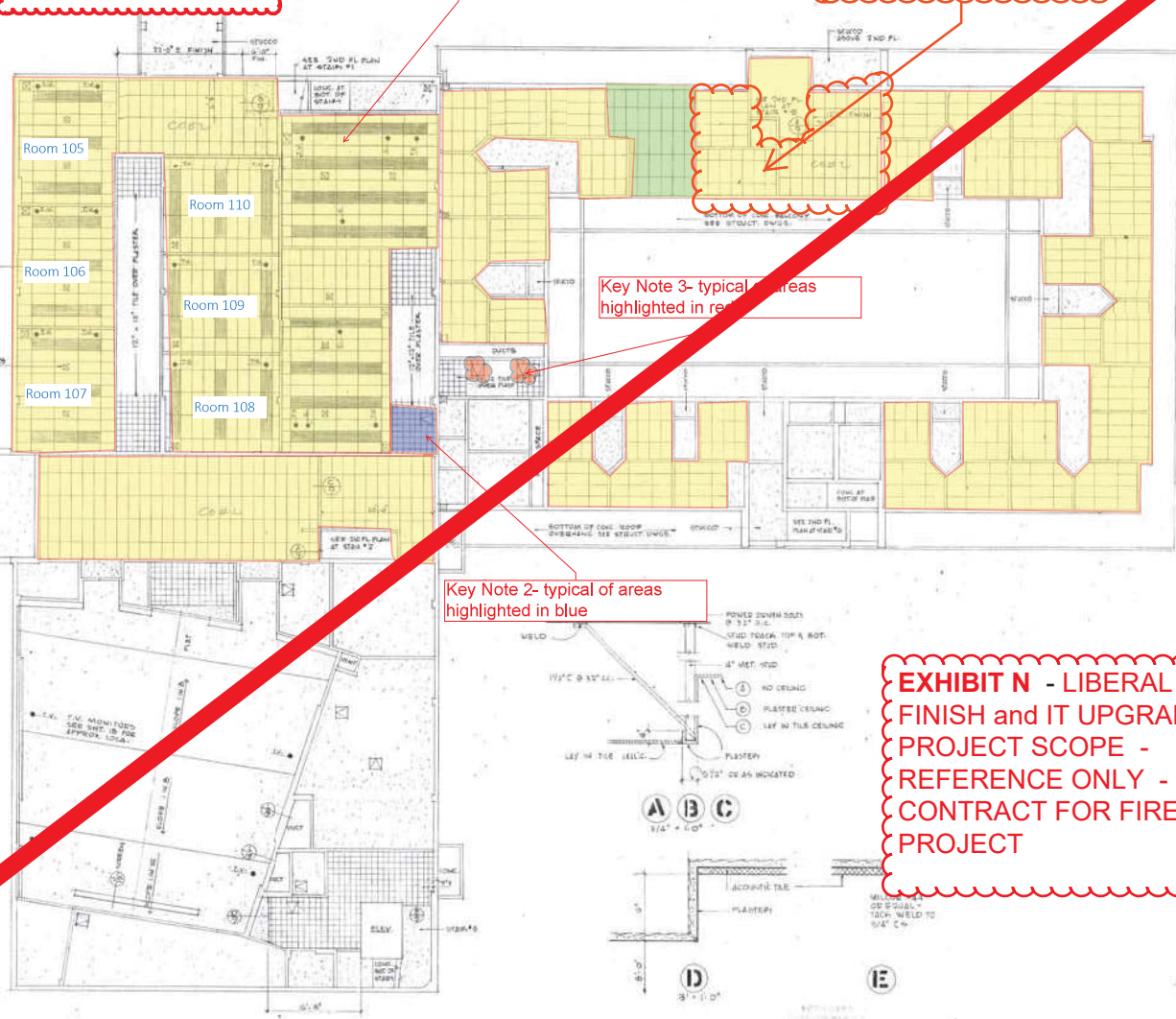
Key Notes

- 1) Areas Highlighted in Yellow - Contractor to "SPRAY APPLY" (1) coat of primer and (1) coat of finish on ceiling T-Bar grid prior to removal of existing acoustical ceiling tiles. When paint is cured, remove and dispose of existing ceiling tiles and replace with new ceiling tiles. New Ceiling tiles should match tiles used in Room highlighted in green. Paint/primer shall be Vista,Dun Edwards, or Sherman Williams and shall be Eggshell. Finish coat shall match ceiling tile color as close as possible. Provide sample of acoustical tile and paint prior to ordering and installing. Approval by District Project Manager or Facilities M&O Director required prior to ordering. Provide submittal within 5 days of Notice of Intent to Award.
- 2) Areas highlighted in blue - Replace damaged/missing 12"x12" ceiling tiles. Match existing.
- 3) Areas highlighted in red - Replace access panel trim and surrounding damaged 12"x12" ceiling tiles (typical of 12 ceiling tiles at each access panel). Access panel trim shall be 2" wide and cover ceiling tile edge.

Key Note 3- typical of areas highlighted in red

Key Note 2- typical of areas highlighted in blue

EXHIBIT N - LIBERAL ARTS FINISH and IT UPGRADES PROJECT SCOPE - REFERENCE ONLY - NOT IN CONTRACT FOR FIRE ALARM PROJECT



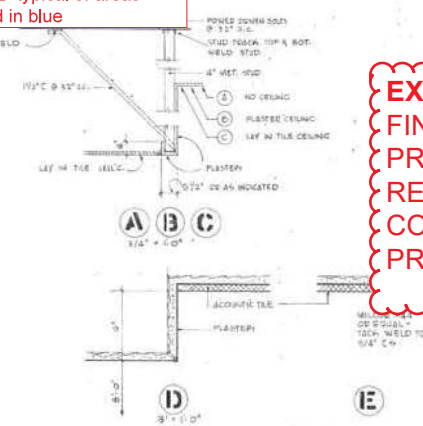
SEE TELE DINGS, AND VERIFY EXACT LOCATION OF THE FOLLOWING TEAM OF THE ELECTRICAL ENGINEER PRIOR TO INSTALLATION:

- VENTILATION EXHAUST SUPPORT
- DESIGNER TV MONITOR SUPPORT

CEILING FINISH

- ALL CEILING IS SUSPENDED.
- FINISHES AT ACCESS DOORS:
- 72" x 48" LAY IN TILE IN 72" x 48" T-BAR GRID SYSTEM
- 72" x 48" TILE OVER PLASTER - W/SHIMMING
- PLASTER - SPEC'D AS NOTED

N



REFLECTED CEILING PLAN - FIRST FLOOR.		HUMANITIES & SOCIAL SCIENCE INSTRUCTIONAL CENTER	
SAN BERNARDINO VALLEY JOINT UNION COLLEGE SAN BERNARDINO CALIFORNIA		ISSUED BY TC	JOB NO. S-44
JESS J. JONES, A.I.A. R. L. POPE, A.I.A. J. D. ARMSTRONG ASSOCIATED ARCHITECTS LONG BEACH, CALIF. SAN BERNARDINO, CALIF.	BOB E. WILSON REGISTERED ARCHITECT PHILIP L. COOPER REGISTERED ARCHITECT & DESIGNER MONTROSE, COLORADO	CREATED BY HJ	DATE 02-20-18
PROJECT MANAGER	ENGINEER	REVISED	SHEET NO. 9

General Notes

- 1) Contractor to move and protect office and classroom furniture/ boxes as needed to perform work. IT equipment will be moved by IT Department but computers which remain in the room will need to be covered with plastic to protect from dust.
- 2) Contractor to final clean area of work and place furniture in original location.
- 3) Contractor shall verify quantities and room dimensions before ordering material or bidding.

Key Note 1- typical of areas highlighted in yellow

Key Note 2- typical of areas highlighted in blue

Key Note 3- typical of areas highlighted in red

Key Notes

1) Areas Highlighted in Yellow - Contractor to "SPRAY APPLY" (1) coat of primer and (1) coat of finish on ceiling T-Bar grid prior to removal of existing acoustical ceiling tiles. When paint is cured, remove and dispose of existing ceiling tiles and replace with new ceiling tiles. New Ceiling tiles should match tiles used in Room highlighted in green (first floor). Paint / primer shall be Vista,Dun Edwards, or Sherman Williams and shall be Eggshell. Finish coat shall match ceiling tile color as close as possible. Provide sample of acoustical tile and paint prior to ordering and installing. Approval by District Project Manager or Facilities M&O Director required prior to ordering. Provide submittal within 5 days of Notice of Intent to Award.

2) Areas highlighted in blue - Replace damaged/missing 12"x12" ceiling tiles. Match existing.

3) Areas highlighted in red - Replace access panel trim and surrounding damaged 12"x12" ceiling tiles. Typical of 12 ceiling tiles at each access panel. Access panel trim shall be 2" wide to cover ceiling tile edge.

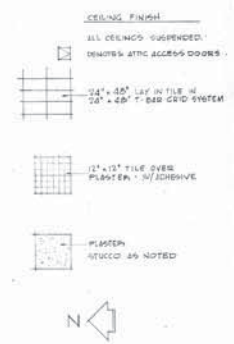
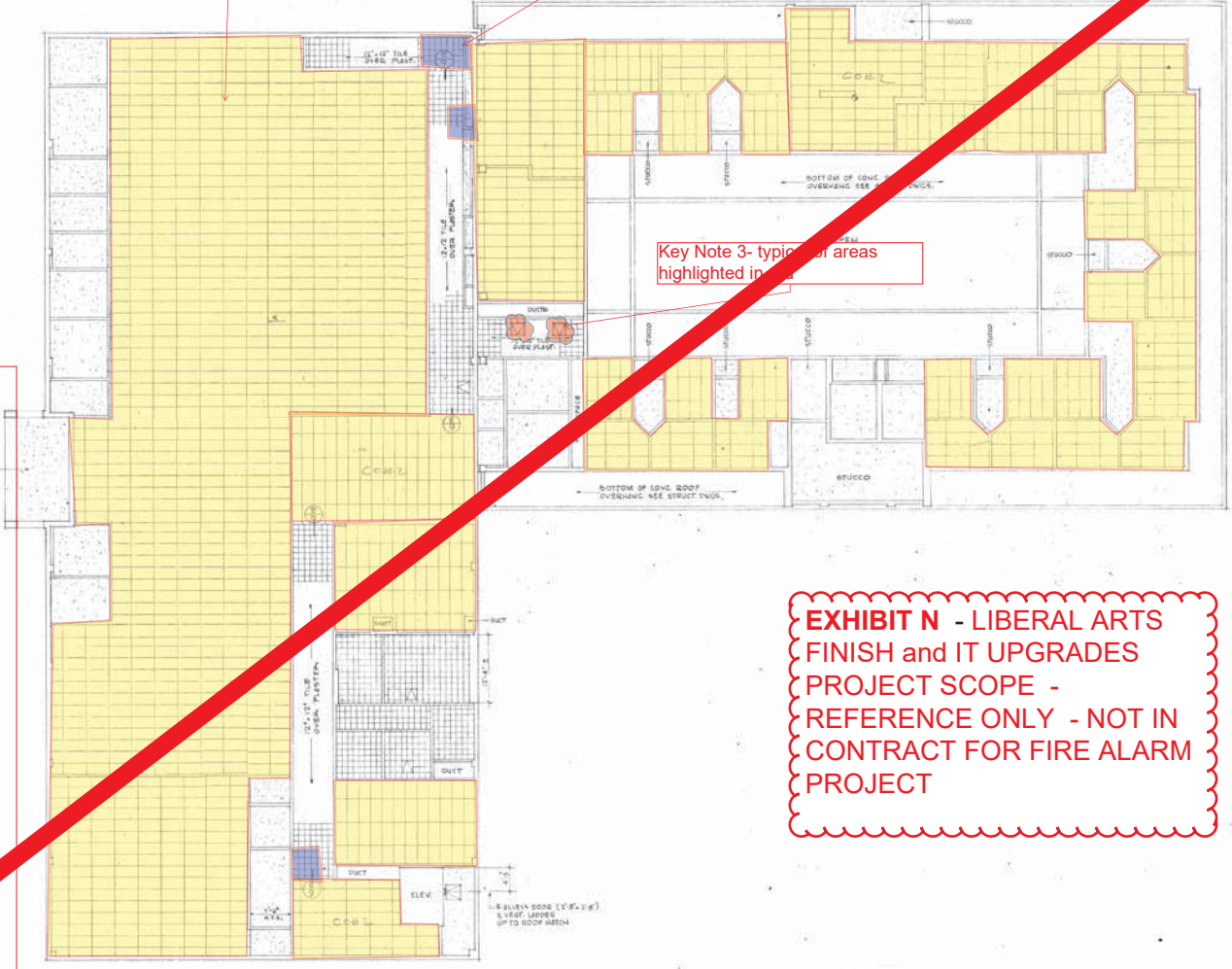
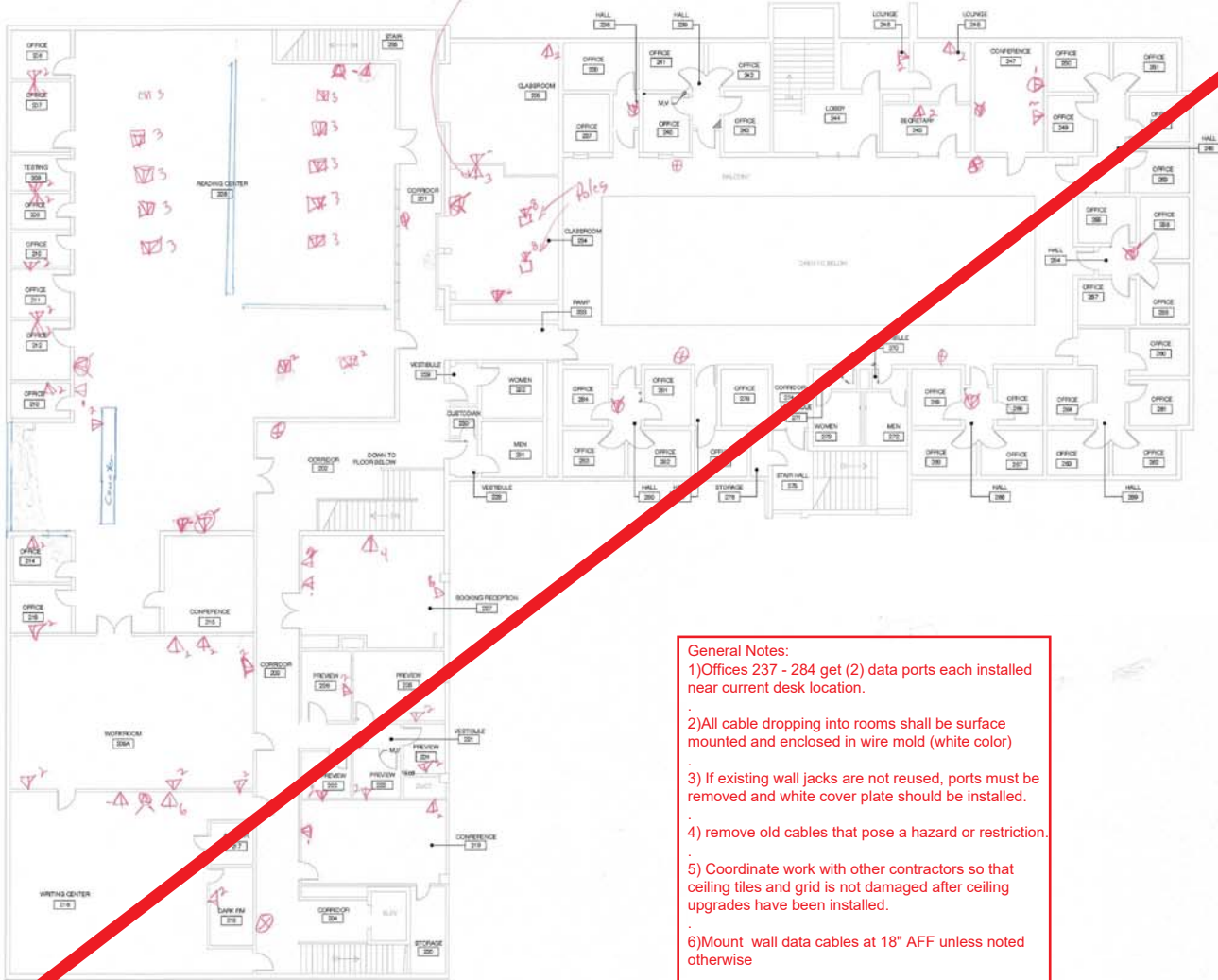


EXHIBIT N - LIBERAL ARTS FINISH and IT UPGRADES PROJECT SCOPE - REFERENCE ONLY - NOT IN CONTRACT FOR FIRE ALARM PROJECT

REVISIONS 1. 05/11/11 2. 05/11/11 3. 05/11/11 4. 05/11/11 5. 05/11/11 6. 05/11/11 7. 05/11/11 8. 05/11/11 9. 05/11/11 10. 05/11/11 11. 05/11/11 12. 05/11/11 13. 05/11/11 14. 05/11/11 15. 05/11/11 16. 05/11/11 17. 05/11/11 18. 05/11/11 19. 05/11/11 20. 05/11/11 21. 05/11/11 22. 05/11/11 23. 05/11/11 24. 05/11/11 25. 05/11/11 26. 05/11/11 27. 05/11/11 28. 05/11/11 29. 05/11/11 30. 05/11/11 31. 05/11/11 32. 05/11/11 33. 05/11/11 34. 05/11/11 35. 05/11/11 36. 05/11/11 37. 05/11/11 38. 05/11/11 39. 05/11/11 40. 05/11/11 41. 05/11/11 42. 05/11/11 43. 05/11/11 44. 05/11/11 45. 05/11/11 46. 05/11/11 47. 05/11/11 48. 05/11/11 49. 05/11/11 50. 05/11/11 51. 05/11/11 52. 05/11/11 53. 05/11/11 54. 05/11/11 55. 05/11/11 56. 05/11/11 57. 05/11/11 58. 05/11/11 59. 05/11/11 60. 05/11/11 61. 05/11/11 62. 05/11/11 63. 05/11/11 64. 05/11/11 65. 05/11/11 66. 05/11/11 67. 05/11/11 68. 05/11/11 69. 05/11/11 70. 05/11/11 71. 05/11/11 72. 05/11/11 73. 05/11/11 74. 05/11/11 75. 05/11/11 76. 05/11/11 77. 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2nd Floor IT Data Cabling and Equipment Upgrade Scope

**EXHIBIT N - LIBERAL ARTS
FINISH and IT UPGRADES
PROJECT SCOPE -
REFERENCE ONLY - NOT
IN CONTRACT FOR FIRE
ALARM PROJECT**



- General Notes:**
- 1) Offices 237 - 284 get (2) data ports each installed near current desk location.
 - 2) All cable dropping into rooms shall be surface mounted and enclosed in wire mold (white color)
 - 3) If existing wall jacks are not reused, ports must be removed and white cover plate should be installed.
 - 4) remove old cables that pose a hazard or restriction.
 - 5) Coordinate work with other contractors so that ceiling tiles and grid is not damaged after ceiling upgrades have been installed.
 - 6) Mount wall data cables at 18" AFF unless noted otherwise
 - 7) All existing CAT 5 cables shall be replaced with "blue colored" CAT 6/6A by AMP (preferred) or approved equal cables. Also use Blue Jacks.

Project Title

San Bernardino Valley College



701 N. Vermont Ave
San Bernardino, CA 92410

Revision Number	Description	Date

Designed _____
 Drawn _____
 Checked _____
 Approved _____

Date _____

Scale _____ Note _____

Sheet Title

Second Floor

Liberal Arts Building

Sheet Number _____

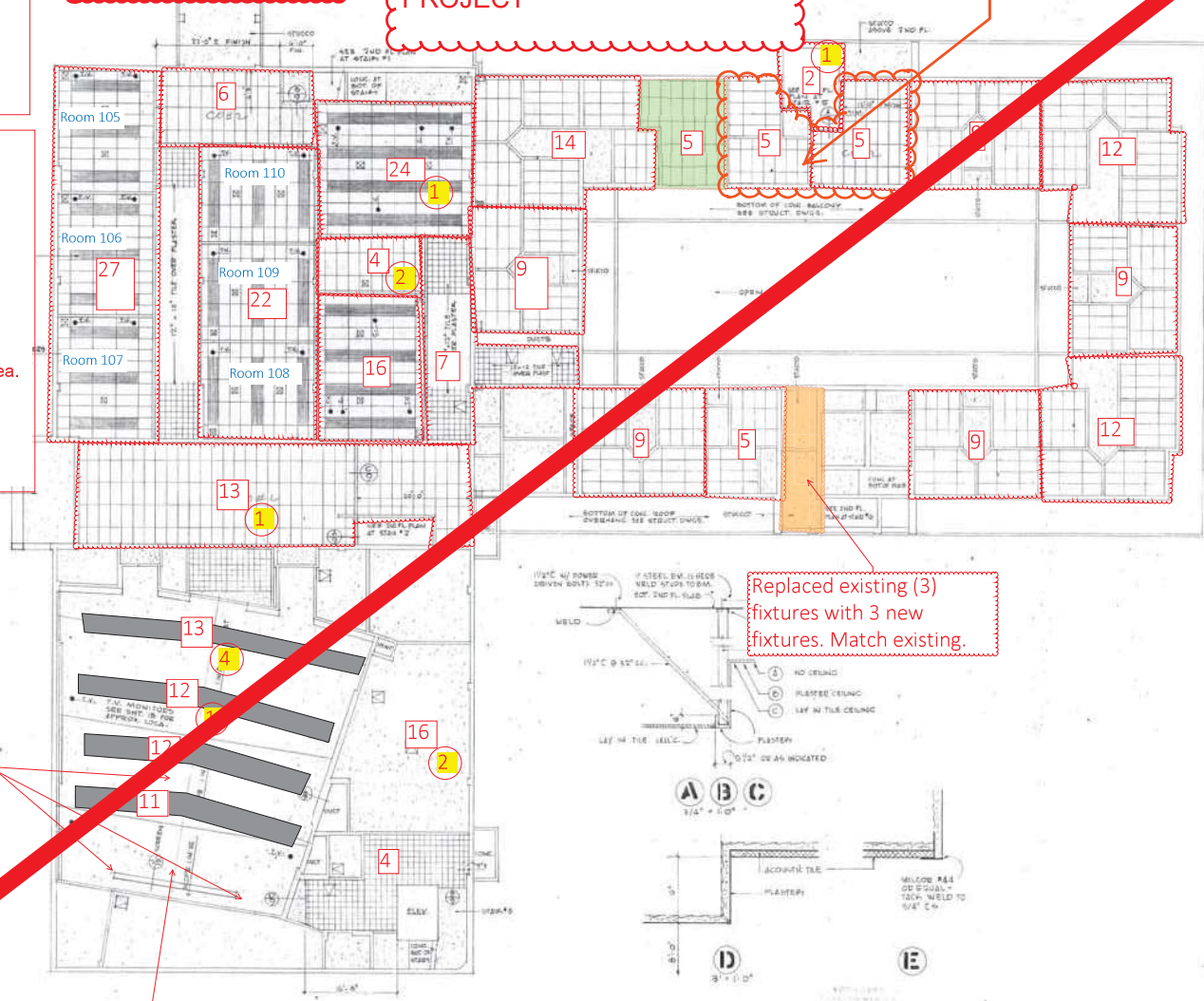
EXHIBIT N - LIBERAL ARTS FINISH and IT UPGRADES PROJECT SCOPE - REFERENCE ONLY - NOT IN CONTRACT FOR FIRE ALARM PROJECT

Note: Campus needs full access to these rooms (Credit Union / Lobby) Monday - Friday 7:00 am - 5:00 pm. Any work in these rooms will need to be coordinated 1 week in advance with the Facilities Project Manager.

No access to Rooms 105,106,107,108,109, 110 until June 13, 2018.

- General Notes**
- 1) Contractor to move and protect office and classroom furniture as needed to perform work. Computers which remain in the room will need to be covered with plastic to protect from dust.
 - 2) Contractor to final clean area of work and place furniture in original location.

- Key Notes Legend**
- # Identifies the number of light fixtures contractor will need to perform the following:
 - 1) Wipe down light fixture and lens
 - 2) Properly dispose of lamps.
 - 3) Install OWNER FURNISHED lamps.
 - Identifies the number of new lenses the contractor will need to install in each area.
 - 1) Dispose of damaged lenses.
 - 2) Contractor to procure and install new lenses. Contractor to match the lenses used in room highlighted in green.

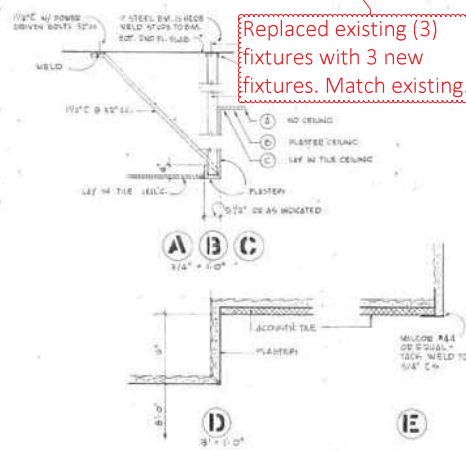


14 stage lights. procure and install LED daylight bulbs.

11 Existing Recessed lights. procure and install LED daylight bulbs.

Replaced existing (3) fixtures with 3 new fixtures. Match existing.

- SEE TELE DINGS, AND VERIFY EXACT LOCATION OF THE FOLLOWING TEAM OF THE ELECTRICAL ENGINEER PRIOR TO INSTALLATION:
 - VENTILATION CASERS SUPPORT
 - DESIGNER TV MONITOR SUPPORT
- CEILING FINISH
 - ALL CEILING'S SUSPENDED.
 - FINISHES AT ACCESS DOORS
- 24" x 24" LAY IN TILE IN 24" x 48" T-BUD GRID SYSTEM
- 24" x 24" TILE OVER PLASTER - W/CRACKS
- PLASTER - STUDIOS AS NOTED



REFLECTED CEILING PLAN - FIRST FLOOR.		HUMANITIES & SOCIAL SCIENCE INSTRUCTIONAL CENTER			
SAN BERNARDINO VALLEY JOINT UNION COLLEGE SAN BERNARDINO CALIFORNIA JESS J. JONES, A.I.A. R. L. POPEK, A.I.A. J. E. ARMSTRONG ASSOCIATED ARCHITECTS LONG BEACH OFFICE SAN BERNARDINO, CALIF.		DRAWN BY T.C.	JOB NO. S-44	CHECKED BY J.H.	DATE 5-20-18
APPROVED: [Signature] PROJECT MANAGER		REVIEWED: [Signature] ELECTRICAL ENGINEER			

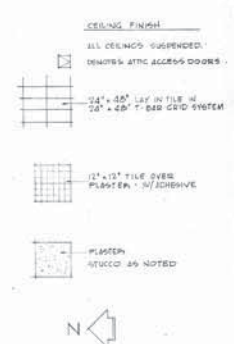
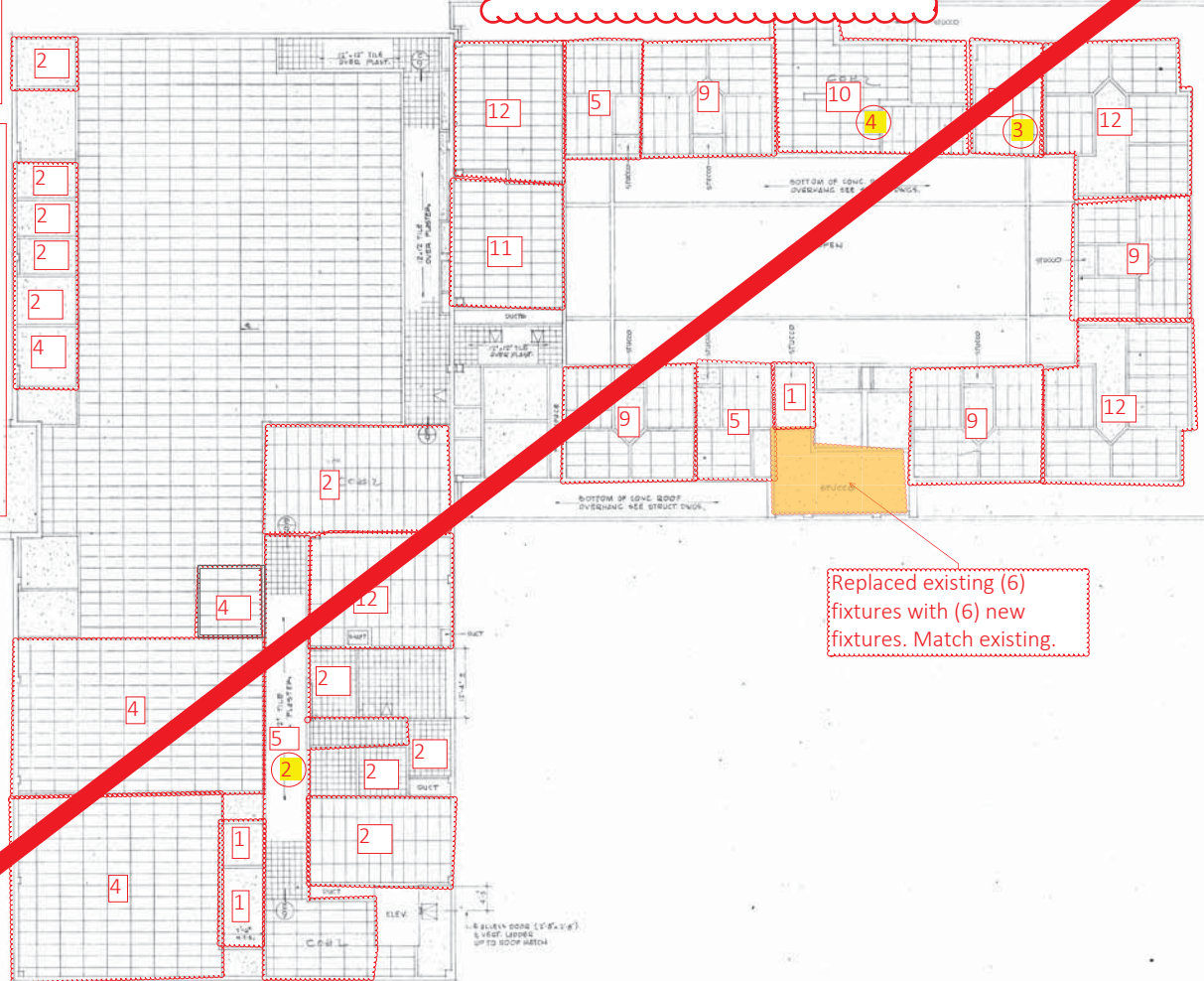
**EXHIBIT N - LIBERAL ARTS
FINISH and IT UPGRADES
PROJECT SCOPE -
REFERENCE ONLY - NOT IN
CONTRACT FOR FIRE ALARM
PROJECT**

General Notes

- 1) Contractor to move and protect office and classroom furniture as needed to perform work. IT equipment will be moved by IT Department but computers which remain in the room will need to be covered with plastic to protect from dust.
- 2) Contractor to final clean area of work and place furniture in original location.

Key Notes Legend

- # Identifies the number of light fixtures contractor will need to perform the following:
- 1) Wipe down light fixture and lens
 - 2) Properly dispose of lamps.
 - 3) Install OWNER FURNISHED lamps.
- # Identifies the number of new lenses the contractor will need to install in each area.
- 1) Dispose of damaged lenses.
 - 2) Contractor to procure and install new lenses. Contractor to match the lenses used in room highlighted in green on the 1st floor.



<p>REVISIONS</p> <p>DATE</p> <p>BY</p> <p>DESCRIPTION</p>		<p>APPROVED</p> <p>DATE</p> <p>BY</p> <p>DESCRIPTION</p>	
<p>3200+ ARCHITECTURAL FIRM</p> <p>ARCHITECTS</p> <p>1000 N. GARDEN ST.</p> <p>LONG BEACH, CALIF. 90801</p>		<p>HUMANITIES & SOCIAL SCIENCE INSTRUCTIONAL CENTER</p> <p>SAN BERNARDINO VALLEY JOINT UNION COLLEGE</p> <p>CALIFORNIA</p> <p>JESS J. JONES, A.I.A. R. L. POPER, A.I.A. J. G. ARMSTRONG ASSOCIATED ARCHITECTS LONG BEACH, CALIF. SAN BERNARDINO, CALIF.</p>	
<p>DESIGNED BY</p> <p>DATE</p> <p>PROJECT NO.</p>		<p>ORDER BY</p> <p>T.C.</p> <p>5-64</p> <p>DATE</p> <p>5-64</p> <p>PROJECT NO.</p> <p>10</p>	

EXHIBIT O

See attachments. File too large to attach to this document.