CITY OF BERKELEY

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECTS

PROJECT MANUAL

1947 Center St. Window Replacement Project

SPECIFICATION NO. 26-11762-C

April, 2026

ADVERTISEMENT DATE: April 27, 2026

PRE-BID CONFERENCE: May 6, 2026

BID OPENING DATE: Thursday, June 11, 2026

1947 CENTER STREET, 4th Floor, BERKELEY, CALIFORNIA 94704 (510) 981-6400

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Document 00 0101

CITY OF BERKELEY

DEPARTMENT OF PUBLIC WORKS

PROJECT MANUAL

1947 Center St. Window Replacement Project

at

1947 Center Street
Berkeley, CA 94704

SPECIFICATION NO. 26-11762-C
April, 2026

Prepared By: Signed by: 321BEE16A277496...
Uriel Gonzalez, Assistant Public Works Engineer

Reviewed By: Signed by: 00C606B976414C9...
Wahid Amiri, Acting City Engineer

ENGINEERING DIVISION
1947 CENTER STREET, 5TH FLOOR
BERKELEY, CALIFORNIA 94704

Project Manager
Uriel Gonzalez, Assistant Public Works Engineer
Phone: (510) 981-6627
Email: UGonzalez@berkeleyca.gov

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Division Section Title

GENERAL REQUIREMENTS

01 1100	Summary of the Work
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings
01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 4500	Testing and Inspection
01 5200	Temporary Facilities
01 5526	Traffic Control
01 5700	Temporary Controls
01 7329	Cut-Patch
01 7413	Project Cleaning
01 7419	Construction Waste Management
01 7700	Contract Closeout
01 7800	Closeout Submittals

TECHNICAL SPECIFICATIONS

01 73 29	Cutting and Patching
02 41 13	Selective Demolition
07 21 00	Thermal Insulation
07 92 00	Joint Sealant
08 31 00	Access Doors and Panels
08 51 13	Aluminum Windows
08 83 00	Mirrors
09 21 16	Gypsum Board Assemblies
09 30 00	Tiling
09 90 00	Painting and Coating
09 96 53	Interior and Exterior Paint
10 14 00	Signage
10 21 13	Toilet Compartments
10 28 00	Commercial Toilet Accessories

APPENDICES

A. BIDDER AND CONTRACTOR CHECKLIST
B. ASBESTOS AND LEAD SURVEY REPORT BY ACUMEN INDUSTRIAL HYGIENE, APRIL 2025
C. PERMIT – CONDITIONAL APPROVAL
D. PERMIT DECLARATIONS FORM
E. PLIMBING FEE SCHEDULE
F. CONSTRUCTION WASTE MANGEMENT FORM (GREEN HALO)
G. CITY OF BERKELEY COMMUNITY WORKFORCE AGREEMENT

END OF DOCUMENT

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10 28 00	Commercial Toilet Accessories
03 01 30	Repairs of Cast-In-Place Concrete

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SCHEDULES

END OF DOCUMENT

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DOCUMENT 00 1113

NOTICE INVITING BIDS

ARTICLE 1 - INVITATION TO BID

1.01 Notice Inviting Bids: City of Berkeley ("City") will receive sealed Bids at City of Berkeley, Purchasing Manager's Office, located at the Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320, until **2:00 PM, Thursday, June 11, 2026** for the following public work:

SPECIFICATION NO. 26-11762-C
CITY OF BERKELEY
1947 Center St. Window Replacement Project
1947 Center Street

1.02 Project Description: Work includes the abatement and removal of steel windows, installation of new windows, repairs to concrete rough openings, and associated accessibility upgrades, including ancillary work in accordance with the terms and conditions of the Contract Documents. Work shall be completed within **154** Calendar Days from the date when Contract Time commences to run.

1.03 Procurement of Bidding Documents:
Bidding Documents contain the full description of the Work. Bidders may obtain Bidding Documents by April 20, 2026 from City of Berkeley's Public Works website under Current Construction Project Bid Opportunities:

https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities

For information pertaining to the Bidding Documents, please contact the Project Manager, Uriel Gonzalez, 1947 Center Street, 5th Floor, Berkeley, CA 94704, by Email at UGonzalez@berkeleyca.gov or by Telephone at (510) 981-6627 or by FAX **(510) 981-6390**.

1.04 Planholders List:

Bidders are responsible for notifying Uriel Gonzalez, via email at UGonzalez@berkeleyca.gov to be included on the Planholders List. Please include the following in the email subject header: "Planholders list for Specification No. 26-11762-C for 1947 Center St. Window Replacement Project". In the body of the email, please state the Name of the Company Representative, Company Name, Address, Telephone Number, Fax Number, and Email Address.

1.05 Instructions: Bidders shall refer to Document 00 2113 (Instructions to Bidders) for required documents and items to be submitted in a sealed envelope for deposit into the Bid Box, located at **City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320** no later than the time and date set forth in Paragraph 1.01 above.

1.06 Non-Mandatory Pre-Bid Site Visit: City **WILL** conduct a **Non-Mandatory** Pre-Bid Conference and Site Visit at 1947 Center Street**.** The location of work is open to the public during normal business or daylight hours. It is recommended that potential bidders visit the site independently to review site conditions prior to bid. City will conduct a Pre-Bid Conference and Site Visit at 1947 Center Street, at 11:00 AM Wednesday, May 6, 2026

1.07 Bid Preparation Cost: Bidders are solely responsible for the cost of preparing their Bids.

1.08 Reservation of Rights: City specifically reserves the right, in its sole discretion, to reject any or

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all Bids, to re-bid, or to waive inconsequential defects in bidding not involving time, price or quality of the work. City may reject any and all Bids and waive any minor irregularities in the Bids.

ARTICLE 2 - LEGAL REQUIREMENTS

2.01 **Required Contractor's License(s):** A California **"B"** contractor's license is required to bid this contract. Joint ventures must secure a joint venture license prior to award of this Contract. Specialty work may require a specialty contractor's license, held by Bidder or a listed subcontractor.

2.02 **Bid Alternates:** Bid alternates are identified in Document 00 4113 (Bid Form). The determination of lowest bid shall be based upon: Base contract bid price only.

2.03 **Substitution of Securities:** City will permit the successful bidder to substitute securities for any retention monies withheld to ensure performance of the contract, as set forth in Document 00 6290 Escrow Agreement For Security Deposits In Lieu Of Retention and incorporated herein in full by this reference, in accordance with Section 22300 of the California Public Contract Code.

2.04 **Prevailing Wage Laws:** The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at **http://www.dir.ca.gov/oprl/pwd/** and are deemed included in the Bidding Documents. The successful Bidder shall post the applicable prevailing wage rates at the Site.

2.05 **Community Workforce Agreement:** This contract **WILL** be subject to the Community Workforce Agreement approved by the Berkeley City Council on June 23, 2015 (See Document 00 6580 – City of Berkeley Contracting Policies). The successful bidder and all subcontractors, at any tier, **WILL** be required to sign an Agreement to be Bound as a condition precedent to entering into any contract for this project.

2.06 **First Source Construction Agreement:** This contract **WILL NOT** be subject to the First Source Construction Agreement (See Document 00 6580 – City of Berkeley Contracting Policies).

2.07 This contract **WILL NOT** be subject to Supplementary Conditions for Federal Funding. Section 00 7201.

END OF SECTION

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DOCUMENT 00 2113

INSTRUCTIONS TO BIDDERS

Bids are requested by City of Berkeley ("City"), for a general construction contract, or work described in general, as set forth in Document 00 1113 (Notice Inviting Bids), and the following additional terms.

ARTICLE 1 - PROCEDURES FOR SUBMISSION OF BIDS

1.01 Required Pre-Bid Conference and Site Visit

A. City **WILL** conduct a **Non-Mandatory** Pre-Bid Conference and Site Visit at 1947 Center Street, at 11:00 AM, Wednesday, May 6, 2026. The location of work is open to the public during normal business or daylight hours. It is recommended that potential bidders visit the site independently to review site conditions prior to bid.

B. Questions regarding the site and the Bid Documents may be sent to the City's Representative to clarify such matters as Bidders may request. The Site Visit may be the Bidders' only opportunity to investigate conditions at the Site. Other Pre-Bid Site Visits may be scheduled at City's sole discretion, depending on staff availability.

C. City will issue Minutes of the Pre-Bid Conference, which shall constitute the sole and exclusive record and statement of the results of the Pre-Bid Conference. The Minutes issued by City are not Contract Documents.

1.02 Required Pre-Bid Investigations

A. Prior to submission of Bid, Bidder must conduct a careful examination of Bidding Documents and understand the nature, extent, and location of Work to be performed. Refer to Document 00 7200 (General Conditions) on required pre-bid investigations.

B. Bidders may examine any available existing conditions information (e.g., record documents, specifications, studies, drawings of previous work), as well as applicable environmental assessment information (if any) regarding the Project, which will be posted on the website location indicated in Document 00 1113 (Notice Inviting Bids), paragraph 1.03.

1.03 Bidder Questions and Answers

A. Bidders must direct all questions about the meaning or intent of Bidding Documents to City's Project Manager in writing as indicated in Document 00 1113 (Notice Inviting Bids), paragraph 1.03. Interpretations or clarifications considered necessary by City in response to such questions will be issued by written Addenda posted to the City's website.

B. Questions received less than ten (10) calendar days prior to the date for opening Bids may not be answered.

C. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect, and Bidders shall not rely on oral statements.

1.04 Addenda

A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by City. Addenda shall be acknowledged by number in Document 00 4113 (Bid Form) and shall be part of the Contract Documents. A complete listing of Addenda may be secured from City on the website as indicated in Document 00 1113 (Notice Inviting Bid), paragraph 1.03.

1. It is the Contractor's responsibility to check the City's website for Addenda prior to submitting their bid.

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ARTICLE 2 - RECEIPT OF BIDS

2.01 Date and Time

A. Sealed Bids will be received by the City until the date and time indicated in Document 00 1113 (Notice Inviting Bids). All Bid envelopes will be time-stamped to reflect their submittal time. City shall reject all Bids received after the specified time and will return such Bids to Bidders unopened. Bidders must submit Bids in accordance with this Document 00 2113.

2.02 Two Envelope Bid Submission:

A. City will receive Bids in opaque sealed 10 inch x 13 inch envelopes, containing the required items described herein.

B. Bidders must submit Bids in two envelopes: "Envelope A – Bid Submittals" and "Envelope B – Statement of Qualifications."

C. Bidders should mark their Bid envelopes using the name, address, identifying information and specification number, indicated in Document 00 1113 (Notice Inviting Bids).

2.03 Required Contents of "Envelope A – Bid Submittals"

A. Document 00 4113 (Bid Form). Bidders must submit Bids on Document 00 4113 (Bid Form) in accordance with the provisions of Document 00 4113. Bidders must complete all Bid items and supply all information required by Bid documents and specifications.

B. Document 00 4313 (Bond Accompanying Bid). Bidders must submit Document 00 4313 (Bond Accompanying Bid) accompanied by a cashier's check, certified check (certified without qualification and drawn on a solvent bank of the State of California or a National Bank doing business in the State of California) or completed form of Document 00 4313 of not less than 10% of the base Bid, payable to City and completed in accordance with the provisions of Document 00 4313.

C. Document 00 4314 (Bidder Registration and Experience Form). Bidders must submit Document 00 4314 (Bidder Registration and Experience Form), completed in accordance with the provisions of Document 00 4314.

D. Document 00 4330 (Subcontractor List). Bidders must submit Document 00 4330 (Subcontractors List) completed in accordance with the provisions of Document 00 4330. The Subcontractors List must include the names of all subcontractors for those subcontractors who will perform any portion of work, including labor, rendering of service, or specially fabricating and installing a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid amount. Any violation of this requirement may result in a Bid being deemed non-responsive and not being considered.

E. Document 00 4519 (Non-Collusion Affidavit). Bidders must submit Document 00 4519 (Non-Collusion Affidavit) completed in accordance with the provisions of Document 00 4519.

F. Document 00 4546 (Bidder Certifications). Bidders must submit Document 00 4546 (Bidder Certification) completed in accordance with the provisions of Document 00 4546.

2.04 Required Contents of "Envelope B – Statement of Qualifications"

A. Document 00 4513 (Statement of Qualifications for Construction Work). Bidder must submit Document 00 4513 (Statement of Qualifications for Construction Work) in accordance with the provisions of Document 00 4513.

ARTICLE 3 - BID OPENING AND EVALUATION

3.01 Determination of Apparent Low Bidder

A. City will open each Bidders' Envelope A at the time and place indicated in Document 00 1113 (Notice Inviting Bids), initially evaluate them for responsiveness, and determine an Apparent Low Bidder as specified herein.

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B. Apparent Low Bid will be determined solely on the total amount of all Bid items based on terms contained in Document 00 1113 (Notice Inviting Bids) and Document 00 4113 (Bid Form). All Bidders are required to submit Bids on all Bid items (including any alternates).

C. For the purposes of award, the apparent low Bidder will be the conforming responsible Bidder offering the lowest total amount for the Total Base Bid shown in the Bid Form. Once the low bidder is determined as herein described, the City reserves the right to award any combination of Additive Bid alternates, or not award any Additive Bid alternates, as it deems to be in the best interest of the City, regardless of whether the total bid of the particular combination selected is higher or lower than any other bidder for that same combination.

D. For the Apparent Low Bidder only, City will open Envelope B and evaluate the Apparent Low Bidder for responsiveness to the requirements of Document 00 4513 and for Responsibility.

E. If Apparent Low Bidder is determined to be non-responsive or non-responsible, then City may proceed to the next Apparent Low Bidder's Bid pursuant to any procedures determined in its reasonable discretion, and proceed for all purposes as if this Apparent Low Bidder were the original Apparent Low Bidder.

3.02 Evaluation of Bids

A. Bids must be full, complete, clearly written and using the required forms. Bidders shall make any change in the Bid by crossing out the original entry, entering and initialing the new entry. Bidder's failure to submit all required documents strictly as required entitles City to reject the Bid as non-responsive. All Bidders must submit Bids containing each of the fully executed documents supplied in this Project Manual.

B. In evaluating Bids, City will consider Bidders' qualifications, whether or not the Bids comply with the prescribed requirements, unit prices, and other data, as may be requested in Document 00 4113 (Bid Form) or prior to the Notice of Award.

C. City may conduct reasonable investigations and reference checks of Bidder and other persons and organizations as City deems necessary to assist in the evaluation of any Bid and to establish Bidder's responsibility, qualifications, financial ability and ability to perform the Work in accordance with the Contract Documents to City's satisfaction within the prescribed time. Submission of a Bid constitutes Bidder's consent to the foregoing.

D. City shall have the right to consider information provided by sources other than Bidder. City shall also have the right to communicate directly with Bidder's surety regarding Bidder's bonds.

E. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between written words and figures will be resolved in favor of the words.

F. Bids shall be deemed to include the written responses of the Bidder to any questions or requests for information of City made as part of Bid evaluation process after submission of Bid.

3.03 Reservation of Rights

A. City reserves the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder as non-responsive as a result of any error or omission in the Bid, or if City believes that it would not be in the best interest of Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by City. For purposes of this paragraph, an "unbalanced Bid" is one having nominal prices for some Bid items and enhanced prices for other Bid items.

B. City may retain Bid securities and Bid bonds of other than the Apparent Low Bidder for a period of 90 Days after award or full execution of the Contract, whichever first occurs.

C. City may reject any or all Bids and waive any informalities or minor irregularities in the Bids. City also reserves the right, in its discretion, to reject any or all Bids and to re-Bid the Project.

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ARTICLE 4 - MANDATORY BID PROTEST PROCEDURES

4.01 Submission of Written Bid Protest

A. Any Bid protest in connection with the construction contract or work described in general in Document 00 1113 (Notice Inviting Bids) must be submitted in writing to the Project Manager as indicated in Document 00 1113, paragraph 1.03 before 3:30 p.m. of the fifth Business Day following opening of the Bidders' envelopes.

B. The initial protest document must contain a complete statement of the basis for the protest.

C. The protest must refer to the specific portion of the document that forms the basis for the protest.

D. The protest must include the name, address, and telephone number of the person representing the protesting party.

E. Only Bidders who the City otherwise determines are responsive and responsible are eligible to protest a Bid; protests from any other Bidder will not be considered. In order to determine whether a protesting Bidder is responsive and responsible, City may evaluate all information contained in any protesting Bidder's Bid, and conduct the same investigation and evaluation as City is entitled to take regarding an Apparent Low Bidder.

F. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

4.02 Exclusive Remedy

A. The procedure and time limits set forth in this paragraph are mandatory and are Bidder's sole and exclusive remedy in the event of Bid protest. Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings. A Bidder may not rely on a protest submitted by another Bidder, but must timely pursue its own protest.

ARTICLE 5 - AWARD AND EXECUTION OF CONTRACT

5.01 Notice of Intent to Award and Submittal of Executed Contract Documents

A. If Contract is to be awarded, it will be awarded to the lowest responsible responsive Bidder. City will issue Document 00 5100 Notice of Intent to Award. Such Award, if made, will be made within sixty (60) calendar days after the opening of the Bid Proposals.

B. Successful Bidder must execute and submit to City the "Required Contract Documents and Proof of Insurance" set forth below, by 5:00 p.m. of the 10th calendar Day following the Notice of Intent to Award.

5.02 Required Contract Documents and Proof of Insurance

A. Document 00 5200 (Agreement), fully executed by successful Bidder. Submit **two** originals and an emailed PDF, each bearing an original signature (in blue ink) and initials on each page.

B. Document 00 6113.13 (Construction Performance Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.13. Submit **two** originals and an emailed PDF.

C. Document 00 6113.16 (Construction Labor and Material Payment Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.16. Submit **two** originals and an emailed PDF.

D. Document 00 6536 (Guaranty), fully executed by successful Bidder. Submit **two** originals and an emailed PDF.

E. Insurance certificates and endorsements required by Document 00 7316 (Supplementary Conditions — Insurance and Indemnification): Submit **one** original set and an emailed PDF.

F. Document 006580 (City Contracting Policies), fully executed by successful bidder. Submit **one** original set and an emailed PDF.

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5.03 Failure to Execute and Deliver Documents:

A. If Bidder to whom Contract is awarded, within the period described in this Document 00 2113, fails or neglects to execute and deliver all required Contract Documents and file all required bonds, insurance certificates, and other documents, City may, in its sole discretion, rescind the award, recover on Bidder's surety bond, or deposit Bidder's cashier's check or certified check for collection, and retain the proceeds thereof as liquidated damages for Bidder's failure to enter into the Contract Documents. Bidder agrees that calculating the damages City may suffer as a result of Bidder's failure to execute and deliver all required Contract Documents would be extremely difficult and impractical and that the amount of Bidder's required Bid security shall be the agreed and presumed amount of City's damages.

B. Upon such failure to timely deliver all required Contract Documents as set forth herein, City may determine the next Apparent Low Bidder and proceed accordingly. Such Award, if made, will be made within sixty (60) calendar days after the opening of the Bid Proposals.

ARTICLE 6 - GENERAL CONDITIONS AND REQUIREMENTS

6.01 Modification of Commencement of Work:

A. City expressly reserves the right to modify the date for the Commencement of Work under the Contract and to independently perform and complete work related to Project. City accepts no responsibility to Contractor for any delays attributed to its need to complete independent work at the Site.

B. City shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. City may elect to extend the time to receive faithful performance and labor and material payment bonds.

6.02 Conformed Project Manual:

A. Following Award of Contract, City may prepare a conformed Project Manual reflecting Addenda issued during bidding, which will, failing objection, constitute the approved Project Manual.

6.03 Payment Bond:

A. If the Project described in Document 00 1113 (Notice Inviting Bids) involves an expenditure in excess of twenty-five thousand dollars ($25,000), the successful Bidder must file a payment bond with and approved by City prior to entering upon the performance of the Work, in accordance with Civil Code § 3247.

6.04 Wage Rates:

A. The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at **http://www.dir.ca.gov/oprl/pwd/** and are deemed included in the Bidding Documents. The successful Bidder shall post the applicable prevailing wage rates at the Site.

6.05 Withdrawal of Bids:

A. Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Document 00 2113, only by written request for the withdrawal of Bid filed with City's Purchasing Department, at 2180 Milvia Street, 3rd Floor, Berkeley, CA 94704. Bidder or its duly authorized representative shall execute request to withdraw Bid.

6.06 Ineligible Contractors and Subcontractors:

A. 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)].

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B. City shall not accept a Bid from a Bidder who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code section 1777.1 or 1777.7. Bidders and the Contractor who is awarded the project contract shall not utilize, or allow work by, any subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code Section 1777.1 or 1777.7. (See California Public Contract Code Section 6109.) The California Division of Labor Standards Enforcement publishes a list of debarred contractors and subcontractors on the Internet at www.dir.ca.gov/DLSE/debar.html.

6.07 Substitutions:

A. Bidders must base their Bids on products and systems specified in Contract Documents or listed by name in Addenda. City will consider substitution requests only for "or equal items." Bidders wanting to use "or equal" item(s) may submit Document 00 6325 (Substitution Request Form) no later than 35 calendar days after Notice of Award. As a limitation on Bidder's privilege to request substitution of "or equal" items, City has found that certain items are designated as City standards and certain items are designated to match existing items in use on a particular public improvement either completed or in the course of completion or are available from one source. As to such items, City will not permit substitution. Such items are described in the Bidding Documents.

6.08 Definitions:

A. All abbreviations and definitions of terms used in this Document 00 2113 are set forth in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions).

END OF SECTION

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DOCUMENT 00 3132

GEOTECHNICAL DATA AND EXISTING CONDITIONS

ARTICLE 1 - REPORTS AND INFORMATION ON EXISTING CONDITIONS

1.01 Inspection of Reports:

A. City, its consultants, and prior contractors may have collected documents providing a general description of the Site and conditions of the Work. These documents may consist of geotechnical reports for and around the Site, contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding Underground Facilities (collectively, "Existing Conditions Data".)

B. Bidders may inspect Geotechnical and Existing Conditions Data. These documents are listed in Section 01 1100 (Summary) and are available for review at the address identified therein. Copies may be obtained for the cost of reproduction and handling upon Bidder's payment for the costs.

C. Existing Conditions Data is for information only and does not describe labor, materials or equipment furnished by Contractor, but rather, information regarding conditions of the work. Such Existing Conditions Data is not a Contract Document.

ARTICLE 2 - USE OF EXISTING CONDITIONS DATA

2.01 Above-Ground Existing Conditions:

A. City makes no warranty or representation of existing aboveground conditions, as-built conditions, or other aboveground actual conditions verifiable by reasonable independent investigation. These conditions are verifiable by Bidder by the performance of its own independent investigation that Bidder must perform prior to bidding and Bidder must not rely on the information supplied by City regarding existing conditions.

B. Bidder represents and agrees that in submitting its Bid, it is not relying on any information regarding above-ground existing conditions supplied by City.

2.02 Underground Facilities:

A. Information supplied regarding existing Underground Facilities at or contiguous to the Site is based on information furnished to City by others (e.g., the builders of such Underground Facilities or others).

B. City assumes responsibility for only the general accuracy, completeness or thoroughness of information regarding Underground Facilities that are owned by City. This express assumption of responsibility applies only if Bidder has conducted the independent investigation required of it under Document 00 7200 (General Conditions) and discrepancies were not apparent. Bidder is solely responsible for any interpretation or conclusion drawn from this information.

C. City is not responsible for information regarding Underground Facilities owned by others.

2.03 Hazardous Materials Surveys:

A. Bidders may rely on this data and information for general accuracy regarding the locations of potentially hazardous materials subject of the Work. City does not warrant and makes no representation regarding the completeness or thoroughness of any data or information regarding existing conditions or hazardous materials, including, but not limited to, quantities, characteristics, volumes, or associated structural features. Bidder represents and agrees that in submitting a Bid it is not relying on any such data, information or deductions.

B. Data and information regarding the locations of hazardous materials are not part of Contract Documents.

2.04 Geotechnical Data:

A. Bidder may rely upon the general accuracy of the "technical data" contained in the geotechnical reports and drawings identified above, but only insofar as it relates to subsurface conditions,

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provided Bidder has conducted the independent investigation required of it and discrepancies were not apparent.

B. The term “technical data” shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment, or structures that were encountered during subsurface exploration. The term “technical data” does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures. The term “technical data” shall not include the location of Underground Facilities.

C. Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder is solely responsible for any interpretation or conclusion drawn from any “technical data” or any other data, interpretations, opinions, or information contained in supplied geotechnical data.

D. Except as expressly set forth in this Document 00 3132, City does not warrant, and makes no representation regarding, the accuracy or thoroughness of any geotechnical data.

E. Bidder represents and agrees that in submitting its Bid, it is not relying on any geotechnical data supplied by City, except as specifically set forth herein.

ARTICLE 3 - INVESTIGATIONS

3.01 Required Investigations:

A. Before submitting a Bid, each Bidder shall be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of Contract Documents.

B. Bidders shall advise City in writing during the Bid period of any questions, suppositions, inferences or deductions Bidders may have for City’s review and response.

C. City has provided time in the period prior to bidding for Bidder to perform these investigations.

3.02 Access to Site for Investigations:

A. During the Pre-Bid Site Visit(s), City will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. The Bidder may request alternate dates and times to access the site. Such request must be made in writing at least ten (10) calendar days prior to bid. Bidders must fill all holes and clean up and restore the Site to its former conditions upon completion of such explorations, investigations, tests, and studies. Such investigations may be performed only under the provisions of Document 00 2113 (Instructions to Bidders) and Document 00 7200 (General Conditions) including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such investigation work. Each Bidder shall supply all equipment required to perform any investigations as each Bidder deems necessary. City has the right to limit the number of pieces of machinery operating at one time due to safety concerns.

END OF SECTION

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DOCUMENT 00 4113

BID FORM

TO **CITY OF BERKELEY**

THIS BID IS SUBMITTED BY:

_____

(Firm/Company Name)

Re: 1947 Center St. Window Replacement Project at 1947 Center Street., Specification No. 26-11762-C

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with City of Berkeley in the form included in the Contract Documents, Document 00 5200 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.

2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00 1113 (Notice Inviting Bids), and Document 00 2113 (Instructions to Bidders), including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 60 calendar days after the day of Bid opening, unless there is a bid protest, then 90 calendar days after the day of bid opening. Bidder will sign and submit Document 00 5200 (Agreement) and other documents required by Document 002113, paragraph 5.02 (Required Contract Documents and Proof of Insurance) within 20 calendar days after receipt of City's Notice of Intent to Award.

3. In submitting this Bid, Bidder represents that Bidder has examined all of the Contract Documents, performed all necessary Pre-Bid investigations as set forth in Document 00 5200 (Agreement) Article 6 (Contractor's Representation), received the Pre-Bid conference minutes (if any), and received the following Addenda:

Addendum Number	ADDENDUM DATE	Signature of Bidder

4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedule of Bid Prices:

SCHEDULE OF BID PRICES

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01 1100 (Summary of Work). Quote in figures only, unless words are specifically requested.

ITEM	DESCRIPTION	PRICE ($)
1	All Work for window abatement, removal, and replacement at the 6th Floor, in accordance with the Contract Documents.	
2	All Work for restrooms on the 6th floor, in accordance with the Contract Documents.	
3	All Work for drinking fountains at the Basement, 1st Floor, 2nd Floor, 4th Floor, 5th Floor, and 6th Floor, in accordance with the Contract Documents.	
4	All Work for the Automatic Gas Shutoff Valve, in accordance with the Contract Documents.	
	Total Bid Price: (Bid Items 1-4)	

Total Bid Price: (Bid Items 1-4)

_____
(Words)

Bid Alternates (Bid Alternates 1 through 5 are to be priced for City consideration to be included in the project at the sole discretion of the City. Bid Alternates 1 through 5 will not be used at bid opening.)

ITEM	DESCRIPTION	PRICE ($)
A1	Bid Alternate A1: All Work for window abatement, removal, and replacement at the 5th Floor South Elevation, in accordance with the Contract Documents.	
A2	Bid Alternate A2: All Work for window abatement, removal, and replacement at the 5th Floor East Elevation, in accordance with the Contract Documents.	
A3	Bid Alternate A3: All Work for window abatement, removal, and replacement at the 5th Floor West Elevation, in accordance with the Contract Documents.	
A4	Bid Alternate A4: All Work for window abatement, removal, and replacement at the 5th Floor North Elevation, in accordance with the Contract Documents.	
A5	Bid Alternate A5: All Work for restrooms on the 5th floor, in accordance with the Contract Documents.	

5. Subcontractors for work included in all Bid items are listed on Document 00 4330 (Subcontractors List) submitted herewith.

6. The undersigned Bidder understands that City reserves the right to reject this Bid, but that this Bid shall remain open and shall not be withdrawn for a period of sixty (60) calendar days from the date prescribed for its opening.

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7. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Intent to Award, is mailed or delivered to the undersigned Bidder within the time described in Paragraph 2 of this Document 00 4113 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00 2113 (Instructions to Bidders) within the times specified therein.

8. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.

9. The undersigned Bidder herewith encloses cash, a cashier's check, or certified check of or on a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do a surety business in the State of California, in form specified in Document 00 2113 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to City of Berkeley.

10. The undersigned Bidder agrees to commence Work under the Contract Documents on the date established in Document 00 7200 (General Conditions) and to complete all Work within the time specified in Document 00 5200 (Agreement).

11. The undersigned Bidder agrees that, in accordance with Document 00 7200 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00 5200 (Agreement) shall be as set forth in Document 00 5200.

12. The names of all persons interested in the foregoing Bid as principals are:

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

NAME OF BIDDER: _____

licensed in accordance with an act for the registration of Contractors, and with license number:_____ Expiration: _____.

_____

(Place of Incorporation, if Applicable) (Principal)

_____

(Principal)

_____

(Principal)

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

_____

(Signature of Bidder)

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a

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partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address: _____

_____

_____

Contractor's Representative(s): _____
(Name/Title)

_____
(Name/Title)

_____
(Name/Title)

Officers Authorized to Sign Contracts _____
(Name/Title)

_____
(Name/Title)

_____
(Name/Title)

Telephone Number(s): _____
(Area Code) (Number)

_____
(Area Code) (Number)

Fax Number(s): _____
(Area Code) (Number)

_____
(Area Code) (Number)

Date of Bid: _____

END OF SECTION

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DOCUMENT 00 4313

BOND ACCOMPANYING BID

KNOW ALL BY THESE PRESENTS:

That the undersigned

_____

,

(Name of Contractor)

as Principal and the undersigned as Surety are held and firmly bound unto City of Berkeley, as obligee, in the penal sum of _____

(Dollar Amount in Words)

Dollars **($_____)** lawful money of the United States of America being at least ten percent (10%) of the aggregate amount of said Principal _____'s base Bid, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is submitting a Bid for

Specification No. 26-11762-C
1947 Center St. Window Replacement Project
at 1947 Center Street..

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by the said Principal be accepted and the Contract be awarded to said Principal and said Principal shall within the required periods enter into the Contract so awarded and provide the required Construction Performance Bond, Construction Labor and Material Payment Bond, insurance certificates, Guarantee, and all other endorsements, forms, and documents required under Document 00 2113 (Instructions to Bidders), then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument this _____ day of _____, 20___.
(Month)

(Corporate Seal) By _____
Principal

By _____
Surety

(Corporate Seal) By _____
Attorney in Fact

END OF SECTION

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DOCUMENT 00 4314

BIDDER REGISTRATION FORM

INSTRUCTIONS

In order to register to undertake work for City of Berkeley, Bidder **must**:

1) Fill out this registration form completely; do not leave blanks.
2) Provide certificates of insurance or a letter evidencing coverage complying with Document 00 4513 (Statement of Qualifications).

INDEPENDENT CONTRACTOR REGISTRATION

Contractor's License # _____

Date: _____ Fed I.D. # _____

Full Corporate Name of Company: _____

Street Address: _____

_____

Mailing Address: _____

_____

Phone: _____ Fax: _____

Name of Principal Contact: _____

Type of Business: _____ Sole Proprietor _____ Partnership
_____ Non-Profit 501(c)(3) _____ Corporation
_____ other (please explain:_____)

INSURANCE

Workers' Compensation:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

General Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

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Policy Number: _____

Policy Limits: $ _____

A.M. Best Rating: _____

Automobile Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: $ _____

A.M. Best Rating: _____

All-risk Course of Construction (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: $ _____

A.M. Best Rating: _____

Professional Liability (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: $ _____

A.M. Best Rating: _____

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Pollution Legal Liability Insurance (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: $ _____

A.M. Best Rating: _____

BIDDER CERTIFIES, UNDER PENALTY OF PERJURY, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND AUTHORIZES OWNER, AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

_____
SIGNATURE

_____
DATE

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SAFETY EXPERIENCE

The following statements as to the Bidder's safety experience are submitted with the Bid, as part thereof, and the Bidder guarantees the truthfulness and accuracy of all information.

1. List Bidder's interstate Experience Modification Rate for the last three years.

   [20__] _____ **[20__]** _____ **[20__]** _____

2. Use Bidder's last year's Cal/OSHA 300 log to fill in the following number of injuries and illnesses:

   a. Number of lost workday cases _____

   b. Number of medical treatment cases _____

   c. Number of fatalities _____

3. Employee hours worked last year _____

4. State the name of Bidder's safety engineer/manager:

Attach a resume or outline of this individual's safety and health qualifications and experience.

I CERTIFY, UNDER PENALTY OF PERJURY, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND I AUTHORIZE OWNER, AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

BIDDER:

By: _____
Signature

Its: _____
Title

Date_____

END OF SECTION

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DOCUMENT 00 4330

SUBCONTRACTORS LIST

Bidder submits the following information as to the subcontractors Bidder intends to employ if awarded the Contract.

Full Name of Subcontractor (Sub.) and Address of Mill or Shop	Sub.'s License No.	Description of Work: Reference to Bid Items	Sub.'s Bid Amount	Sub.'s Depart. Of Industrial Relations No.

(Bidder to attach additional sheets if necessary)

END OF SECTION

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DOCUMENT 00 4513

STATEMENT OF QUALIFICATIONS FOR CONSTRUCTION PROJECTS

ARTICLE 1 – GENERAL INFORMATION

1.01 Minimum Bidder Qualifications.

A. Bidders must be duly licensed in accordance with the California Business & Professions Code and have a history of work performance sufficient to meet the requirements of a responsible bidder in the California Public Contract Code Section 1104.

B. Bidders must have three (3) years experience as a continuously operating entity engaged in the performance of similar work.

C. Bidders must demonstrate successful experience with type of work of this Project, to include, within the past year, completed two (2) projects of a similar nature and complexity with a contract dollar amount of (i.) at least 75% of the amount of Bidder's Bid or (ii.) 125% of such amount in the aggregate.

1.02 Measurement.

A. Bidder's compliance with the minimum qualification requirements will be measured by Bidder's experience as an operating entity and also by the experience of the supervisory personnel who will have responsible charge of the various major components of the Work.

B. If Bidder subcontracts portions of the Work, City, in its determination of whether the minimum qualification requirements have been met, may consider the qualifications of the Subcontractor's supervisory personnel.

C. The qualifications of the Key Personnel are to be submitted with the Statement of Qualifications ("SOQ"), by providing the information described in this Document 00 4513.

ARTICLE 2 – Required Contents of SOQ Submission

2.01 Transmittal Letter

A. The Transmittal Letter shall name the proposed prime contractor, its legal structure (i.e., corporation, partnership, limited partnership, joint venture). If a joint venture or partnership is proposed, Bidder shall identify partner and/or member of the joint venture and their roles and responsibilities.

2.02 Submittals:

A. Completed Questionnaire. Bidder shall include a completed Statement of Qualification Questionnaire in the form attached to this Document 00 4513 as Attachment "A".

B. License: Evidence of a valid contractor's license and required licenses of all licensees of persons who are Key Personnel necessary to perform the Work.

C. Litigation History. Description of litigation history for the past three years, including names of involved parties, nature of dispute, and disposition.

2.03 Additional Submittals:

After bid opening, Contractor maybe required to supply the City with the following submittals upon request.

A. Resumes of Proposed Key Personnel. Bidder shall provide a resume for each named Key Personnel of Bidder, to include as necessary: Years of experience; Education - degrees, schools and years obtained; Professional Registrations; Fluency in English (Yes/No); At least two client references, including contact names, addresses and telephone numbers, and description of projects of a similar nature worked on in the past five years.

B. Audited or Reviewed Financial Statements. Include audited or reviewed financial statements for the three most recently completed fiscal years for Bidder and each member of any proposed

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consorting or joint venture. Also include audited or reviewed financial statements for the three most recently completed fiscal years for any parent companies) of Bidder and each member of any proposed consortium oriole venture.

C. Surety Letter re: Capability to Provide Required Performance and Payment Bonds. Bidder shall include a letter from a surety duly licensed to do business in the State of California, having a financial rating from A.M. Best Company of A-, VIII or better, that the surety has agreed to provide Bidder with the required performance and payment bonds in accordance with the requirements set forth in Documents 00 6113.13 (Construction Performance Bond) and 00 6113.16 (Construction Labor and material Payment bold), each in the penal sum of the Contractor's bid when submitted. Owner shall have the right to verify with the surety that the surety, based upon the Bid prices, will issue the required bonds under the conditions stated.

D. Insurer Letter re: Capability to Provide the Required Insurance. Bidder shall provide a letter from an insurance underwriter, having a financial rating reasonably acceptable to City, confirming that the insurer will provide Bidder the required coverages and amounts specified in the Contract Documents.

E. Description of Human and Physical Resources. Bidder shall identify, describe, and quantify for itself, the following technical information for the construction work: Description and location of manufacturing facilities, naming products and quantifying production capacity and current demand; Description of field organization(s), naming skills and equipment; Description of safety program quality control procedures, and safety experience.

2.04 Format.

A. The SOQ shall be clear and concise to enable management-oriented personnel to make a thorough evaluation and arrive at a sound determination as to whether the SOQ meet City's requirement. To this end, the SOQ should be so specific, detailed and complete as to demonstrate clearly and fully that the Bidder has a thorough understanding of and has demonstrated knowledge of the requirements to perform the Work (or applicable portion thereof).

B. Any explanation requested by a Bidder regarding the meaning or interpretation of this Document 00 4513 must be requested in writing and with sufficient time allowed for a reply to reach Bidder before the submission of its SOQ. Oral explanations or instructions will not be binding. Any information provided to any prospective Bidder concerning this Document 00 4513 will be furnished to all prospective Bidders as an Addendum to the Bidding Documents.

STATEMENT OF QUALIFICATION QUESTIONNAIRE FOLLOWS ON NEXT PAGE

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ATTACHMENT "A" – STATEMENT OF QUALIFICATION QUESTIONNAIRE

Bidders shall complete the entire Statement of Qualification Questionnaire and submit it in accordance with Document 00 2113 (Instructions to Bidders) and Document 00 4513 (Statement of Qualifications). Failure to complete the questionnaire or inclusion of any false statement(s) shall be ground for immediate disqualification.

CONTACT INFORMATION

Company Name: _____

Owner of Company: _____

Contact Person: _____

Address: _____

Phone: _____ Fax: _____

PART A: GENERAL INFORMATION

1. Does Bidder possess a valid and current California Contractor's license for the work proposed? Yes ___ No ___

2. Does Bidder have a minimum of **$2,000,000** liability insurance coverage? Yes ___ No ___

3. Has Bidder's License been revoked at any time in the last five years? Yes ___ No ___

4. Has Bidder been "default terminated" by an Owner (other than for convenience), or has a Surety completed a contract for Bidder within the last five years? Yes ___ No ___

5. Has Bidder been convicted more than twice for failure to pay prevailing wages in the last three years? Yes ___ No ___

6. Will Bidder provide copies of its reviewed or audited financial statements and accompanying notes for the last three years, if requested? Yes ___ No ___

Bidder may be disqualified if any answer to questions 1, 2, or 6 is No.
Bidder may be disqualified if any answer to questions 3, 4, or 5 is Yes.

PART B: SAFETY, PREVAILING WAGE, DISPUTES AND BONDS

(SAFETY)

1. Has Cal/OHSA, Federal OSHA, the EPA or any Air Quality Management Owner cited Bidder in the past five years?
   Yes ___ No ___ If yes, attach description of each citation.

2. How often does Bidder require documented safety meetings be held for:

Field Supervisor	Weekly _____	Bi-Weekly _____	Monthly _____	Less Than Monthly _____
Employees	Weekly _____	Bi-Weekly _____	Monthly _____	Less Than Monthly _____
New Hires	Weekly _____	Bi-Weekly _____	Monthly _____	Less Than Monthly _____
Subcontractors	Weekly _____	Bi-Weekly _____	Monthly _____	Less Than Monthly _____

3. How often does Bidder conduct documented safety inspections?
   Quarterly _____ Semi-annually _____ Annually _____ Other _____

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4. Does Bidder have home office safety representatives who visit/audit the job site?
   Quarterly _____ Semi-annually _____ Annually _____ Other _____

5. What is Bidder's Interstate Experience Modification Rate? _____. (A rating in excess of ***[1]*** may constitute grounds for disqualification as non-responsible).

(PREVAILING WAGE PROVISIONS)

6. Has Bidder been fined, penalized or otherwise found to have violated any prevailing wage or labor code provision? If yes, attach description of each occurrence.
   Yes _____ No _____

(LICENSE PROVISIONS)

7. Has Bidder changed names or license numbers in the past 5 years? If so, please state reason for change.
   Yes _____ No _____ Reason: _____

(DISPUTES)

8. Has Bidder had any claims, litigation, or disputes ending in mediation or arbitration, or termination for cause associated with any project in the past 5 years? If yes, attach description of each instance including details of total claim amount, settlement amount, and Owner's name and phone number.
   Yes _____ No _____

(BONDING)

9. Bonding Capacity – Provide documentation from Bidder's surety identifying the following:
   Name of bonding company/surety: _____

   Name of Surety Agent: _____

   Surety Agent address: _____

   Surety Agent phone number: _____

   Is surety a California-admitted surety? Yes _____ No _____

   Is surety listed in the current edition of the California Department of the Treasury's Listing of approved sureties? Yes _____ No _____

   List surety's A.M. Best Rating: _____

   What is Bidder's total bonding capacity? _____

   What percent does Bidder pay for bonds? _____

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PART C: EXPERIENCE OF PRIME CONTRACTOR

The nature of this Project requires prior similar experience for the firm and the Key Personnel assigned. Summarize similar project experience below and provide the detailed project information requested:

Prime Contractor. List three projects of similar size and scope to the Work of the Contract, completed in the past two (2) years, and indicate who were the superintendent, project manager and scheduler. NOTE: this listing will be used to assess compliance with the stated minimum qualifications in Section 1.01.

Project Name	Construction Cost ($)	Year Completed	Name of Project Superintendent	Name of Project Manager	Name of Project Scheduler

List Key Personnel that will be assigned to the Work of the current Project and their experience/training with the projects listed above:

Project Manager: _____

Project Superintendent: _____

Project Scheduler: _____

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Recent Projects.

Provide information about three (3) of its most currently completed projects. Names and references must be current and verifiable. This listing will be used to assess compliance with the stated minimum qualifications in Section 1.01. If a separate sheet is used, it must contain all of the following information:

1. Project Name: _____

   Location: _____

   Owner: _____

   Owner Contact (name and phone): _____

   Architect/Engineer: _____

   Architect/Engineer Contact (name and phone number): _____

   Const. Mgr. or Project Mgr. (name and phone number): _____

   Description of Project, Scope of Work Performed: _____

   _____

   Total Construction Cost: _____

   Total Change Order Amount: _____

   Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

   Original Scheduled Date of Completion: _____

   Time Extensions Granted (number of calendar days): _____

   Actual Date of Completion: _____

   Number of Stop Notices filed by Subcontractors or Suppliers: _____

2. Project Name: _____

   Location: _____

   Owner: _____

   Owner Contact (name and phone): _____

   Architect/Engineer: _____

   Architect/Engineer Contact (name and phone number): _____

   Const. Mgr. or Project Mgr. (name and phone number):_____

   Description of Project, Scope of Work Performed: _____

   _____

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Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of calendar days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

3. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

_____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of calendar days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

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PART D: FINANCIAL INFORMATION

1. Has Bidder ever reorganized under the protection of bankruptcy laws?
   Yes _____ No _____ If yes, please state when _____

2. If Bidder has had the general liability carrier identified in Document 00 4314 (Bidder Registration and Safety Experience Form) for less than 5 years, please provide additional information below for balance of the last 5 years:

   Agency Name: _____

   Contact Name: _____

   Phone Number _____

   Carrier: _____ A.M. Best Rating: _____

   Carrier: _____ A.M. Best Rating: _____

   Carrier: _____ A.M. Best Rating: _____

3. Has Bidder ever had insurance terminated by a carrier? Yes _____ No _____
   If yes, explain on a separate signed sheet marked with correlating cross-reference to this paragraph of the questionnaire.

Bidder hereby declares under penalty of perjury that all the information provided in this questionnaire is true and correct.

_____
SIGNATURE

_____
TITLE

END OF SECTION

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DOCUMENT 00 4519

NON-COLLUSION AFFIDAVIT

PUBLIC CONTRACT CODE §7106

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

_____, being first duly sworn,
(Name of Principal of Bidder)

deposes and says that he or she is _____
(Office of Affiant)

of _____, the party
(Name of Bidder)

making the foregoing Bid, that the Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Bid is genuine and not collusive or sham; that Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham Bid, or that anyone shall refrain from bidding, and that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid price of Bidder or any other bidder, or to fix any overhead, profit or cost element of the Bid price, or of that of any other bidder, or to secure any advantage against City , or anyone interested in the proposed contract; that all statements contained in the Bid are true; and further, that Bidder has not, directly or indirectly, submitted its Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, Bid depository, or to any member or agent thereof to effectuate a collusive or sham Bid.

Executed under penalty of perjury under the laws of the State of California:

_____
(Name of Bidder)

_____
(Signature of Principal)

Subscribed and sworn before me _____

This _____ day of _____, 20___

Notary Public of the State of _____

In and for the County of_____

My Commission expires_____ (Seal)

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NOTE: If Bidder is a partnership or a joint venture, this affidavit must be signed and sworn to by every member of the partnership or venture.

NOTE: If Bidder [including any partner or venturer of a partnership or joint venture] is a corporation, this affidavit must be signed by the Chairman, President, or Vice President and by the Secretary, Assistant Secretary, Chief Financial Officer, or Assistant Treasurer.

NOTE: If Bidder's affidavit on this form is made outside the State of California, the official position of the person taking such affidavit shall be certified according to law.

END OF SECTION

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DOCUMENT 00 4546

BIDDER CERTIFICATIONS

TO BE EXECUTED BY ALL BIDDERS AND SUBMITTED WITH BID

The undersigned Bidder certifies to City as set forth in sections 1 through 5 below.

1. STATEMENT OF CONVICTIONS

By my signature hereunder, I hereby swear, under penalty of perjury, that no more than one final, unappealable finding of contempt of court by a Federal Court has been issued against Bidder within the past two years because of failure to comply with an order of a Federal Court or to comply with an order of the National Labor Relations Board.

2. CERTIFICATION OF WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

3. CERTIFICATION OF PREVAILING WAGE RATES AND RECORDS

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 1773 of the California Labor Code, which requires the payment of prevailing wage on public projects. Also, that the Contractor and any subcontractors under the Contractor shall comply with California Labor Code §1776, regarding wage records, and with California Labor Code §1777.5, regarding the employment and training of apprentices. It is the Contractor's responsibility to ensure compliance by any and all subcontractors performing work under this Contract.

4. CERTIFICATION OF COMPLIANCE WITH PUBLIC WORKS CHAPTER OF LABOR CODE

By my signature hereunder, as the Contractor, I certify that I am aware of Sections 1777.1 and 1777.7 of the California Labor Code and Contractor and Subcontractors and am eligible to bid and work on public works projects.

5. CERTIFICATION OF ADEQUACY OF CONTRACT AMOUNT

By my signature hereunder, as the Contractor, pursuant to Labor Code Section 2810(a), I certify that, if awarded the Contract based on the undersigned's Bid, the Contract will include funds sufficient to allow the Contractor to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided. I understand that Owner will be relying on this certification if it awards the Contract to the undersigned.

BIDDER: _____
(Name of Bidder)

Date: _____, **[20]**

By: _____
(Signature)

Name: _____
(Print Name)

Its: _____
(Title)

END OF SECTION

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DOCUMENT 00 5100

NOTICE OF INTENT TO AWARD

Dated _____

TO: _____

ADDRESS: _____

CONTRACT NO.: _____

CONTRACT FOR: City of Berkeley
1947 Center St. Window Replacement Project AT 1947 Center St, Berkeley, CA 94704

The Contract Sum of your contract is XXX Million Dollars and No Cents ($X,XXX,XXX.XX).

1. **Two** copies of the proposed Contract Documents listed below accompany this Notice of Award.

2. You must comply with the following conditions precedent by **5:00 p.m.** of the **20th Day** following the date of this Notice of Award, that is, by Day of Week, Month Day, Year.

   a. Deliver to Owner **two** fully executed counterparts and an emailed PDF copy of Document 00 5200 (Agreement). Each copy of Document 00 5200 (Agreement) must bear your original signature on the signature page and your initials on each page.

   b. Deliver to Owner **two** originals and an emailed PDF of Document 00 6113.13 (Construction Performance Bond), executed by you and your surety.

   c. Deliver to Owner **two** originals and an emailed PDF of Document 00 6113.16 (Construction Labor and Material Payment Bond), executed by you and your surety.

   d. Deliver to Owner **two** original copies and an emailed PDF of Document 00 6536 (Guaranty), each executed by you.

   e. Deliver to Owner **one** original set and an emailed PDF of the insurance certificates with endorsements required under Document 00 7316 (Supplementary Conditions – Insurance).

   f. Deliver to Owner **one** original copy and an emailed PDF of all documents found in Document 00 6580 (City of Berkeley Contracting Policies) executed by you.

3. Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid security forfeited.

4. Within 21 calendar days after you comply with the conditions in Paragraph 2 of this Document 00 5100, Owner will return to you one fully signed counterpart of Document 00 5200 (Agreement) with [number] copies of the Project Manual (including Specifications and Drawings) and [number] sets of full-size Drawings.

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5. Before you may start any Work at the Site, you must attend a preconstruction conference. The preconstruction conference may be arranged through **Uriel Gonzalez (510) 981-6627.** Questions regarding bonds and insurance may be directed to **Uriel Gonzalez** at the same number.

6. Upon commencement of the Work, you and each of your Subcontractors shall certify and provide Owner copies of payroll records on forms provided by the Division of Labor Standards Enforcement, in accordance with California Labor Code §1776.

OWNER

BY: _____
(Title)

_____
(Print Name)

ATTEST: _____
Secretary

_____
(Print Name)

AUTHORIZED BY **[CITY / COUNTY / DISTRICT]** RESOLUTION:

NO: _____

ADOPTED: _____, **[20___]**

[Copy of Resolution Attached]

END OF DOCUMENT

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DOCUMENT 00 5200

AGREEMENT

THIS AGREEMENT, dated this **[date]** day of **[Month], [20___]**, by and between **Contractor's Name** whose place of business is located at **Contractor's Address** ("Contractor"), and **City of Berkeley** ("City"), acting under and by virtue of the authority vested in Owner by the laws of the State of California.

SPECIFICATION NUMBER 26-11762-C

1947 Center St. Window Replacement Project
at
1947 Center St, Berkeley, CA 94704

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and City agree as follows:

ARTICLE 1 – SCOPE OF WORK OF THE CONTRACT

1.01 WORK OF THE CONTRACT

A. Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents (**Work**).

1.02 PRICE FOR COMPLETION OF THE WORK

A. City shall pay Contractor the following Contract Sum $X,XXX,XXX.XX for completion of Work in accordance with Contract Documents as follows: [LUMP SUM]

B. The Contract Sum includes all allowances (if any).

ARTICLE 2 – COMMENCEMENT AND COMPLETION OF WORK

2.01 COMMENCEMENT OF WORK

A. Contractor shall commence Work on the date established in the Notice to Proceed (**Commencement Date**).

B. City reserves the right to modify or alter the Commencement Date.

2.02 COMPLETION OF WORK

A. Contractor shall achieve Substantial Completion of the entire Work within **140** calendar days from the Commencement Date.

B. Contractor shall achieve Final Completion of the entire Work **154** calendar days from the Commencement Date.

ARTICLE 3 – PROJECT REPRESENTATIVES

3.01 CITY'S PROJECT MANAGER

A. City has designated Uriel Gonzalez as its Project Manager to act as City's Representative in all matters relating to the Contract Documents.

B. Project Manager shall have final authority over all matters pertaining to the Contract Documents and shall have sole authority to modify the Contract Documents on behalf of City, to accept work, and to make decisions or actions binding on City, and shall have sole signature authority on behalf of City.

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C. City may assign all or part of the Project Manager's rights, responsibilities and duties to a Construction Manager, or other City Representative.

3.02 CONTRACTOR'S PROJECT MANAGER

A. Contractor has designated **[_____ or other]** as its Project Manager to act as Contractor's Representative in all matters relating to the Contract Documents.

3.03 ARCHITECT/ENGINEER

A. **Noll & Tam Architects and Wiss, Janney, Elstner Associated, Inc.** furnished the Plans and Specifications and shall have the rights assigned to Architect/Engineer in the Contract Documents.

B. Architect/Engineer has designated **Tom Beil** as its project managers, to act as its representative for receiving and making communications authorized under the Contract Documents.

ARTICLE 4 – LIQUIDATED DAMAGES FOR DELAY IN COMPLETION OF WORK

4.01 LIQUIDATED DAMAGE AMOUNTS

A. As liquidated damages for delay, Contractor shall pay City four thousand two hundred dollars ($4,200.00) for each Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.

B. As liquidated damages for delay, Contractor shall pay City four thousand two hundred dollars ($4,200.00) for each Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

4.02 SCOPE OF LIQUIDATED DAMAGES

A. Measures of liquidated damages shall apply cumulatively.

B. Limitations and stipulations regarding liquidated damages are set forth in Document 00 7200 (General Conditions).

ARTICLE 5 – CONTRACT DOCUMENTS

5.01 Contract Documents consist of the following documents, including all changes, Addenda, and Modifications thereto:

Document 00 5100	Notice of Award
Document 00 5200	Agreement
Document 00 5500	Notice to Proceed
Document 00 6113.13	Construction Performance Bond
Document 00 6113.16	Construction Labor and Material Payment Bond
Document 00 6536	Guaranty
Document 00 6530	Release of Claims
Document 00 6325	Substitution Request Form
Document 00 6290	Escrow Agreement for Security Deposits
Document 00 6580	City of Berkeley Contracting Policies
Document 00 7200	General Conditions
Document 00 7201	Supplementary Conditions
Document 00 7316	Supplementary Conditions – Insurance
Document 00 7317	Supplemental Conditions – Contracting Policies
Document 00 7319	Supplemental Conditions – Hazardous Materials
Document 00 7380	Apprenticeship Programs
Document 00 9113	Addenda
Specifications	Divisions 1 through 9

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Maps, Drawings and Sketches listed in Document 00 0115

5.02 There are no Contract Documents other than those listed above. The Contract Documents may only be amended, modified or supplemented as provided in Document 00 7200 (General Conditions).

ARTICLE 6 – CONTRACTOR'S REPRESENTATIONS

In order to induce City to enter into this Agreement, Contractor makes the following representations and warranties:

6.01 Contractor has visited the site and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.

6.02 Contractor has examined thoroughly and understood all reports of exploration and tests of subsurface conditions, as-built drawings, drawings or reports, available for Bidding purposes, of physical conditions, including Underground Facilities, identified in the Bid Documents, or which may appear in the Drawings, and accepts the determination set forth in these documents and Document 00 7200 General Conditions of the limited extent of the information contained in such reports and drawings upon which the Contractor may be entitled to rely. Contractor agrees that except for the information so identified, Contractor does not and shall not rely on any other information contained in such reports and drawings.

6.03 Contractor has conducted or obtained and has understood all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in Article 6.02 above) which pertain to the subsurface conditions, as-built conditions, Underground Facilities and all other physical conditions at or contiguous to the site or otherwise which may affect the cost, progress, performance or furnishing of Work, as Contractor considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, test, reports, studies or similar information or data are or will be required by Contractor for such purposes.

6.04 Contractor has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

6.05 Contractor has given the Project Manager prompt written notice of all conflicts, errors, ambiguities or discrepancies that it has discovered in or among the Contract Documents and as-built and actual conditions and the written resolution thereof through Addenda issued by Project Manager is acceptable to Contractor.

ARTICLE 7 – MISCELLANEOUS

7.01 Terms and abbreviations used in this Agreement are defined in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions) and will have the meaning indicated therein.

7.02 It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of City or acting as an employee, agent, or representative of City, liable on this Agreement

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or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of City is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.

7.03 In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, Contractor or Subcontractor offers and agrees to assign to the awarding body 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 purchases 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 City tenders final payment to Contractor, without further acknowledgment by the parties.

7.04 Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at Owner's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §§ 1860 and 1861, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees. Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

7.05 No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

7.06 This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Alameda, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the County of Alameda.

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IN WITNESS WHEREOF the parties have executed this Agreement in triplicate the day and year first above written.

CITY OF BERKELEY

By:_____
City Manager

_____
(Print Name)

Attest:
CITY OF BERKELEY

_____
City Clerk

_____
(Print Name)

CONTRACTOR'S NAME

By: _____
(Signature)

Its: _____
Title (If Corporation: Chairman, President or Vice President)

By: _____
(Signature)

Its: _____
Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

Pre-approved as to form:
CITY ATTORNEY
8/2016

END OF DOCUMENT

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DOCUMENT 00 5500

NOTICE TO PROCEED

Dated: _____, 20___

To: _____
(Contractor)

Address: _____

_____

CONTRACT FOR: **City of Berkeley 1947 Center St. Window Replacement Project AT 1947 Center St, Berkeley, CA 94704**

CONTRACT NO: XXXXXX

You are notified that the Contract Time under the above Contract will commence to run on _____ **[20___]**. On that date, you are to start performing your obligations with respect to Work at the Site under the Contract Documents. In accordance with Article 2 of Document 00 5200 (Agreement), the dates of Substantial Completion and Final Completion for the entire Work are _____,**[20___]** and _____, **[20___]**, respectively.

Before you may start any Work at the Site, you must:

1. Submit certified Safety Program and related information
2. Submit copies of applicable permits
3. Submit approved fire protection plan, if applicable
4. **[Other]**

OWNER

By: _____

Its: _____

END OF DOCUMENT

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DOCUMENT 00 6113.13

CONSTRUCTION PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

1.01 THAT WHEREAS, **City of Berkeley** ("City"), a public agency of the State of California, has awarded to **Contractor's Name** as Principal, Specification Number **26-11762-C,** dated the _____ day of _____, 20___ (the "Contract"), titled 1947 Center St. Window Replacement Project in the amount of $X,XXX,XXX.XX, which Contract is by this reference made a part hereof, for the work of the following Contract:

(Describe Contract Work) _____

1.02 AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof;

1.03 NOW, THEREFORE, we, the undersigned Principal and **(Name of Surety)** _____ as Surety are held and firmly bound unto City in the sum of 100% OF THE CONTRACT PRICE to be paid to City or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1.04 THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by City, shall promptly and faithfully perform the covenants, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by City, with or without notice to Surety, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless City as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

1.05 No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, or work or actions by City to mitigate the damages resulting from any breach in performance by Contractor, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

1.06 Whenever Principal shall be and declared by City in default under the Contract, Surety shall promptly remedy the default, or shall promptly, and in no event later than thirty (30) calendar days from notice:

A. Undertake through its agents or independent contractors (but having qualifications and experience reasonably acceptable to City, to complete the Contract in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, indemnities, and the payment of liquidated damages; or

B. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and, upon determination by City of the lowest responsible bidder, arrange for a contract between such bidder and City and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages; but, in

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any event, Surety's total obligations hereunder shall not exceed the amount set forth in the third paragraph hereof. The term "balance of the Contract Sum," as used in this paragraph, shall mean the total amount payable by City to the Principal under the Contract and any amendments thereto, less the amount paid by City to Principal.

1.07 Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing City's rights against the others.

1.08 Surety may not use Contractor to complete the Contract absent City's Consent. City shall have the right in its sole discretion to continue the work of the Contract, as necessary following a default and/or termination, as necessary to prevent risks of personal injury, property damage or delay to the Project.

1.09 No right of action shall accrue on this bond to or for the use of any person or corporation other than City or its successors or assigns.

1.10 Surety shall join in any proceedings brought under the Contract upon City's demand, and shall be bound by any judgment.

1.11 Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL	**SURETY**
Company: (Corp. Seal)	Company: (Corp. Seal)
Signature:_____	Signature:_____
Name and Title:_____	Name and Title:_____
Address:_____	Address:_____
_____	_____
_____	_____

END OF DOCUMENT

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DOCUMENT 00 6113.16

CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

1.01 THAT WHEREAS, City of Berkeley ("City") has awarded to **Contractor's Name** as Principal, Specification No. **26-11762-C** dated the _____ day of _____, 20__ (the "Contract"), titled 1947 Center St. Window Replacement Project in the amount of **$X,XXX,XXX.XX**, which Contract is by this reference made a part hereof, for the work of the following Contract:

(**Describe Contract Work)** _____

1.02 AND WHEREAS, Principal is required to furnish a bond in connection with the Contract to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

1.03 NOW, THEREFORE, we, the undersigned Principal and **(Name of Surety)** _____ , as Surety, are held and firmly bound unto City in the sum of 100% OF THE CONTRACT PRICE **($_____)**, for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1.04 THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its executors, administrators, successors, or assigns approved by City, or its subcontractors shall fail to pay any of the persons named in California Civil Code §3181, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, plus reasonable attorneys' fees, otherwise the above obligation shall become and be null and void.

1.05 This bond shall inure to the benefit of any of the persons named in California Civil Code §3181, as to give a right of action to such persons or their assigns in any suit brought upon this bond. The intent of this bond is to comply with the California Mechanic's Lien Law.

1.06 Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder.

1.07 Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with Contract; and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the other.

1.08 Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

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IN WITNESS WHEREOF, we have hereunto set our hands this ____ day of _____, 20___.

CONTRACTOR AS PRINCIPAL	**SURETY**
Company: (Corp. Seal)	Company: (Corp. Seal)
_____	_____
Signature	Signature
_____	_____
Name	Name
_____	_____
Title	Title
_____	_____
Street Address	Street Address
_____	_____
City, State, Zip Code	City, State, Zip Code

END OF DOCUMENT

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DOCUMENT 00 6290

ESCROW AGREEMENT FOR SECURITY DEPOSIT IN LIEU OF RETENTION

California Public Contract Code §22300

THIS ESCROW AGREEMENT ("Escrow Agreement") is made and entered into this _____ day of _____, 20___, by and between City of Berkeley ("City"), whose address is 2180 Milvia Street, Berkeley, California 94704, **Contractor's Name** ("Contractor"), whose place of business is located at **Contractor's Address** and _____ **(Name)**, as escrow agent **OR [ ] (Name of Bank)**_____, a state or federally chartered bank in the State of California, whose place of business is located at _____ _____ ("Escrow Agent").

For the consideration hereinafter set forth, City, Contractor and Escrow Agent agree as follows:

1. Pursuant to California Public Contract Code §22300, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by City pursuant to Contract Number _____ entered into between City and Contractor for 1947 Center St. Window Replacement Project located at **1947 Center St, Berkeley, CA 94704** in the amount of **$X,XXX,XXX.XX** dated _____, 20___ (the "Contract"). Alternatively, on written request of Contractor, City shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify City within ten calendar days of the deposit. The market value of the securities at the time of substitution shall be at least equal to the cash amount then required to be withheld as retention under terms of Contract between Owner and Contractor. Securities shall be held in name of _____, and shall designate Contractor as the beneficial owner.

2. City shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified in Paragraph 1 of this Document 00 6290.

3. When City makes payment(s) of retention earned directly to Escrow Agent, Escrow Agent shall hold said payment(s) for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when City pays Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of City. Such expenses and payment terms shall be determined by Owner, Contractor, and Escrow Agent.

5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to City.

6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from City to Escrow Agent that City consents to withdrawal of amount sought to be withdrawn by Contractor.

7. City shall have the right to draw upon the securities in event of default by Contractor. Upon seven (7) calendar days written notice to Escrow Agent from City of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by City.

8. Upon receipt of written notification from City certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract,

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Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

9. Escrow Agent shall rely on written notifications from City and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Document 00 6290 and City and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth.

10. Names of persons who are authorized to give written notice or to receive written notice on behalf of City and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

ON BEHALF OF CITY:

_____
Title

_____
Name

_____
Signature

_____
Address

_____
City/State/Zip Code

ON BEHALF OF CONTRACTOR:

_____
Title

_____
Name

_____
Signature

_____
Address

_____
City/State/Zip Code

ON BEHALF OF ESCROW AGENT:

_____
Title

_____
Name

_____
Signature

_____
Address

_____
City/State/Zip Code

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

CITY

_____

_____
Title

_____
Name

_____
Signature

CONTRACTOR

_____

_____
Title

_____
Name

_____
Signature

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ATTEST

_____
Signature

_____
Print Name

City Clerk

ESCROW AGENT

_____

_____
Title

_____
Print Name

_____
Signature

Pre-approved as to form:
CITY ATTORNEY
8/2016

At the time the Escrow Account is opened, City and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Document 00 6290.

END OF DOCUMENT

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DOCUMENT 00 6325

SUBSTITUTION REQUEST FORM

To: **[_____, Project Manager, City of Berkeley]**

[(____) ____-____]

PROJECT: **City's Specification No. :**	**Contractor:**

Substitution Request By:	Firm:

Transmittal Record	**Attn:**	**Firm:**	**Date Sent:**	**Date Rec'd:**	**Date Due:**
Contractor to City					
Contractor to Architect					
City / Architect to Consultant					
Architect to City Representative					
City Representative to Contractor					

We hereby submit for your consideration the following product instead of the specified item for the Project:

Section / Drawing	**Article**	**Specified Item**
Proposed Substitution:		

We have (a) attached manufacturer's literature, including complete technical data and laboratory test results, if applicable, (b) attached an explanation of why proposed substitution is a true equivalent to specified item, (c) included complete information on changes to Contract Documents that the proposed substitution will require for its proper installation, and (d) filled in the blanks below:

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Contractor to complete questions that follow and certifies to the accuracy of all answers:

A.	Does the substitution affect dimensions shown on Drawings? Yes __ / No __. If No, please explain proposed mitigation and why substitution is equivalent to originally specified item:
B.	Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? Yes __ / No __. If No, please state reasons explain why substitution is equivalent to originally specified item:
C.	What effect does the substitution have on other trades? No effect: __ / Some effect__. If substitution will affect other trades, please explain the effect and why substitution is equivalent to originally specified item:
D.	Will substitution cause change to Project Schedule, or to critical delivery dates? Add? Shorten? If the substitution will add to schedule dates or affect critical activities, please explain why substitution is equivalent to originally specified item:
E.	Please describe differences between proposed substitution and specified item? Please explain and identify any and all differences, and please explain why substitution is equivalent to originally specified item:
F.	What is the Cost Differential to Contractor in original specified item and proposed substitution including all mark-ups? [If substitution requested during bid period, skip this question.]
G.	Are Manufacturer's guarantees for the proposed item the same as for item specified? Yes ____; No____. If No, please explain why substitution is equivalent to originally specified item:

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H.	Contractor accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution? Yes __ / No __. If No, please state reasons and explain why substitution is equivalent to originally specified item:
I.	Contractor states that the function, appearance and quality are equivalent or superior to the specified item? Yes __ / No __. If No, please explain why substitution is equivalent to originally specified item:

We certify that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item, except as we may specifically state otherwise in this request.

Submitted by:_____ Signature: _____

Firm:_____ Date: _____

Address:_____ Phone/ Fax: _____

Remarks:_____

Consultant Response:	**City Representative Response:**
o Accepted o Not Accepted o Accepted As Noted o Received Too Late	o Accepted o Not Accepted o Accepted As Noted o Received Too Late
Remarks:_____	**Remarks:**_____
_____	_____
By:_____	**By:**_____

END OF DOCUMENT

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DOCUMENT 00 6530

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

[Public Contract Code § 7100]

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS ("Agreement and Release"), made and entered into this _____ day of _____, **20___**, by and between City of Berkeley ("City"), and **Contractor's Name**("Contractor"), whose place of business is at **Contractor's Address**.

RECITALS

A. City and Contractor entered into Contract Number **XXXXXX** (the "Contract") for construction of City **1947 Center St. Window Replacement Project** located at **1947 Center St, Berkeley, CA 94704**.

B. The Work under the Contract has been completed.

AGREEMENT

NOW THEREFORE, it is mutually agreed between City and Contractor as follows:

1. Contractor will not be assessed liquidated damages except as detailed below:

Original Contract Sum	$ _____
Modified Contract Sum	$ _____
Payment to Date	$ _____
Liquidated Damages	$ _____
Payment Due Contractor	$ _____

2. Subject to the provisions of this Agreement and Release, Owner will forthwith pay to Contractor the sum of [XXX Million Dollars and No Cents ($$X,XXX,XXX.XX)] under the Contract, less any amounts withheld under the Contract or represented by any Notice to Withhold Funds on file with City as of the date of such payment.

3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against City arising from the Contract, except for the claims described in Paragraph 4 of this Document 00 6530. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against City, and all if its agents, employees, consultants, inspectors, representatives, assignees and transferees, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530. Nothing in this Agreement and Release shall limit or modify Contractor's continuing obligations described in Paragraph 6 of this Document 00 6530.

4. The following claims submitted under Document 00 7200 (General Conditions), Article 12, are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release.

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[Insert information in Chart below, affix attachment if necessary]

CLAIM NO.	DATE SUBMITTED	DESCRIPTION OF CLAIM	AMOUNT OF CLAIM

5. Consistent with California Public Contract Code §7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 2 of this Document 00 6530, Contractor hereby releases and forever discharges City, and all of its agents, employees, consultants, inspectors, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.

6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.

7. Contractor shall immediately defend, indemnify and hold harmless City, any of the City's Representatives, Project Manager, and all of their agents, employees, consultants, inspectors, assignees and transferees, from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's suppliers and/or Subcontractors of any tier and/or any suppliers to them for any and all labor, materials, supplies and equipment used, or contemplated to be used in the performance of the Contract, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530.

8. Contractor hereby waives the provisions of California Civil Code §1542, which provide as follows:

> **A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.**

9. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling, or regulation, then such provision, or part thereof shall remain in force and effect only to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.

10. Contractor represents and warrants that it is the true and lawful owner of all claims and other matters released pursuant to this Agreement and Release, and that it has full right, title and authority to enter into this instrument. Each party represents and warrants that it has been represented by counsel of its own choosing in connection with this Agreement and Release.

11. All rights of City shall survive completion of the Work or termination of the Contract, and execution of this Agreement and Release.

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*** * * CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING * * ***

CITY

By: _____
Signature

Name: _____
Print

Its: _____
Title

ATTEST:

_____
Title

_____
Print

[CONTRACTOR]

By: _____
Signature

Name: _____
Print

Its: _____
Title

[CONTRACTOR]

By: _____
Signature

Name: _____
Print

Its: _____
Title

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Pre-approved as to form:
CITY ATTORNEY
8/2016

END OF DOCUMENT

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DOCUMENT 00 6536

GUARANTY

TO: The City of Berkeley ("City"), for construction of 1947 Center St. Window Replacement Project located at 1947 Center St, Berkeley, CA 94704.

The undersigned guarantees all construction performed on this Project and also guarantees all material and equipment incorporated therein.

Contractor hereby grants to City for a period of one year following the date of Final Acceptance of the Work completed, or such longer period specified in the Contract Documents, its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.

Neither final payment nor use nor occupancy of the Work performed by the Contractor shall constitute an acceptance of Work not done in accordance with this Guaranty or relieve Contractor of liability in respect to any express warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting therefrom, which shall appear within one year, or longer if specified, from the date of Final Acceptance of the Work completed.

If within one year after the date of Final Acceptance of the Work completed, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, any Work is found to be Defective, Contractor shall promptly, without cost to City and in accordance with City's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by City and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, City shall have all rights and remedies granted by law.

Inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be Defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the guaranty period.

All abbreviations and definitions of terms used in this Agreement shall have the meanings set forth in the Contract Documents.

The foregoing Guaranty is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor's duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guaranty and any warranty or obligation of the Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of the Contractor.

Date: _____, 20___

_____
Contractor's name

By: _____
Signature

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Print Name

Title

Street Address

City, State, Zip code

END OF DOCUMENT

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DOCUMENT 00 6580

CITY OF BERKELEY CONTRACTING POLICIES

Contractor shall comply with the City of Berkeley's adopted employment policies applying to City construction projects as described in Document 00 7317. The following certifications/forms shall be submitted in accordance with Document 00 2113 Instructions to Bidders:

- Memorandum of Understanding
- Workforce Composition Form
- Agreement for Change in Subcontractors
- Nuclear Free Zone Disclosure Form
- Oppressive States Compliance Statement
- Sanctuary City Compliance Certification
- Hardwood Disclosure Form
- ~~First Source Construction Agreement (for projects between $100,000 and $500,000)~~
- Community Workforce Agreement, Agreement to be Bound (for projects over $500,000)
- Right to Audit Form
- Certification Of Compliance With Equal Benefits Ordinance
- Taxpayer Identification Report
- Contractor's License
- City of Berkeley Business License

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CITY OF BERKELEY
MEMORANDUM OF UNDERSTANDING
(MOU)

1. The Contractor (and all Subcontractors) agree not to discriminate pursuant to City Ordinance No. 5876.

2. The Contractor agrees that he/she is also responsible for his/her Subcontractors' compliance with City of Berkeley Ordinance No. 5876.

3. For contracts over $100,000, the Contractor agrees to comply with Ordinance No. 5876 as applied to the First Source Program (see Section 8 of Ordinance 5876).

The Contractor agrees to submit periodic employment and wage reports to the City's Contract Compliance Officer upon reasonable request.

_____	_____
Contractor	City of Berkeley Contracts Compliance Officer Or his/her designee
_____	_____
Date	Date

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CITY OF BERKELEY
WORKFORCE COMPOSITION FORM FOR ALL CONSTRUCTION CONTRACTS

This form is to be completed and submitted prior to the Contract Compliance Conference. The Contractor and all Subcontractors who will do work valued at $3,000 or more are required to submit this form. Weekly payroll reports will be compared to this listing to monitor for compliance. A payroll printout or other listing of employees providing the same information will be accepted.

Name of Contractor/Subcontractor: _____

Project: _____

Name		Race*	Sex**	Trade/Craft	Basic Hourly Rate	Hire Date	Employees to be used on this job

* A=Asian or Pacific Islander
AI=American Indian
B=Afro American
C=Caucasian
H=Hispanic (Mexican, Puerto Rican, Spanish, Cuban, Chicano, Central or South American)
8/91

**M = Male
**F = Female

Signature: _____ Date: _____
Contractor/Subcontractor

Verified By: _____ Date: _____
City of Berkeley Contracts Compliance Officer or his/her designee

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CITY OF BERKELEY
AGREEMENT FOR CHANGE IN SUB-CONTRACTORS

I agree to use the Subcontractor(s) listed in the signed contract with the City of Berkeley. If it should become necessary to change Subcontractors, I will notify the Capital Projects Manager by completing the following information:

Current Subcontractor(s)	Alternate Subcontractors	Reason for Change	Date

Signed by:

Verified by:

Prime Contractor	Subcontractor	City of Berkeley Contracts Compliance Officer Or his/her designee
Date: _____	Date: _____	Date: _____

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CITY OF BERKELEY

NUCLEAR FREE ZONE DISCLOSURE FORM

I (we) certify that:

1. I am (we are) fully cognizant of any and all contracts held, products made or otherwise handled by this business entity, and of any such that are anticipated to be entered into, produced or handled for the duration of its contract(s) with the City of Berkeley. (To this end, this disclosure form may be signed by more than one individual, if a description of which type of contracts each individual is cognizant is attached.)

2. I (we) understand that Section 12.90.070 of the Nuclear Free Berkeley Act (Berkeley Municipal Code Ch. 12.90; Ordinance No. 5784-N.S.) prohibits the City of Berkeley from contracting with any person or business that knowingly engages in work for nuclear weapons.

3. I (we) understand the meaning of the following terms as set forth in Berkeley Municipal Code section 12.90.130:

"Work for nuclear weapons" is any work the purpose of which is the development, testing, production, maintenance or storage of nuclear weapons or the components of nuclear weapons; or any secret or classified research or evaluation of nuclear weapons; or any operation, management or administration of such work.

"Nuclear weapon" is any device, the intended explosion of which results from the energy released by reactions involving atomic nuclei, either fission or fusion or both. This definition of nuclear weapons includes the means of transporting, guiding, propelling or triggering the weapon if and only if such means is destroyed or rendered useless in the normal propelling, triggering, or detonation of the weapon.

"Component of a nuclear weapon" is any device, radioactive or non-radioactive, the primary intended function of which is to contribute to the operation of a nuclear weapon (or be a part of a nuclear weapon).

4. Neither this business entity nor its parent nor any of its subsidiaries engages in work for nuclear weapons or anticipates entering into such work for the duration of its contract(s) with the City of Berkeley.

I (we) declare under penalty of perjury of the laws of the State of California that the foregoing is true and correct.

Signed: _____ Date: _____

Printed Name and Title(s): _____

Company: _____

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CITY OF BERKELEY

Oppressive States Compliance Statement for Personal Services

The undersigned, an authorized agent of_____(hereafter "Vendor"), has had an opportunity to review the requirements of Berkeley City Council Resolution Nos. 59,853-N.S., 60,382-N.S., and 70,606-N.S., (hereafter "Resolutions"). Vendor understands and agrees that the City may choose with whom it will maintain business relations and may refrain from contracting with those Business Entities which maintain business relationships with morally repugnant regimes. Vendor understands the meaning of the following terms used in the Resolutions:

"Business Entity" means "any individual, firm, partnership, corporation, association or any other commercial organization, including parent-entities and wholly-owned subsidiaries" (to the extent that their operations are related to the purpose of the contract with the City).

"Oppressive State" means: **Tibet Autonomous Region, the provinces of Ado, Kham, and U-Tsang; and Burma (Myanmar)**

“Personal Services” means “the performance of any work or labor and shall also include acting as an independent contractor or providing any consulting advice or assistance, or otherwise acting as an agent pursuant to a contractual relationship.”

Contractor understands that it is not eligible to receive or retain a City contract if at the time the contract is executed, or at any time during the term of the contract it provides Personal Services to:

a. The governing regime in any Oppressive State.
b. Any business or corporation organized under the authority of the governing regime of any Oppressive State.
c. Any person for the express purpose of assisting in business operations or trading with any public or private entity located in any Oppressive State.

Vendor further understands and agrees that Vendor's failure to comply with the Resolution shall constitute a default of the contract and the City Manager may terminate the contract and bar Vendor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

The undersigned is familiar with, or has made a reasonable effort to become familiar with, Vendor's business structure and the geographic extent of its operations. By executing the Statement, Vendor certifies that it complies with the requirements of the Resolution and that if any time during the term of the contract it ceases to comply, Vendor will promptly notify the City Manager in writing.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Printed Name: _____Title:_____

Signature: _____ Date:_____

Business Entity: _____

I am unable to execute this Statement; however, Vendor is exempt under Section VII of the Resolution. I have attached a separate statement explaining the reason(s) Vendor cannot comply and the basis for any requested exemption.

Signature: _____ Date:_____

Contract Description/Specification No.:_____

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ATTACHMENT D

Rev. 1/1/2023

CITY OF BERKELEY
Sanctuary City Compliance Statement

The undersigned, an authorized agent of _____(hereafter "Contractor"), has had an opportunity to review the requirements of Berkeley Code Chapter 13.105 (hereafter "Sanctuary City Contracting Ordinance" or "SCCO"). Contractor understands and agrees that the City may choose with whom it will maintain business relations and may refrain from contracting with any person or entity that provides Data Broker or Extreme Vetting services to the U.S. Immigration and Customs Enforcement Division of the United States Department of Homeland Security ("ICE"). Contractor understands the meaning of the following terms used in the SCCO:

a. "Data Broker" means either of the following:

   i. The collection of information, including personal information about consumers, from a wide variety of sources for the purposes of reselling such information to their customers, which include both private-sector business and government agencies;

   ii. The aggregation of data that was collected for another purpose from that for which it is ultimately used.

b. "Extreme Vetting" means data mining, threat modeling, predictive risk analysis, or other similar services." Extreme Vetting does not include:

   i. The City's computer-network health and performance tools;

   ii. Cybersecurity capabilities, technologies and systems used by the City of Berkeley Department of Information Technology to predict, monitor for, prevent, and protect technology infrastructure and systems owned and operated by the City of Berkeley from potential cybersecurity events and cyber-forensic based investigations and prosecutions of illegal computer based activity.

Contractor understands that it is not eligible to receive or retain a City contract if at the time the Contract is executed, or at any time during the term of the Contract, it provides Data Broker or Extreme Vetting services to ICE.

Contractor further understands and agrees that Contractor's failure to comply with the SCCO shall constitute a material default of the Contract and the City Manager may terminate the Contract and bar Contractor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

By executing this Statement, Contractor certifies that it complies with the requirements of the SCCO and that if any time during the term of the Contract it ceases to comply, Contractor will promptly notify the City Manager in writing. Any person or entity who knowingly or willingly supplies false information in violation of the SCCO shall be guilty of a misdemeanor and up to a $1,000 fine.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this _____day of ____, 20__, at _____, California.

Printed Name: _____Title:_____

Signed: _____Date:_____

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Business Entity: _____

SCCO CompStmt (Oct2019)

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

CITY OF BERKELEY

HARDWOOD DISCLOSURE FORM

For use by vendors on contracts utilizing lumber

1. I understand that on December 12, 1995, the City Council directed staff not to purchase lumber from companies that purchase or sell wood or paper products that come from tropical rainforests. I understand that wood species with tropical origins include, but are not limited to: Apitong, Banak, Bocote, Bubinga, Cocobolo, Cordia, Ebony, Goncalo alves, Greenheart, Iroko, Jelutang, Koa, Luauan, Mahogany, Meranti, Padauk, Purpleheart, Ramin, Rosewood, Satinwood, Teak, Virola, Wenge, and Zebrawood.

2. I am knowledgeable about the wood and paper products purchased and sold by this company.

3. This company does not currently purchase or sell wood or paper products having their origins in tropical rainforests. In addition, this company will not, for the duration of its contract with the City of Berkeley, purchase or sell wood or paper products having their origins in tropical rainforests.

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

Signed: _____ Date: _____

Printed Name & Title: _____

Company: _____

I am unable to sign this disclosure form for the following reason(s):

_____

_____

_____

_____

_____

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FIRST SOURCE CONSTRUCTION AGREEMENT

EXHIBIT "A"

First Source Construction Agreement

I certify that:

I. I am authorized to enter into this agreement on behalf of the company whose name appears below ("Contractor").

II. Contractor understands and agrees to comply with the City of Berkeley First Source Construction Agreement.

III. I choose Method One: check here _____

A. Contractor understands that selecting Method One agreement with the City of Berkeley means that
Contractor agrees as follows:

1. To utilize the First Source Program Construction Employment Program as the first place for recruitment and referral of applicants for new and replacement workers.

2. To allow the First Source Program a minimum of seventy-two (72) hours to refer applicants to Contractors. (Contractor may apply to the City of Berkeley for a waiver of the seventy-two hour requirement for an emergency situation.)

3. To employ qualified applicants referred by the First Source Program.

4. To fully document the reason(s) for not hiring persons referred by the First Source Program.

5. To provide to the First Source Program, upon request, information on the employment status of First Source Program placements, and reason for separation if employee is terminated.

B. Should the First Source Program be unable to provide the employees needed, Contractor or subcontractor is relieved of its obligation to achieve the goals of the First Source Program.

1. No documentation of "good Faith Effort Steps" would be required of Contractor and subcontractors

2. No penalty would be assessed.

C. Contractor must go back to the First Source Program whenever its employment needs increase, to comply with the First Source Program.

D. Should Contractor or a listed subcontractor fail to comply with the First Source Program, Contractor shall be liable for liquidated damages in the amount of $1,000 or 1% of the contract amount for each day of non-compliance. In addition, Contractor or listed subcontractor may be deemed a non-responsible bidder in connection with future City of Berkeley contracts.

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IV. I choose Method Two: check here _____

A. Should the contractor choose Method Two, Contractor can use any means of hiring Berkeley residents to achieve the goal. This also can include using union hiring halls requesting in writing for Berkeley residents. A copy must be sent to the First Source Program.

B. Should Contractor or subcontractor fail to achieve the goals at any time during the course of this project, Contractor or listed subcontractor will be required to document compliance with each of the "good Faith Effort Steps" listed in the First Source Program description document.

C. Should Contractor or a listed subcontractor fail to comply with the First Source Program, Contractor shall be liable for liquidated damages in the amount of $1,000 or 1% of the contract amount for each day of non-compliance. In addition, Contractor or listed subcontractor may be deemed a non-responsible bidder in connection with future City of Berkeley contracts.

_____	_____
Company Name	Owner/Authorized Representative Signature
_____	_____
Address	Printed Name of Owner / Authorized Representative
_____	
_____	_____
	Telephone Number

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AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project ("Project"), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Project's Community Workforce Agreement ("Agreement"), a copy which was received and is acknowledged, hereby:

1. Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement.

2. Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

3. Agrees to secure from any Contractor (as defined in said Agreement) which is or becomes a subcontractor (or any tier) to it, and from any successors, a duly executed Agreement to be Bound in form identical to this document.

4. Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft agreement contained in Schedule "A" of Agreement.

Date: _____

Company Name: _____

Name of Prime Contractor or Higher Level Subcontractor:

_____

Name of Project: _____

Signature: _____

Print Name: _____

Title: _____

Mailing Address: _____

Email Address: _____

Contractor's License #: _____

Motor Carrier Permit (CA) #: _____

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CITY OF BERKELEY
RIGHT TO AUDIT FORM

The Contractor agrees that pursuant to Section 61 of the Berkeley City Charter, the City Auditor's office may conduct an audit of Contractor's financial, performance and compliance records maintained in connection with the operations and services performed under this contract.

In the event of such audit, Contractor agrees to provide the Auditor with reasonable access to Contractor's employees and make all such financial, performance and compliance records available to the Auditor's office. City agrees to provide Contractor an opportunity to discuss and respond to any findings before a final audit report is filed.

Contractor's signature _____ Date: _____

Print Name and Title: _____

Company: _____

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To be completed by Contractor/Vendor

Form EBO-1
CITY OF BERKELEY
CERTIFICATION OF COMPLIANCE WITH EQUAL BENEFITS ORDINANCE

If you are a ***contractor***, return this form to the originating department/project manager. If you are a ***vendor*** (supplier of goods), return this form to the Purchasing Division of the Finance Dept.

SECTION 1. CONTRACTOR/VENDOR INFORMATION

Name:			Vendor No.:
Address:	City:	State:	ZIP:
Contact Person:		Telephone:	
E-mail Address:		Fax No.:	

SECTION 2. COMPLIANCE QUESTIONS

A. The EBO is inapplicable to this contract because the contractor/vendor has no employees.
☐ Yes ☐ No *(If "Yes," proceed to Section 5; if "No", continue to the next question.)*

B. Does your company provide (or make available at the employees' expense) any employee benefits?
☐ Yes ☐ No
If "Yes," continue to Question C.
If "No," proceed to Section 5. (The EBO is not applicable to you.)

C. Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee? ..... ☐ Yes ☐ No

D. Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee? ..... ☐ Yes ☐ No
If you answered "No" to both Questions C and D, proceed to Section 5. (The EBO is not applicable to this contract.)
If you answered "Yes" to both Questions C and D, please continue to Question E.
If you answered "Yes" to Question C and **"No"** to Question D, please continue to Section 3.

E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of the employee? ..... ☐ Yes ☐ No
If you answered "Yes," proceed to Section 4. (You are in compliance with the EBO.)
If you answered "No," continue to Section 3.

SECTION 3. PROVISIONAL COMPLIANCE

A. Contractor/vendor is not in compliance with the EBO now but will comply by the following date:

☐ By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor submits evidence of taking reasonable measures to comply with the EBO; or

☐ At such time that administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor's infrastructure, not to exceed three months; or

☐ Upon expiration of the contractor's current collective bargaining agreement(s).

B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent?* ..... ☐ Yes ☐ No

* The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.

SECTION 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statements, etc.) to verify that you do not discriminate in the provision of benefits.

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SECTION 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Berkeley Municipal Code and in the terms of the contract or purchase order with the City.

Executed this _____day of _____, in the year _____, at _____ (City), _____ (State)

_____ Name (please print)

_____ Signature

_____ Title

_____ Federal ID or Social Security Number

FOR CITY OF BERKELEY USE ONLY

☐ Non-Compliant (The City may not do business with this contractor/vendor)

☐ One-Person Contractor/Vendor ☐ Full Compliance ☐ Reasonable Measures

☐ Provisional Compliance Category, Full Compliance by Date: _____

Staff Name(*Sign and Print*): _____ Date: _____ _____

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TAXPAYER IDENTIFICATION REPORT

NAME/COMPANY'S NAME: _____

_____

MAILING ADDRESS: _____

_____

SOCIAL SECURITY NO.: _____

OR

EMPLOYER IDENTIFICATION NO.: _____

My Company is a Corporation [ ]

My Company is not a Corporation [ ]

I certify that the above information is true and correct:

_____ _____

(Signature) (Title)

The Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) requires the above reporting information be furnished to the City.

Persons who do not furnish their tax information numbers become subject to backup withholding by the City at a rate of 20% from each disbursement made to the recipient.

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DOCUMENT 007200

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GENERAL CONDITIONS

ARTICLE 1 – INTERPRETATION OF CONTRACT DOCUMENTS

1.01 Interpretation Of Documents

A. Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. Individual Contract Documents subdivide at first level into Articles, and then into paragraphs.

1.02 Order Of Precedence Of Documents

A. In the case of discrepancy or ambiguity in the Contract Documents, the following order of precedence shall prevail:
   1. Modifications in inverse chronological order (i.e., most recent first), and in the same order as specific portions they are modifying;
   2. Agreement Forms (Document 00 5200), and terms and conditions referenced therein;
   3. Supplementary General Conditions (Document 00 7201 et seq), if included;
   4. General Conditions (Document 00 7200);
   5. Division 1 Specifications, if included;
   6. Drawings and Technical Specifications (Division 2 and above);
   7. Written numbers over figures, unless obviously incorrect;
   8. Figured dimensions over scaled dimensions;
   9. Large-scale Drawings over small-scale Drawings.

B. Any conflict between Drawings and Technical Specifications (Division 2 and above) will be resolved in favor of the document of the latest date (i.e., the most recent document), and if the dates are the same or not determinable, then in favor of Specifications.

C. Any conflict between a bill or list of materials shown in the Contract Documents and the actual quantities required to complete Work required by Contract Documents, will be resolved in favor of the actual quantities.

D. All Technical Specifications included in the Project manual shall be included within the Contract Documents unless identified otherwise.

ARTICLE 2 – PRE-BID INVESTIGATIONS

2.01 Pre-Bid Investigations Required

A. Prior to and as a condition of submitting a Bid and executing Document 00 5200 (Agreement), Contractor shall make reasonable efforts to investigate fully the Work of the Contract. Contractor shall visit the Site, examine thoroughly and understand fully the nature and extent of the Contract Documents, Work, Site, locality, actual conditions and as-built conditions.

B. Contractor's investigation shall include, without limitation, requesting and thoroughly examining of all reports of exploration and tests of subsurface conditions, as-built drawings, drawings, product specification(s) or reports, made available by City for contracting purposes or during Contractor's pre-bid investigations, of existing above ground and (to the extent applicable) below ground conditions (together, "Existing Conditions Data"), including, as applicable, Underground Facilities, geotechnical data, as-built data, utility surveys, record documents of all types, hazardous materials surveys, or similar materials which may appear or be referenced in the Project Manual or the in the Contract Documents, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.

C. Contractor's investigations shall consider fully the fact that Existing Conditions Data is in many cases based on information furnished to City by others (e.g., the prior owner or builders), and that due to their age or their chain of custody since preparation, may not meet current industry standards for accuracy. Contractor shall also: (i.) provide City with prompt written notice of all

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conflicts, errors, ambiguities, or discrepancies of any type, that it discovered in or among the Contract Documents and the Existing Conditions Data, and (ii.) subject to City's approval, conduct any such additional or supplementary examinations, investigations, explorations, tests, studies and data compilations, concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which Contractor may deem necessary in order to perform and furnish the Work in accordance with the terms and conditions of Contract Documents.

D. During performance of the Contract, Contractor will be charged with knowledge of all information that it should have learned in performing these pre-bid investigations and other obligations, and shall not be entitled to Change Orders (time or compensation) due to any information, error, inconsistency, omission, or conditions that Contractor should have known as a part of this Work. Contractor shall be responsible for the resultant losses, including, without limitation, the cost of correcting Defective Work.

2.02 Limited Reliance Permitted On City's Existing Conditions Data

A. Regarding aboveground and as-built conditions shown on the Contract Documents or supplied by City, such information has been compiled in good faith, however, City does not expressly or impliedly warrant or represent that such information is correctly shown or indicated, or otherwise complete for construction purposes. Contractor must independently verify such information as part of its pre-bid investigations, and where conditions are not reasonably verifiable or discrepancies are identified, bring such matters to City's attention through written question issued during the bid period. In executing Document 00 5200 (Agreement), Contractor shall rely on the results of its own independent investigation and shall not rely on City-supplied information regarding aboveground conditions and as-built conditions, and Contractor shall accept full responsibility for its verification work sufficient to complete the Work as intended.

B. Regarding subsurface conditions other than Underground Facilities shown on the Contract Documents or otherwise supplied by City, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated in the Contract Documents. City is not responsible for the completeness of any subsurface condition information, Contractor's conclusions or opinions drawn from any subsurface condition information, or subsurface conditions that are not specifically shown. (For example, City is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown.)

2.03 Pre-Bid Investigation Requirements For Excavation And Utilities Relocation Projects

A. As part of its pre-bid investigations for Projects involving excavation and/or relocation of existing utilities, Contractor shall make reasonable efforts to verify information regarding Underground Facilities, including but not limited to, requesting additional information or verification of information as necessary.

B. Because of the nature and location of City and the Project, the existence of Underground Facilities is deemed inherent in the Work of the Contract, as is the fact that Underground Facilities are not always accurately shown or completely shown on as-built records, both as to their depth and location. Contractor shall, therefore, take care to note the existence and potential existence of Underground Facilities, in particular, above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, chemical, hot water, and other similar items and utilities. Contractor shall carefully consider all supplied information, request additional information Contractor may deem necessary, and visually inspect the Site for above ground indications of Underground Facilities (such as, for example not by way of limitation, the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site). Contractor shall also consider local underground conditions and typical practices for Underground Facilities, either through its own direct knowledge or through its subcontractors, and fully consider this knowledge in assessing the existing information and the reasonableness of its reliance.

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ARTICLE 3 – SUBCONTRACTORS

3.01 Subcontractor Listing Law

A. Contractor shall comply with the Subcontractor Listing law, California Public Contract Code §§4101 et seq. Contractor shall not substitute any other person or firm in place of any Subcontractor listed in the Bid except as may be allowed by law.

B. Subcontractors shall not assign or transfer their subcontracts or permit them to be performed by any other contractor without City's written approval. At City's request, Contractor shall provide City with a complete copy of all executed subcontracts or final commercial agreements with Subcontractors and/or suppliers.

3.02 Subcontracts

A. Subcontract agreements shall preserve and protect the rights of City under the Contract Documents so that subcontracting will not prejudice such rights. To the extent of the Work to be performed by a Subcontractor, Contractor shall require the Subcontractor's written agreement (1) to be bound to the terms of Contract Documents and (2) to assume vis-à-vis Contractor all the obligations and responsibilities that Contractor assumes toward City under the Contract Documents. (These agreements include for example, and not by way of limitation, all warranties, claims procedures and rules governing submittals of all types to which Contractor is subject under the Contract Documents.)

B. Contractor shall provide for the assignment to City of all rights any Subcontractor (of any tier) may have against any manufacturer, supplier, or distributor for breach of warranties and guarantees relating to the Work performed by the Subcontractor under the Contract Documents. Subcontracts shall provide and acknowledge City as an intended third-party beneficiary of each subcontract and supply contract (of any tier).

ARTICLE 4 – DRAWINGS AND SPECIFICATIONS

4.01 Intent Of Drawings And Specifications

A. Contractor shall interpret words or phrases used to describe Work (including services), materials, or equipment that have well-known technical or construction industry or trade meaning in accordance with that meaning. Drawings' intent specifically includes the intent to depict construction that complies with all applicable laws, codes and standards.

B. As part of the "Work," Contractor shall provide all labor, materials, equipment, machinery, tools, facilities, services, employee training and testing, hoisting facilities, Shop Drawings, storage, testing, security, transportation, disposal, the securing of all necessary or required field dimensions, the cutting or patching of existing materials, notices, permits, documents, reports, agreements and any other items required or necessary to timely and fully complete Work described and the results intended by Contract Documents and, in particular, Drawings and Specifications. Divisions and Specification Sections and the identification on any Drawings shall not control Contractor in dividing Work among Subcontractors or suppliers or delineating the Work to be performed by any specific trade.

C. Contractor shall perform reasonably implied parts of Work as "incidental work" although absent from Drawings and Specifications. Incidental work includes any work not shown on Drawings or described in Specifications that is necessary or normally or customarily required as a part of the Work shown on Drawings or described in Specifications. Incidental work includes any work necessary or required to make each installation satisfactory, legally operable, functional, and consistent with the intent of Drawings and Specifications or the requirements of Contract Documents. Contractor shall perform incidental work without extra cost to City. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and the expense of incidental work shall be included in price Bid and Contract Sum.

4.02 Checking Of Drawings And Specifications

A. Before undertaking each part of Work, Contractor shall carefully study and compare Contract Documents and check and verify pertinent figures shown in the Contract Documents and all

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applicable field measurements. Contractor shall be responsible for any errors that might have been avoided by such comparison. Figures shown on Drawings shall be followed; Contractor shall not scale measurements. Contractor shall promptly report to City, in writing, any conflict, error, ambiguity or discrepancy that Contractor may discover. Contractor shall obtain a written interpretation or clarification from City before proceeding with any Work affected thereby. Contractor shall provide City with a follow-up correspondence every ten calendar days until it receives a satisfactory interpretation or clarification.

4.03 Interpretation Of Drawings And Specifications

A. A typical or representative detail on Drawings shall constitute the standard for workmanship and material throughout corresponding parts of Work. Where necessary, and where reasonably inferable from Drawings, Contractor shall adapt such representative detail for application to such corresponding parts of Work. The details of such adaptation shall be subject to prior approval by City. Repetitive features shown in outline on Drawings shall be in exact accordance with corresponding features completely shown.

B. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in Drawings and Specifications, or should Contractor have any questions or requests relating to Drawings or Specifications, Contractor shall refer the matter to City, in writing, with a copy to the Architect/Engineer. City will issue with reasonable promptness written responses, clarifications or interpretations as City may determine necessary, which shall be consistent with the intent of and be reasonably inferable from Contract Documents. Such written clarifications or interpretations shall be binding upon Contractor. If Contractor believes that a written response, clarification or interpretation justifies an adjustment in the Contract Sum or Contract Time, Contractor shall give City prompt written notice. If the parties are unable to agree to the amount or extent of the adjustment, if any, then Contractor shall perform the Work in conformance with City's response, clarification, or interpretation and may make a written claim for the adjustment as provided in Article 12.

C. The following general specifications shall apply wherever in the Specifications, or in any directions given by City in accordance with or supplementing Specifications, it is provided that Contractor shall furnish materials or manufactured articles or shall do Work for which no detailed specifications are shown. Materials or manufactured articles shall be of the best grade, in quality and workmanship, obtainable in the market from firms of established good reputation. If not ordinarily carried in stock, the materials or manufactured articles shall conform to industry standards for first class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work shall conform to the usual standards or codes, such as those cited herein, for first class work of the kind required. Contractor shall specify in writing to City the materials to be used or Work to be performed under this Paragraph ten Business Days prior to furnishing such materials or performing such Work.

4.04 Use Of Drawings And Specifications.

A. Drawings, Specifications and other Contract Documents were prepared for use for Work of Contract Documents only. No part of Contract Documents shall be used for any other construction or for any other purpose except with the written consent of City. Any unauthorized use of Contract Documents is prohibited and at the sole liability of the user.

ARTICLE 5 – COMMENCEMENT OF THE WORK

5.01 Submission Of Required Schedules

A. Contractor shall submit to City in draft for review and discussion at the Preconstruction Conference, and in final prior to the first payment application, the following schedules:
   1. Schedule of Values
   2. Progress Schedule, and
   3. Schedule of Submittals.

B. No progress payment shall be due or owing to Contractor until such schedules are submitted to and acceptable to City and/or Architect/Engineer as meeting the requirements of the Contract

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Documents. In City's sole discretion, City may elect to instead withhold a portion of any progress payment for unacceptable compliance with contract requirements for such schedules.

C. City's acceptance of Contractor's schedules will not create any duty of care or impose on City any responsibility for the sequencing, scheduling or progress of Work nor will it interfere with or relieve Contractor from Contractor's full responsibility therefore.

5.02 Commencement Date Of Contract Time

A. The Contract Time will commence to run on the 60th Day after the issuance of the Notice of Award or, if a Notice to Proceed is given, on the date indicated in the Notice to Proceed.

B. City may give a Notice to Proceed at any time within 60 calendar days after the Notice of Award. Contractor shall not do any Work at the Site prior to the date on which the Contract Time commences to run.

ARTICLE 6 – CONTRACTOR'S ORGANIZATION AND EQUIPMENT

6.01 Contractor's Legal Address

A. Address and facsimile number given in Contractor's Bid are hereby designated as Contractor's legal address and facsimile number. Contractor may change its legal address and facsimile number by notice in writing, delivered to City, which in conspicuous language advises City of a change in legal address or facsimile number, and which City accepts in writing. Delivery to Contractor's legal address or depositing in any post office or post office box regularly maintained by the United States Postal Service, in a wrapper with postage affixed, directed to Contractor at legal address, or of any drawings, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon Contractor. Facsimile to Contractor's designated facsimile number of any letter, memorandum, or other communication on standard or legal sized paper, with proof of facsimile transmission, shall be deemed legal and sufficient service thereof upon Contractor.

6.02 Contractor's Superintendents Or Forepersons

A. Contractor shall at all times be represented on Site by one or more superintendents or forepersons authorized and competent to receive and carry out any instructions that City may give, and shall be liable for faithful observance of instructions delivered to Contractor or to authorized representative or representatives on Site.

6.03 Proficiency In English

A. Supervisors, security guards, safety personnel and employees who have unescorted access to the Site shall possess proficiency in the English language in order to understand, receive and carry out oral and written communications or instructions relating to their job functions, including safety and security requirements.

6.04 Contractor's And Subcontractors' Employees

A. Contractor shall employ, and shall permit its Subcontractors to employ, only competent and skillful personnel to do Work. If City notifies Contractor that any of its employees, or any of its Subcontractors' employees on Work is incompetent, unfaithful, disorderly or profane, or fails to observe customary standards of conduct or refuses to carry out any provision of the Contract Documents, or uses threatening or abusive language to any person on Work representing City, or violates sanitary rules, or is otherwise unsatisfactory, and if City requests that such person be discharged from Work, then Contractor or its Subcontractor shall immediately discharge such person from Work and the discharged person shall not be re-employed on the Work except with consent of City.

6.05 Contractor's Use Of The Site

A. Contractor shall not make any arrangements with any person to permit occupancy or use of any land, structure or building within the limits of the Work, for any purpose whatsoever, either with or without compensation, in conflict with any agreement between City and any owner, former owner

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or tenant of such land, structure or buildings. Contractor may not occupy City-owned property outside the limit of the Work as indicated on the Drawings unless it obtains prior approval from City.

6.06 Contractor's Site Office

A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide a site office staffed by a resident project manager or job superintendent.

ARTICLE 7 – CITY'S ADMINISTRATION OF WORK

7.01 City's Representative(s)

A. City's Representative(s) will have limited authority to act on behalf of City as set forth in the Contract Documents.

B. Except as otherwise provided in these Contract Documents or subsequently identified in writing by City, City will issue all communications to Contractor through City's Representative, and Contractor shall issue all communications to City through City's Representative in a written document delivered to City.

C. Should any direct communications between Contractor and City's consultants, architects or engineers not identified in Article 2 of Document 00 5200 (Agreement) occur during field visits or by telephone, Contractor shall immediately confirm them in a written document copied to City.

7.02 City's Observation Of The Work

A. Work shall be performed under City's general observation and administration. Contractor shall comply with City's directions and instructions in accordance with the terms of Contract Documents, but nothing contained in these General Conditions shall be taken to relieve Contractor of any obligations or liabilities under the Contract Documents. City's failure to review or, upon review, failure to object to any aspect of Work reviewed, shall not be deemed a waiver or approval of any non-conforming aspect of Work.

B. Subject to those rights specifically reserved in the Contract Documents, City will not supervise, or direct, or have control over, or be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or Contractor's failure to comply with laws and regulations applicable to the furnishing or performance of Work. City will not be responsible for Contractor's failure to perform or furnish the Work in accordance with Contract Documents.

7.03 Architect/Engineer's Observation Of Work

A. City may engage an Architect/Engineer, an independent consultant or Project Manager (collectively for purposes of this Paragraph, "Project Manager/Architect") to assist in administering the Work. If so engaged, Project Manager/Architect will advise and consult with City, but will have authority to act on behalf of City only to extent provided in the Contract Documents or as set forth in writing by City. Project Manager/Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with Work. Project Manager/Architect will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors or their agents or employees, or any other persons performing Work.

B. Project Manager/Architect may review Contractor's Submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with design concept of Work and with information given in the Contract Documents.

C. Project Manager/Architect may visit the Site at intervals appropriate to stage of construction to become familiar generally with the progress and quality of Work and to determine in general if Work is proceeding in accordance with Contract Documents. Based on its observations, Project Manager/Architect may recommend to City that it disapproves or rejects Work that Project Manager/Architect believes to be Defective or will not produce a complete Project that conforms to Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by Contract Documents. City will also have authority

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to require special inspection or testing of Work, whether or not the Work is fabricated, installed or completed.

D. Project Manager/Architect may conduct inspections to recommend to City the dates that Contractor has achieved Substantial Completion and Final Acceptance, and will receive and forward to City for review written warranties and related documents required by Contract Documents.

7.04 Owner's And Architect/Engineer's Exercise Of Contract Responsibilities

A. City, Project Manager, Architect/Engineer and all City's representatives, in performing their duties and responsibilities under the Contract Documents, accept no duties, responsibilities or duty of care, nor may the same be implied or inferred, towards Contractor, any Subcontractor, sub-Subcontractor or supplier, except those set forth expressly in the Contract Documents.

7.05 City's Right Of Access To The Work

A. During performance of Work, City and its agents, consultants, and employees may at any time enter upon Work, shops or studios where any part of the Work may be in preparation, or factories where any materials for use in Work are being or are to be manufactured, and Contractor shall provide proper and safe facilities for this purpose, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as City's interests may require. Other contractors performing work for City may also enter upon Work for all purposes required by their respective contracts. Subject to the rights reserved in the Contract Documents, Contractor shall have sole care, custody, and control of the Site and its Work areas.

7.06 City's Right Of Separate Construction

A. City may perform with its own forces, construction or operations related to the Project, or the Site during Contractor's operations. City may also award separate contracts in connection with other portions of the Project or other construction or operations, on the Site or areas contiguous to the Site, under conditions similar to these Contract Documents, or may have utility owners perform other work.

B. Contractor shall adjust its schedule and fully coordinate with and shall afford all other contractors, utility districts and City (if City is performing work with its own forces), proper and safe access to the Site, and reasonable opportunity for the installation and storage of their materials. Contractor shall ensure that the execution of its Work properly connects and coordinates with others' work, do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work, and shall cooperate with them to facilitate the progress of the Work.

C. To the extent that any part of Contractor's Work is to interface with work performed or installed by other contractors or utility owners, Contractor shall inspect and measure the in-place work. Contractor shall promptly report to City in writing any defect in in-place work that will impede or increase the cost of Contractor's interface unless corrected.

ARTICLE 8 – CONTRACTOR'S PROSECUTION AND PROGRESS OF THE WORK

8.01 Contractor To Supervise The Work

A. Subject to those rights specifically reserved in the Contract Documents, Contractor shall supervise, direct, have control over, and be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, safety precautions and programs incident thereto, and compliance with laws and regulations applicable to the furnishing or performance of Work.

B. Contractor shall keep on the Site at all times during Work progress a competent resident Superintendent, who shall not be replaced without City's express written consent. The Superintendent shall be Contractor's representative at the Site and shall have complete authority to act on behalf of Contractor. All communications to and from the Superintendent shall be as binding as if given to or by Contractor.

C. Contractor shall supervise, inspect, and direct Work competently and efficiently, devoting the

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attention and applying such personal skills and expertise as may be required and necessary to perform Work in accordance with Contract Documents. Contractor shall be solely responsible for and have control and charge of construction means, methods, techniques, sequences and procedures, safety precautions and programs in connection with the Work. Contractor shall be responsible to see that the completed Work complies accurately with Contract Documents.

D. Contractor is fully responsible for Contractor's own acts and omissions. Contractor is responsible for all acts and omissions of its Subcontractors, suppliers, and other persons and organizations performing or furnishing any of the Work, labor, materials, or equipment under a direct or indirect contract with Contractor.

E. Contractor shall conduct monthly Contractor Safety Committee meetings, and weekly toolbox safety talks.

8.02 Contractor To Maintain Cost Data

A. Contractor shall maintain full and correct information as to the number of workers employed in connection with each subdivision of Work, the classification and rate of pay of each worker in form of certified payrolls, the cost to Contractor of each class of materials, tools and appliances used by Contractor in Work, and the amount of each class of materials used in each subdivision of Work. Contractor shall provide City with monthly summaries of this information. If Contractor maintains or is capable of generating summaries or reports comparing actual Project costs with Bid estimates or budgets, Contractor shall provide City with a copy of such report upon City's request.

B. Contractor shall maintain daily job reports recording all significant activity on the job, including the number of workers on Site, Work activities, problems encountered and delays. Contractor shall provide City with copies for each Day Contractor works on the Project, to be delivered to City either the same Day or the following morning before starting work at the Site. Contractor shall take pre-construction and monthly progress photographs of all areas of the Work. Contractor shall maintain copies of all correspondence with Subcontractors and records of meetings with Subcontractors.

C. City shall have the right to audit and copy Contractor's books and records of any type, nature or description relating to the Project (including but not limited to financial records reflecting in any way costs claimed on the Project), and to inspect the Site, including Contractor's trailer, or other job Site office, and this requirement shall be contained in the subcontracts of Subcontractors working on Site. By way of example, City shall have the right to inspect and obtain copies of all Contract Documents, planning and design documents, Bid proposal and negotiation documents, cost records and job cost variance reports, design modification proposals, value engineering or other cost reduction proposals, revisions made to the original design, job progress reports, photographs, and as-built drawings maintained by Contractor. City and any other applicable governmental entity shall have the right to inspect all information and documents maintained hereunder at any time during the Project and for a period of five years following Final Completion, in accordance with the provisions of Section 8546.7 of the California Government Code. This right of inspection shall not relieve Contractor of its duties and obligations under the Contract Documents. This right of inspection shall be specifically enforceable in a court of law, either independently or in conjunction with enforcement of any other rights in the Contract Documents.

8.03 Contractor To Supply Sufficient Workers And Materials

A. Unless otherwise required by City under the terms of Contract Documents, Contractor shall at all times keep on the Site materials and employ qualified workers sufficient to prosecute Work at a rate and in a sequence and manner necessary to complete Work within the Contract Time. This obligation shall remain in full force and effect notwithstanding disputes or claims of any type.

B. At any time during progress of Work should Contractor directly or indirectly (through Subcontractors) refuse, neglect, or be unable to supply sufficient materials or employ qualified workers to prosecute the Work as required, then City may require Contractor to accelerate the Work and/or furnish additional qualified workers or materials as City may consider necessary, at no cost to City. If Contractor does not comply with the notice within three Business Days of date of service thereof, City shall have the right (but not a duty) to provide materials and qualified

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workers to finish the Work or any affected portion of Work, as City may elect. City may, at its discretion, exclude Contractor from the Site, or portions of the Site or separate work elements during the time period that City exercises this right. City will deduct from moneys due or which may thereafter become due under the Contract Documents, the sums necessary to meet expenses thereby incurred and paid to persons supplying materials and doing Work. City will deduct from funds or appropriations set aside for purposes of Contract Documents the amount of such payments and charge them to Contractor as if paid to Contractor. Contractor shall remain liable for resulting delay, including liquidated damages and indemnification of City from claims of others.

C. Exercise by City of the rights conferred upon City in this subparagraph is entirely discretionary on the part of City. City shall have no duty or obligation to exercise the rights referred to in this subparagraph and its failure to exercise such rights shall not be deemed an approval of existing Work progress or a waiver or limitation of City's right to exercise such rights in other concurrent or future similar circumstances. (The rights conferred upon City under this subparagraph are, like all other such rights, cumulative to City's other rights under any provision of the Contract Documents.)

8.04 Contractor To Maintain Project Record Documents

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Contract Modifications, Change Orders, Work Directives, Force Account orders, and written interpretations and clarifications in good order and annotated to show all as-built changes made during construction. These Project Record Documents, together with all approved Samples and a counterpart of all approved Shop Drawings, shall be maintained and available to City for reference. Upon completion of the Work, Contractor shall deliver to City, the Project Record Documents, Samples and Shop Drawings and as-built drawings.

B. Throughout Contractor's performance of the Work of the Project, Contractor shall maintain construction records to include: shop drawings; product data/material data sheets; samples; submittal; purchases; materials; equipment; inspections; applicable handbooks; applicable codes and standards; maintenance and operating manuals and instructions; RFI Log; Submittal Log; other related documents and revisions which arise out of the Construction Contracts. Contractor shall maintain records of principal building layout lines, elevations for the bottom of footings, floor levels, and key site elevations (certified by a qualified surveyor or professional engineer). Contractor shall make all records available to City. At the completion of the Project, Contractor shall deliver all such records to the City to have a complete set of record as-built drawings.

8.05 Contractor To Not Disrupt City Operation

A. Contractor shall schedule and execute all Work in a manner that does not interfere with or disrupt City operations, including but not limited to, parking, utilities (electricity, gas, water), noise, access by employees and administration, access by vendors, physicians, patients and any other person or entity using City facilities or doing business with City. Contractor shall produce and supply coordination plans and requests to City, following City procedures, for all necessary interference of construction with City, which City will reasonably cooperate with.

8.06 Contractor To Provide Temporary Facilities And Controls

A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide all temporary utilities (including without limitation electricity, water, natural gas), lighting, heating, cooling and ventilating devices, telephone, sanitary facilities, barriers, fences and enclosures, tree and plant protection, fire protection, pollution, erosion, Storm Water Pollution Prevention controls, noise and traffic control, and any other necessary services required for construction, testing or completion of the Work.

ARTICLE 9 – WARRANTY, GUARANTY, AND INSPECTION OF WORK

9.01 Warranty And Guaranty

A. General Representations and Warranties: Contractor represents and warrants that it is and will

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be at all times fully qualified and capable of performing every Phase of the Work and to complete Work in accordance with the terms of Contract Documents. Contractor warrants that all construction services shall be performed in accordance with generally accepted professional standards of good and sound construction practices and all requirements of Contract Documents. Contractor warrants that Work, including but not limited to each item of materials and equipment incorporated therein, shall be new, of suitable grade of its respective kind for its intended use, and free from defects in design, engineering, materials, construction and workmanship. Contractor warrants that Work shall conform in all respects with all applicable requirements of federal, state and local laws, applicable construction codes and standards, licenses, and permits, Drawings and Specifications and all descriptions set forth therein, and all other requirements of Contract Documents. Contractor shall not be responsible, however, for the negligence of others in the specification of specific equipment, materials, design parameters and means or methods of construction where that is specifically shown and expressly required by Contract Documents.

B. Extended Guarantees: Any guarantee exceeding one year provided by the supplier or manufacturer of any equipment or materials used in the Project shall be extended for such term. Contractor expressly agrees to act as co-guarantor of such equipment and materials and shall supply City with all warranty and guarantee documents relative to equipment and materials incorporated in the Project and guaranteed by their suppliers or manufacturers.

C. Environmental and Toxics Warranty: The covenants, warranties and representations contained in this Paragraph are effective continuously during Contractor's Work on the Project and following cessation of labor for any reason including, but not limited to, Project completion. Contractor covenants, warrants and represents to City that:

1. To Contractor's knowledge after due inquiry, no lead or Asbestos-containing materials were installed or discovered in the Project at any time during Contractor's construction thereof. If any lead or Asbestos-containing materials were discovered, Contractor made immediate written disclosure to City.
2. To Contractor's knowledge after due inquiry, no electrical transformers, light fixtures with ballasts or other equipment containing PCBs are or were located on the Project at any time during Contractor's construction thereof.
3. To Contractor's knowledge after due inquiry, no storage tanks for gasoline or any other toxic substance are or were located on the Project at any time during Contractor's construction thereof. If any such materials were discovered, Contractor made immediate written disclosure to City.
4. Contractor's operations concerning the Project are and were not in violation of any applicable environmental federal, state, or local statute, law or regulation dealing with hazardous materials substances or toxic substances and no notice from any governmental body has been served upon Contractor claiming any violation of any such law, ordinance, code or regulation, or requiring or calling attention to the need for any Work, repairs, construction, alteration, or installation on or in connection with the Project in order to comply with any such laws, ordinances, codes, or regulations, with which Contractor has not complied. If there are any such notices with which Contractor has complied, Contractor shall provide City with copies thereof.

9.02 Inspection Of Work

A. Work and materials, and manufacture and preparation of materials, from beginning of construction until Final Completion and acceptance of Work, shall be subject to inspection and rejection by City, its agents, representatives or independent contractors retained by City to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and program so that they may comply therewith as applicable. Upon request or where specified, City shall be afforded access for inspection at the source of supply, manufacture or assembly of any item of material or equipment, with reasonable accommodations supplied for making such inspections.

B. Contractor shall furnish, in such quantities and sizes as may be required for proper examination and tests, Samples or test specimens of all materials to be used or offered for use in connection

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with Work. Contractor shall prepare Samples or test specimens at its expense and furnish them to City. Contractor shall submit all Samples in ample time to enable City to make any necessary tests, examinations, or analyses before the time it is desired to incorporate the material into the Work.

C. Contractor shall give City timely notice of readiness of Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

D. If applicable laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, and furnish City with the required certificates of inspection, or approval. City will pay the cost of initial testing and Contractor shall pay all costs in connection with any follow-up or additional testing. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

E. If Contractor covers any Work, or the work of others, prior to any required inspection, test or approval without written approval of City, Contractor shall uncover the Work at City's request. Contractor shall bear the expense of uncovering Work and replacing Work. In any case where Contractor covers Work contrary to City's request, Contractor shall uncover Work for City's observation or inspection at City's request. Contractor shall bear the cost of uncovering Work.

F. Whenever required by City, Contractor shall furnish tools, labor and materials necessary to make examination of Work that may be completed or in progress, even to extent of uncovering or taking down portions of finished Work. Should Work be found unsatisfactory, cost of making examination and of reconstruction shall be borne by Contractor. If Work is found to be satisfactory, City, in manner herein prescribed for paying for alterations, Modifications, and extra Work, except as otherwise herein specified, will pay for examination.

G. Inspection of the Work by or on behalf of City, or City's failure to do so, shall not under any circumstances be deemed a waiver or approval of any non-conforming aspect of the Work. Contractor shall have an absolute duty, in the absence of a written Change Order signed by City, to perform Work in conformance with the Contract Documents and to immediately correct Defective Work immediately upon Contractor's knowledge.

H. Any inspection, evaluation, or test performed by or on behalf of City relating to the Work is solely for the benefit of City, and shall not be relied upon by Contractor. Contractor shall not be relieved of the obligation to perform Work in accordance with the Contract Documents, nor relieved of any guaranty, warranty, or other obligation, as a result of any inspections, evaluations, or tests performed by City, whether or not such inspections, evaluations, or tests are permitted or required under the Contract Documents. Contractor shall be solely responsible for testing and inspecting Work already performed to determine whether such Work is in proper condition to receive later Work.

9.03 Correction Of Defective Work

A. City may direct Contractor to correct any Defective Work or remove it from the Site and replace it with Work that is not Defective and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the correction or removal. Contractor shall be responsible for any and all claims, costs, losses and damages caused by or resulting from such correction or removal. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, City may decide the proper amount or, in its discretion may elect to leave the Contract Sum unchanged and deduct from monies due Contractor, all such claims, costs, losses and damages caused by or resulting from the correction or removal. If Contractor disagrees with City's calculations, it may make a claim as provided in Article 12 of this Document 00 7200. City's rights under this Paragraph shall be in addition to any other rights it may have under the Contract Documents or by law.

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B. If Contractor fails to supply sufficient skilled workers, suitable materials or equipment, or to furnish or perform the Work in such a way that the completed Work will conform to Contract Documents, City may order Contractor to replace any such Defective Work, or stop any portion of Work to permit City (at Contractor's expense) to replace such Defective Work. These City rights are entirely discretionary on the part of City, and shall not give rise to any duty on the part of City to exercise the rights for the benefit of Contractor or any other party.

9.04 Acceptance And Correction Of Defective Work By City

A. City may in its sole discretion elect to accept Defective Work. Contractor shall pay all claims, costs, losses and damages attributable to City's evaluation of and determination to accept such Defective Work. If City accepts any Defective Work prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, City may deduct from monies due Contractor, all claims, costs, losses, damages, expenses and liabilities attributable to the Defective Work. If Contractor disagrees with City's calculations, Contractor may make a claim as provided in Article 12 of this Document 00 7200. If City accepts any Defective Work after final payment, Contractor shall pay to City, an appropriate amount as determined by City.

B. City may correct and remedy deficiency if, after five calendar days' written notice to Contractor, Contractor fails to correct Defective Work or to remove and replace rejected Work; or provide a plan for correction of Defective Work acceptable to City; or perform Work in accordance with Contract Documents. In connection with such corrective and remedial action, City may exclude Contractor from all or part of the Site; take possession of all or part of Work and suspend Contractor's Work related thereto; take possession of all or part of Contractor's tools, appliances, construction equipment and machinery at the Site; and incorporate in Work any materials and equipment stored at the Site or for which City has paid Contractor but which are stored elsewhere. Contractor shall allow City, its representatives, agents, employees, and other contractors and Project Manager/Architect's consultants' access to the Site to enable City to exercise the rights and remedies under this Paragraph. Contractor shall be responsible for all claims, costs, losses, damages, expenses and liabilities incurred or sustained by City in exercising such rights and remedies. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, City may deduct from moneys due Contractor, all claims, costs, losses and damages caused by or resulting from the correction or removal. If Contractor disagrees with City's calculations, Contractor may make a claim as provided in Article 12.

9.05 Rights Upon Inspection, Correction Or Acceptance

A. Contractor shall not be allowed an extension of Contract Time because of any delay in the performance of Work attributable to the exercise by City of its rights and remedies under this Article. Where City exercises its rights under this Article, it retains and may still exercise all other rights it has by law or under the Contract Documents including, but not limited to, the right to terminate Contractor's right to proceed with the Work under the Contract Documents for cause and/or make a claim or back charge where a Change Order cannot be agreed upon.

B. Inspection by City or its authorized agents or representatives shall not relieve Contractor of its obligation to have furnished material and workmanship in accordance with Contract Documents. Payment for Work completed through periodic progress payments, final payment or otherwise shall not operate to waive City's right to require full compliance with Contract Documents and shall in no way be deemed as acceptance of any defective Work paid therefor. Contractor's obligation to complete the Work in accordance with Contract Documents shall be absolute, unless City agrees otherwise in writing.

9.06 Proof Of Compliance Of Contract Provisions

A. In order that City may determine whether Contractor has complied or is complying with requirements of Contract Documents not readily enforceable through inspection and tests of

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Work and materials, Contractor shall at any time, when requested, submit to City properly authenticated documents or other satisfactory proofs of compliance with all applicable requirements.

B. Before commencing any portion of Work, Contractor shall inform City in writing as to time and place at which Contractor wishes to commence Work, and nature of Work to be done, in order that proper provision for inspection of Work may occur, and to assure measurements necessary for record and payment. Information shall be given to City a reasonable time in advance of time at which Contractor proposes to begin Work, so that City may complete necessary preliminary work without inconvenience or delay to Contractor.

9.07 Correction Period And Project Warranty Period:

A. If within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by laws, regulations or by the terms of Contract Documents or any extended warranty or guaranty, any Work (completed or incomplete) is found to be Defective, Contractor shall promptly without cost to City and in accordance with City's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by City and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, City shall have all rights and remedies granted by law.

B. In special circumstances where a part of the Work is occupied or a particular item of equipment is placed in continuous service before Final Acceptance of all the Work, the correction period for that part of Work or that item may start to run from an earlier date if so provided by Change Order.

C. Where Defective Work or rejected Work (and damage to other Work resulting therefrom) has been corrected, removed, or replaced under this provision after the commencement of the correction period, the correction period hereunder with respect to such Work shall be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

9.08 No Waiver

A. Neither recordation of Final Acceptance nor final certificate for payment nor provision of the Contract nor partial or entire use or occupancy of premises by City shall constitute acceptance of Work not done in accordance with Contract Documents nor relieve Contractor of liability in respect to express warranties or responsibility for faulty materials or workmanship.

B. If, after installation, operation, or use of materials or equipment to be provided under Contract proves to be unsatisfactory to City, City shall have right to operate and use materials or equipment until said materials and equipment can, without damage to City, be taken out of service for correction or replacement. Period of use of Defective materials or equipment pending correction or replacement shall in no way decrease guarantee period required for acceptable corrected or replaced items of materials or equipment.

C. Nothing in the Contract Documents shall be construed to limit, relieve, or release Contractor's, Subcontractors', and equipment suppliers' liability to City for damages sustained as result of latent defects in materials or equipment caused by negligence of Contractor, its agents, suppliers, employees, or Subcontractors.

ARTICLE 10 – MODIFICATIONS OF CONTRACT DOCUMENTS

10.01 City's Right To Direct Changed Work.

A. City may, without notice to the sureties and without invalidating the Contract, make changes in the Work ("Changed Work"), including without limitation: alterations, deviations, additions to, or

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deletions from Contract Documents; increase or decrease the quantity of any item or portion of the Work; expand, reduce or otherwise change the Contract Time; delete any item or portion of the Work; and require extra Work. Contractor shall perform such Work under applicable provisions of the Contract Documents, unless specifically provided otherwise at the time the change is ordered. In the case of any ordered extra Work, City reserves the right to furnish all or portions of associated labor, material, and equipment, which Contractor shall accept and use without payment for costs, markup, profit, or otherwise for such City-furnished labor, materials, and equipment.

B. If Changed Work is of such a nature as to increase or decrease the time or cost of any part of Work, price fixed in Contract shall be increased or decreased by amount as the Contractor and City may agree upon as reasonable and proper allowance for increase or decrease in cost of Work using the cost guidelines set forth in this Article, and absent such agreement, then as City may direct (with Contractor retaining its rights under Article 12 herein).

10.02 Required Documentation For Changed Work

A. Changes affecting the Contract Time or Contract Sum of the Work shall be set forth in a written Change Order or Change Directive that shall specify:
   1. The Work performed in connection with the change to be made;
   2. The amount of the adjustment of the Contract Sum, if any, and the basis for compensation for the Work ordered; and
   3. The extent of the adjustment in the Contract Time, if any.

B. A Change Order or Change Directive will become effective when signed by City, notwithstanding that Contractor has not signed it. A Change Order will become effective without Contractor's signature, provided City indicates same thereon (by indicating it as a "unilateral change order").

C. All changes in any plans and specifications approved by any authority with jurisdiction may also require addenda or change orders approved by that authority.

D. Where City requests, a performance bond rider covering the changed Work must be executed and delivered to City before proceeding with the changed Work or shortly in time thereafter.

10.03 Procedures And Pricing Of Changed Work

A. Procedures for changed work and pricing of changed work, claims and all forms of extra compensation, are set forth in Section 01 2600 (Modification Procedures).

ARTICLE 11 – TIME ALLOWANCES

11.01 Time Allowances

A. Time is of the essence. Contract Time may only be changed by Change Order, and all time limits stated in the Contract Documents are to mean that time is of the essence.

11.02 Excusable Delay And Inexcusable Delay Defined.

A. Excusable Delay. Subject to the provisions on Notice of Delay below, Contract Time may be adjusted in an amount equal to the time lost due to:
   1. Changes in the Work ordered by City ("**Changes**");
   2. Acts or neglect by City, Architect, any City Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including but not limited to pre-bid investigations) ("**Acts or Neglect**"); or
   3. Fires, floods, epidemics, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, "force majeure events"), provided damages resulting therefrom are not the result of Contractor's failure to protect the Work as required by Contract Documents ("**Force Majeure**").

B. Inexcusable Delay. Contract Time shall not be extended for any period of time where Contractor (and/or any Subcontractor) is delayed or prevented from completing any part of the Work due to a

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cause that is within Contractor's risk or responsibility under the Contract Documents. Delays attributable to or within the control of a Subcontractor, or its subcontractors, or supplier, are deemed delays within the control of Contractor.

C. Float. Float shall be treated as a Project resource. Contractor shall not be entitled to a time extension for impacts that consume float, but do not impact the critical path.

11.03 Notice Of Delay

A. Within seven calendar days of the beginning of any delay (excepting adverse weather delays), Contractor shall notify City in writing, by submitting a notice of delay that shall describe the anticipated delays resulting from the delay event in question. If Contractor requests an extension of time, Contractor shall submit a Time Impact Evaluation (TIE) within ten calendar days of the notice of delay. City will determine all claims and adjustments in the Contract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this subparagraph. In cases of substantial compliance with the seven-day notice requirement here (but not to exceed twenty-one calendar days from the beginning of the delay event), City may in its sole discretion recognize a claim for delay accompanied with the proper TIE, provided Contractor also shows good faith and a manifest lack of prejudice to City from the late notice.

11.04 Compensable Time Extensions

A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Sum in addition to Contract Time for:
   1. Excusable delay caused solely by Changes in the Work ordered by City, as provided above, and/or
   2. Excusable delay caused solely by Acts or Neglect by City or other person, as provided above.

11.05 Non-Compensable Time Extensions

A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Time only, without adjustment in Contract Sum, for
   1. Periods of excusable delay caused solely by weather or Force Majeure events as provided above in this Article, or
   2. Periods of concurrent delay, where delay results from two or more causes, one of which is compensable (resulting from Changes or Acts or Neglect as set forth above in this Article), and the other of which is non-compensable or unexcusable, such as: acts or neglect of Contractor, Subcontractors or others for whom Contractor is responsible; other acts, omissions and conditions which would not entitle Contractor to adjustment in Contract Time; adverse weather; and/or actions of Force Majeure as provided above in this Article.

11.06 Adverse Weather

A. Adverse weather delays may be allowed only if the number of workdays of adverse weather exceeds the parameters listed or referenced immediately below in this subparagraph and Contractor proves that adverse weather actually caused delays to work on the critical path. Contractor shall give written notice of intent to claim an adverse weather day within one Day of the adverse weather day occurring.

B. Claims for extension of time for rain delay will not be granted unless the number of calendar days work is prevented by rain exceeds 110% of the average number of rain days expected for the period of the Contract Time, based on the records of the National Oceanic & Atmospheric Administration (NOAA) weather station closest to the Project Site, as measured and reported by NOAA. (For example, for California, Oregon and Washington, these figures are contained in the ">=0.10 inch" column at the applicable weather station's "General Climate Summary Table" for "Precipitation" at http://www.wrcc.dri.edu/Climsum.html), pro-rated in the individual month Contractor starts and finishes Work. Delays due to adverse weather conditions will not be allowed for weather conditions that fall within these parameters.

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C. In order to qualify as an adverse weather delay with respect to the foregoing parameters, (i.) daily rainfall must exceed .1 inch, and/or (ii.) daily snowfall must exceed 1.0 inch or more, at the NOAA station located closest to the Project site, as measured and reported by NOAA. Notwithstanding these allowances, Contractor shall at all times employ all available mitigation measures to enable Work to continue, Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, lime treatment, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for City to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.

D. Contractor shall include the foregoing precipitation parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by precipitation, Contractor shall notify City and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float available to either City or Contractor.

E. Adverse weather delay for precipitation shall be recognized for the actual period of time Contractor proves it was delayed by precipitation exceeding the specified parameters. For example, and not by way of limitation, if precipitation exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves to City's satisfaction that precipitation exceeding the specified parameters causes delay to Contractor for a period longer than the number of precipitation days incurred (e.g., if it rains or snows during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay.

F. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall employ best practices to protect the Work, manage the construction site and rainwater during inclement weather. Persons performing the Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to City representative and the Architect conditions detrimental to the Work. Failure to examine and report discrepancies makes the Contractor responsible, at no increase in Contract Sum, for corrections City may require. Commencement of Work constitutes acceptance of surface.

11.07 Liquidated Damages

A. Time is of the essence. Execution of Contract Documents by Contractor shall constitute its acknowledgement that City will actually sustain damages in the form of Contract administration expenses (such as Project management and consultant expenses) in the amount fixed in the Contract Documents for each and every Day during which completion of Work required is delayed beyond expiration of time fixed for completion plus extensions of time allowed pursuant to provisions hereof.

B. Contractor and City agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of such actual damages incurred by City because of a delay in completion of all or any part of the Work. Contractor and City agree that specified measures of liquidated damages shall be presumed to be the amount of such damages actually sustained by City, and that because of the nature of the Project, it would be impracticable or extremely difficult to fix the actual damages.

C. Liquidated damages for delay shall cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by City as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from City (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof. City may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages.

ARTICLE 12 – CLAIMS BY CONTRACTOR

12.01 Obligation to File Claims for Disputed Work

A. Should it appear to Contractor that the Work to be performed or any of the matters relative to the

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Contract Documents are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, or should any dispute arise regarding the true value of any work performed, work omitted, extra work that the Contractor may be required to perform, time extensions, payment to the Contractor during performance of this Contract, performance of the Contract, and/or compliance with Contract procedures, or should Contractor otherwise seek extra time or compensation FOR ANY REASON WHATSOEVER, then Contractor shall first follow procedures set forth in the Contract (including but not limited to other Articles of this Document 00 7200 and Section 01 2600.) If a dispute remains, then Contractor shall give written notice to City that expressly invokes this Article 12. City shall decide the issue in writing within 15 calendar days; and City's written decision shall be final and conclusive. If Contractor disagrees with City's decision, or if Contractor contends that City failed to provide a decision timely, then Contractor's SOLE AND EXCLUSIVE REMEDY is to promptly file a written claim setting forth Contractor's position as required herein.

12.02 Form And Contents Of Claim

A. Contractor's written claim must identify itself as a "Claim" under this Article 12 and must include the following: (1) a narrative of pertinent events; (2) citation to contract provisions; (3) theory of entitlement; (4) complete pricing of all cost impacts; (5) a time impact analysis of all time delays that shows actual time impact on the critical path; (6) documentation supporting items 1 through 5; a verification under penalty of perjury of the claim's accuracy. The Claim shall be submitted to City within thirty (30) calendar days of receiving City's written decision, or the date Contractor contends such decision was due, and shall be priced like a change order according to Section 01 2600, and must be updated monthly as to cost and entitlement if a continuing claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a claim. Contractor shall bear all costs incurred in the preparation and submission of a claim.

12.03 Administration During/After Claim Submission

A. City may render a final determination based on the Claim or may in its discretion conduct an administrative hearing on Contractor's claim, in which case Contractor shall appear, participate, answer questions and inquiries, and present any further evidence or analysis requested by City prior to rendering a final determination. Should City take no action on the Claim within 45 calendar days of submission, it shall be deemed denied.

B. Notwithstanding and pending the resolution of any claim or dispute, Contractor shall diligently prosecute the disputed work to final completion in accordance with City's determination.

C. After their submission, claims less than $375,000 shall also be subject to the Local Agency Disputes Act.

12.04 Compliance

A. The provisions of this Article 12 constitute a non-judicial claim settlement procedure that, pursuant to Section 930.2 of the California Government Code, shall constitute a condition precedent to submission of a valid Government Code Claim under the California Government Code. Contractor shall bear all costs incurred in the preparation, submission and administration of a claim. Any claims presented in accordance with the Government Code must affirmatively indicate Contractor's prior compliance with the claims procedure herein and the previous dispositions under Paragraph 12.3 above of the claims asserted. Pursuant to Government Code Section 930.2, the one-year period in Government Code section 911.2 shall be reduced to 150 calendar days from either accrual of the cause of action, substantial completion or termination of the contract, whichever occurs first; in all other respects, the Government Code shall apply unchanged.

B. Failure to submit and administer claims as required in Article 12 shall waive Contractor's right to claim on any specific issues not included in a timely submitted claim. Claim(s) or issue(s) not raised in a timely protest and timely claim submitted under this Article 12 may not be asserted in any subsequent litigation, Government Code Claim, or legal action.

C. City shall not be deemed to waive any provision under this Article 12, if at City's sole discretion, a

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claim is administered in a manner not in accord with this Article 12. Waivers or modifications of this Article 12 may only be made a signed change order approved as to form by legal counsel for both City and Contractor; oral or implied modifications shall be ineffective.

ARTICLE 13 – UNDERGROUND CONDITIONS

13.01 Contractor To Locate Underground Facilities.

A. During construction, Contractor shall comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part: "Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation."

B. Contractor shall contact USA, and schedule the Work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching work, Contractor shall provide City with copies of all USA records secured by Contractor. Contractor shall advise City of any conflict between information provided in Document 00 3132 (Geotechnical Data and Existing Conditions), the Drawings and that provided by USA records. Contractor's excavation shall be subject to and comply with the Contract Documents.

C. Contractor shall also investigate the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site, even if not shown or indicated in Document 00 3132 (Geotechnical Data and Existing Conditions), the Drawings or that provided by USA records. Contractor shall immediately secure all such available information and notify City and the utility owner, in writing, of its discovery.

13.02 Contractor To Protect Underground Facilities.

A. At all times during construction, all operating Underground Facilities shall remain in operation, unless the Contract Documents expressly indicate otherwise. Contractor shall maintain such Underground Facilities in service where appropriate; shall repair any damage to them caused by the Work; and shall incorporate them into the Work, including reasonable adjustments to the design location (including minor relocations) of the existing or new installations. Contractor shall take immediate action to restore any in service installations damaged by Contractor's operations.

B. Prior to performing Work at the Site, Contractor shall lay out the locations of Underground Facilities that are to remain in service and other significant known underground installations indicated by the Underground Facilities Data. Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, all such utilities or installations that are to remain and that are subject to damage. If additional utilities whose locations are unknown are discovered, Contractor shall immediately report to City for disposition of the same. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention, including reasonable action taken to protect or repair damage, shall be determined as provided in this Document 00 7200.

C. If during construction, an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the materials supplied by City for bidding or in information on file at USA or otherwise reasonably available to Contractor, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than seven calendar days), and prior to performing any Work in connection therewith (except in an emergency), identify the owner of such Underground Facility and give written notice to that owner and to City. During such time, Contractor shall be responsible for the

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safety and protection of such Underground Facility.

D. The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data including, but not limited to, information made available for bidding and information on file at USA; (b) locating all Underground Facilities shown or indicated in the Contract Documents, available information, or indicated by visual observation including, but not limited to, and by way of example only, engaging qualified locating services and all necessary backhoeing and potholing; (c) coordination of the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

E. Consistent with California Government Code §4215, as between City and Contractor, City will be responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Site only if such utilities are not identified in the Contract Documents or information made available for bidding. City will compensate for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, removing and relocating such main or trunk line utility facilities not indicated in the Contract Documents or information made available for bidding with reasonable accuracy, and equipment on the Project necessarily idled during such Work. Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of City or the utility to provide for removal or relocation of such utility facilities.

13.03 Concealed Or Unknown Conditions

A. If either of the following conditions is encountered at Site when digging trenches or other excavations that extend deeper than four feet below the surface, Contractor shall give a written Notice of Differing Site Conditions to City promptly before conditions are disturbed, except in an emergency as set forth in this Document 00 7200, and in no event later than seven calendar days after first observance of:

1. Subsurface or Latent physical conditions which differ materially from those indicated in the Contract Documents; or
2. Unknown physical conditions of an unusual nature or which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

B. In response to Contractor's Notice of Differing Site Conditions under this Paragraph, City will investigate the identified conditions, and if they differ materially and cause increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, City will negotiate the appropriate change order following the procedures set forth in the Contract Documents. If City determines that physical conditions at the Site are not Latent or are not materially different from those indicated in Contract Documents or that no change in terms of the Contract Documents is justified, City will so notify Contractor in writing, stating reasons (with Contractor retaining its rights under Article 12 of this Document 00 7200.)

C. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed Latent or materially different Site conditions (whether above or below grade) if Contractor knew or should have known of the existence of such conditions at the time Contractor submitted its Bid, failed to give proper notice, or relied upon information, conclusions, opinions or deductions of the kind that the Contract Documents preclude reliance upon.

D. Regarding Underground Facilities, Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that is owned and was built by City only where the Underground Facility:

1. Was not shown or indicated in the Contract Documents or in the information supplied for bidding purposes or in information on file at USA; and
2. Contractor did not know of it; and
3. Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as

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pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Sum or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in the Contract Documents, in the information supplied to Contractor for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor.)

E. Contractor shall bear the risk that Underground Facilities not owned or built by City may differ in nature or locations shown in information made available by City for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor. Underground Facilities are inherent in construction involving digging of trenches or other excavations on City's Project, and Contractor is to apply its skill and industry to verify the information available.

F. Contractor's compensation for claimed Latent or materially different Site conditions shall be limited to the actual, reasonable, incremental increase in cost of that portion of the Work, resulting from the claimed Latent or materially different Site conditions. Such calculation shall take into account the estimated value of that portion of the Work and the actual value of that portion of the Work, using for guidance Contractor's or its subcontractor's bid amount and actual amounts incurred for that portion of the Work and the reasonable expectation (if any) of differing or difficult site conditions in the Work area based on the available records and locale of the Work. For example, if Contractor excavates in an area unexpected, then such costs would be recoverable entirely; while if Contractor extends an existing excavation, then such costs would be recoverable if the resulting excavation costs in that work area exceeded the reasonable expectations therefore.

13.04 Notice Of Hazardous Waste Or Materials Conditions

A. Contractor shall give a written Notice of Hazardous Materials Condition to City promptly, before any of the following conditions are disturbed (except in an emergency as set forth in this Document 00 7200), and in no event later than 24 hours after first observance of any:

1. Material that Contractor believes may be hazardous waste or hazardous material, as defined in Section 25117 of the Health and Safety Code (including, without limitation, Asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material) that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law ("hazardous material"); or
2. Other material that may present an imminent substantial danger to persons or property exposed thereto in connection with Work at the Site ("other materials").

B. Except as otherwise provided in the Contract Documents or as provided by applicable law, Contractor shall not be required to give any notice for the disturbance or observation of any such hazardous materials or other materials where such matter is disturbed or observed as part of the scope of Work under the Contract Documents (such as hazardous waste or hazardous material investigation, remediation or disposal activities which are identified as the subject of Work under the Contract Documents), where Contractor complies with all requirements in the Contract Documents and applicable law respecting such materials.

C. Contractor's Notice of Hazardous Materials Condition shall indicate whether the hazardous materials or other materials were shown or indicated in the Contract Documents to be within the scope of Work, and whether the hazardous materials or other materials were brought to the Site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible.

D. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed hazardous waste or materials if:

1. Contractor knew of the existence of such hazardous materials or other materials at the time Contractor submitted its Bid; or
2. Contractor should have known of the existence of such hazardous material or other materials as a result of its having the responsibility to obtain additional or supplementary examinations, investigation, explorations, tests, studies, and data concerning the conditions at or contiguous to the Site prior to submitting its Bid; or
1. Contractor failed to give the written notice within the required timeframe set forth below.

E. If City determines that conditions involve hazardous materials or other materials and that a

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change in Contract Document terms is justified, City will issue either a Request for Proposal or Construction Change Directive under the procedures described in the Contract Documents. If City determines that conditions do not involve hazardous materials or other materials or that no change in Contract Document terms is justified, City will notify Contractor in writing, stating the reasons for its determination.

F. In addition to the parties' other rights under this Document 00 7200, if Contractor does not agree to resume Work based on a reasonable belief that it is unsafe, or does not agree to resume Work under special conditions, City may order the disputed portion of Work deleted from the Work, or performed by others, or City may invoke its right to terminate Contractor's right to proceed under the Contract Documents in whole or in part, for convenience or for cause as the facts may warrant.

G. If Contractor does not agree with any City determination of any adjustment in the Contract Sum or Contract Time under this Article, Contractor may make a claim as provided in Article 12 of this Document 00 7200.

ARTICLE 14 – LEGAL AND MISCELLANEOUS

14.01 Laws And Regulations

A. Contractor shall keep fully informed of and shall comply with all laws, ordinances, regulations and orders of any properly constituted authority affecting the Contract Documents, Work and persons connected with Work, and shall protect and indemnify City and its officers, employees, consultants and agents against any claim or liability, including attorney's fees, arising from or based on violation of law, ordinance, regulation or order, whether by Contractor or by Subcontractors, employees or agents. Authorized persons may at any time enter upon any part of Work to ascertain compliance of all applicable laws, ordinances, regulations and orders.

14.02 Permits And Taxes

A. Contractor shall procure all permits and licenses applicable to the Work (including environmental matters to the extent applicable); pay all charges and fees, including fees for street opening permits; comply with, implement and acknowledge effectiveness of all permits; initiate and cooperate in securing all required notifications or approvals therefore; and give all notices necessary and incident to due and lawful prosecution of Work, unless otherwise provided herein. City will pay applicable building permits, sanitation and water fees for the completed construction, except as otherwise provided in the Contract Documents. Contractor shall pay all sales and/or use taxes levied on materials, supplies, or equipment purchased and used on or incorporated into Work, and all other taxes properly assessed against equipment or other property used in connection with Work, without any increase in the Contract Sum. Contractor shall make necessary arrangements with proper authorities having jurisdiction over roads, streets, pipelines, navigable waterways, railroads, and other works in advance of operations, even where City may have already obtained permits for the Work.

14.03 Communications And Information Distribution

A. All communications recognized under the Contract Documents shall be in writing, in the form of a serialized document, by type of communication. For example, RFI's shall be serialized beginning with RFI No. 1; payment applications shall be serialized beginning with Payment Application No. 1, submittals shall be serialized per specification section and transmitted with transmittal sheets beginning with Transmittal No. 1; and correspondence shall be serialized beginning with letter No. 1. Contractor may propose other record management and identification systems or protocols, intended to facilitate orderly transmittal of project information, storage and retrieval of such information, which City will review consistent with these stated objectives, and accept or reject in its sole discretion.

B. Documents Requiring Signatures. All documents requiring signatures for approval prior to implementing action, as stipulated in other portions of Contract Documents, shall require a manually signed, serialized letter delivered to the other party at its address for notice otherwise specified in the Contract Documents, either personally or by mail.

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C. Electronic data transfer of such correspondence will serve to expedite preliminary concurrence of information, only. Receipt of “hard copy” signature on forms is required prior to implementing action or work as the conditions may require. For example, change orders and authorizations for extra cost, require signatures. A party may acknowledge receipt of PDF copies of required correspondence by e-mail, but in the absence of such acknowledgment, mail or personal delivery is required.

D. All emails shall be copied to City’s and Contractor’s Project Representative. City reserves the right to preclude e-mail communication, in whole or in part, as Project needs may require. Communication between City and Contractor shall not be via Twitter, Facebook, or other types of instant text message systems. Any such communications shall be inadmissible for any purpose related to this Contract.

14.04 Suspension Of Work

A. City may, without cause, order Contractor in writing to suspend, delay or interrupt Work in whole or in part for such period of time as City may determine. An adjustment shall be made for increases in cost of performance of Work of the Contract Documents caused by any such suspension, delay or interruption, calculated using the measures set forth in Section 01 2600 (Modification Procedures). No adjustment shall be made to extent that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible.

14.05 Termination Of Contract For Cause

A. The Contractor shall be in default of the Contract Documents and City may terminate the Contractor's right to proceed under the Contract Documents, for cause, in whole or in part, should the Contractor commit a material breach of the Contract Documents and not cure such breach within ten (10) calendar days of the date of notice from City to the Contractor demanding such cure; or, if such breach is curable but not curable within such ten (10) day period, within such period of time as is reasonably necessary to accomplish such cure. (In order for the Contractor to avail itself of a time period in excess of 10 calendar days, the Contractor must provide City within the ten (10) day period with a written plan acceptable to City that demonstrates actual resources, personnel and a schedule to promptly to cure said breach, and then diligently commence and continue such cure according to the written plan).

B. In the event of termination by City for cause as provided herein, the Contractor shall deliver to City possession of the Work in its then condition, including but not limited to, all designs, engineering, Project records, cost data of all types, plans and specifications and contracts with vendors and subcontractors, all other documentation associated with the Project, and all construction supplies and aids dedicated solely to performing the Work which, in the normal course of construction, would be consumed or only have salvage value at the end of the construction period. The Contractor shall remain fully liable for the failure of any Work completed and materials and equipment provided through the date of such termination to comply with the provisions of the Contract Documents. The provisions of this Section shall not be interpreted to diminish any right which City may have to claim and recover damages for any breach of the Contract Documents or otherwise, but rather, the Contractor shall compensate City for all loss, cost, damage, expense, and/or liability suffered by City as a result of such termination and/or failure to comply with the Contract Documents.

C. In the event a termination for cause is later determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience, and the Contractor shall have no greater rights than it would have had following a termination for convenience. Any Contractor claim arising out of a termination for cause shall be made in accord with Article 12 herein. No other loss, cost, damage, expense or liability may be claimed, requested or recovered by the Contractor.

14.06 Termination Of Contract For Convenience

A. City may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever City shall determine that termination is

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in City's best interest. Termination shall be effected by City delivering to the Contractor notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.

B. Contractor shall comply strictly with City's direction regarding the effective date of the termination, the extent of the termination, and shall stop work on the date and to the extent specified.

C. Contractor shall be entitled to a total payment on account of the Contract work so terminated measured by (i.) the actual cost to Contractor of Work actually performed, up to the date of the termination, with profit and overhead limited to twelve percent (12%) of actual cost of work performed, up to but not exceeding the actual contract value of the work completed as measured by the Schedule of Values and Progress Schedule, (ii.) offset by payments made and other contract credits. In connection with any such calculation, however, City shall retain all rights under the Contract Documents, including but not limited to claims, indemnities, or setoffs.

D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contract recover costs incurred after the date of the termination.

14.07 Contingent Assignment Of Subcontracts

A. Contractor hereby assigns to City each Subcontract for a portion of the Work, provided that:

1. The assignment is effective only after City's termination of Contractor's right to proceed under the Contract Documents (or portion thereof relating to that Subcontract) as set forth herein.
2. The assignment is effective only for the Subcontracts which City expressly accepts by notifying the Subcontractor in writing;
3. The assignment is subject to the prior rights, if any, of the Surety, obligated by Document 00 6113.13 (Construction Performance Bond) provided under the Contract Documents, where the Surety exercises its rights to complete the Contract;
4. After the effectiveness of an assignment, Contractor shall, at its sole cost and expense (except as otherwise provided in this Document 00 7200), sign all instruments and take all actions reasonably requested by City to evidence and confirm the effectiveness of the assignment in City; and
5. Nothing in this Paragraph shall modify or limit any of Contractor's obligations to City arising from acts or omissions occurring before the effectiveness of any Subcontract assignment, including but not limited to all defense, indemnity and hold-harmless obligations arising from or related to the assigned Subcontract.

14.08 Remedies And Contract Integration

A. Subject to Contract Documents provisions regarding Contractor claims, claim review, and claim resolution, and subject to the limitations therein, the exclusive jurisdiction and venue for resolving all claims, counter claims, disputes and other matters in question between City and Contractor arising out of or relating to Contract Documents, any breach thereof or the Project shall be the applicable court of competent jurisdiction located in the State and County where the Project is located. All City remedies provided in the Contract Documents shall be taken and construed as cumulative and not exclusive; that is, in addition to each and every other remedy herein provided; and in all instances City shall have any and all other equitable and legal rights and remedies which it would have according to law.

B. The Contract Documents, any Contract Modifications and Change Orders, shall represent the entire and integrated agreement between City and Contractor regarding the subject matters hereof and thereof and shall constitute the exclusive statement of the terms of the parties' agreement. The Contract Documents, and any Contract Modifications and Change Orders, shall supersede any and all prior negotiations, representations or agreements, written or oral, express or implied, that relate in any way to the subject matter of the Contract Documents or written Modifications. City and Contractor represent and agree that, except as otherwise expressly provided in the Contract Documents, they are entering into the Contract Documents and any subsequent written Modification in sole reliance upon the information set forth or referenced in the Contract Documents or Contract Modifications; the parties are not and will not rely on any other

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information, which shall be inadmissible in any proceeding to enforce these documents.

C. Either party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the Contract Documents at any time shall not in any way affect, limit, modify or waive that party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision hereof, any course of dealing or custom of the trade or oral representations notwithstanding.

D. Neither acceptance of the whole or any part of Work by City nor any verbal statements on behalf of City or its authorized agents or representatives shall operate as a waiver or modification of any provision of the Contract Documents, or of any power reserved to City herein nor any right to damages provided in the Contract Documents.

14.09 Interpretation.

A. Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).

B. Contract Documents shall not be construed to create a contractual relationship of any kind between (1) Project Manager or any City's representative and Contractor; (2) City and/or its Representatives and a Subcontractor, sub-Subcontractor, or supplier of any Project labor, materials, or equipment; or (3) between any persons or entities other than City and Contractor.

14.10 Patents

A. Fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with performance of the Work or any part thereof shall be included in the Bid price for doing the Work. Contractor shall defend, indemnify and hold harmless City and each of its officers, employees, consultants and agents, including, but not limited to, the Board and each City's Representative, from all damages, claims for damages, costs or expenses in law or equity, including attorney's fees, arising from or relating to any claim that any article supplied or to be supplied under the Contract Documents infringes on the patent rights, copyright, trade name, trademark, service mark, trade secret or other intellectual property right of any person or persons or that the person or entity supplying the article does not have a lawful right to sell the same. Such costs or expenses for which Contractor agrees to indemnify and hold harmless the above indemnities include but are not limited to any and all license fees, whether such fees are agreed by any indemnitee or ordered by a court or administrative body of any competent jurisdiction.

14.11 Substitution For Patented And Specified Articles

A. Except as noted specifically in the instructions to Bidders or in Contract Documents, whenever in Specifications, material or process is designated by patent or proprietary name or by name of manufacturer, such designation shall be deemed to be used for purpose of facilitating description of material and process desired, and shall be deemed to be followed by the words "or Approved Equal" and Contractor may offer any substitute material or process that Contractor considers "equal" in every respect to that so designated and if material or process offered by Contractor is, in opinion of City, Equal in every respect to that so designated, its use will be approved. However, Contractor may utilize this right only by timely submitting Document 00 6325 (Substitution Request Form) as provided in Document 00 2113 (Instructions to Bidders). A substitution will be approved only if it is a true "or equal" item in every aspect of its design and quality, including but not limited to its dimensions, weights, service requirements, durability, functioning, impact on contiguous construction elements, overall schedule and design.

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14.12 Interest Of Public Officers

A. No representative, officer, or employee of City no member of the governing body of the locality in which the Project is situated, no member of the locality in which City was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, during the tenure of the official or for one year thereafter, shall, as principal, agent, attorney or otherwise, be directly or indirectly interested, in the Contract Documents or the proceeds thereof.

14.13 Limit Of Liability

A. CITY, AND EACH OF ITS OFFICERS, BOARD MEMBERS, EMPLOYEES, CONSULTANTS AND AGENTS INCLUDING, BUT NOT LIMITED TO, PROJECT MANAGER AND EACH OTHER CITY REPRESENTATIVE, SHALL HAVE NO LIABILITY TO CONTRACTOR FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, EXCEPT TO THE LIMITED EXTENT THAT THESE CONTRACT DOCUMENTS OR APPLICABLE PUBLIC CONTRACTING STATUTES MAY SPECIFY THEIR RECOVERY.

ARTICLE 15 – WORKING CONDITIONS AND PREVAILING WAGES

15.01 Use Of Site/Sanitary Rules

A. All portions of the Work shall be maintained at all times in neat, clean and sanitary condition. Contractor shall furnish toilets for use of Contractor's and Subcontractors' employees on the Site where needed, and their use shall be strictly enforced. All toilets shall be properly secluded from public observation, and shall be located, constructed and maintained subject to City's approval.

B. Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Site and land areas identified in and permitted by Contract Documents and other land and areas permitted by applicable laws and regulations, rights of way, permits and easements or as designated by City, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, any improvement located thereon, or to City or occupant thereof resulting from the performance of Work.

C. During the progress of the Work, Contractor shall keep the Site and the Project free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall clean the site, remove all waste materials, rubbish and debris from and about the Site as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the premises clean and ready for occupancy by City at Substantial Completion of Work. Contractor shall restore to original condition all property not designated for alteration by Contract Documents.

D. Contractor shall not load nor permit any part of any structure or pavement to be loaded in any manner that will endanger the structure or pavement, nor shall Contractor subject any part of Work or adjacent property to stresses or pressures that will endanger it. Contractor shall conduct all necessary existing conditions investigation regarding structural, mechanical, electrical or any other system existing, shall perform Work consistent with such existing conditions, and shall have full responsibility for insufficiencies or damage resulting from insufficiencies of existing systems, equipment or structures to accommodate performing the Work.

15.02 Protection Of Work, Persons, And Property

A. Contractor shall be responsible for initiating, maintaining and supervising all safety and site security precautions and programs in connection with Work, and shall develop and implement a site security and safety plan throughout construction. Contractor shall comply with all safety requirements specified in any safety program established by City, or required by state, federal or local laws and ordinances. Contractor shall be responsible for all theft or damage to Work, property or structures, and all injuries to persons, either on the Site or constituting the Work (e.g., materials in transit), arising from the performance of Work of the Contract Documents from a cause.

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B. Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property.

C. Contractor shall remedy all damage, injury or loss to any property referred to above in this Article, caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, supplier, or any other person or organization directly or indirectly employed by any of them to perform or furnish any Work or anyone for whose acts any of them may be liable. Contractor's duties and responsibility for safety and for protection of Work shall continue until such time as all the Work is completed and Final Acceptance of the Work. City and its agents do not assume any responsibility for collecting any indemnity from any person or persons causing damage to Contractor's Work.

D. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

E. City may, at its option, retain such moneys due under the Contract Documents as City deems necessary until any and all suits or claims against Contractor for injury to persons or property shall be settled and City receives satisfactory evidence to that effect.

F. Work within the right-of-way lines of the city and/or City and/or State shall be done in accordance with the standards and specifications of the controlling agency. Permit for such work shall be obtained and paid for by the Contractor before executing the work within such right-of-ways.

15.03 Responsibility For Safety And Health

A. Contractor shall ensure that its and each tier of Subcontractors' employees, agents and invitees comply with applicable health and safety laws while at the Site. These laws include the Occupational Safety and Health Act of 1970 and rules and regulations issued pursuant thereto, and City's safety regulations as amended from time to time. Contractor shall comply with all City directions regarding protective clothing and gear.

B. Contractor shall be fully responsible for the safety of its and its Subcontractors' employees, agents and invitees on the Site. Contractor shall notify City, in writing, of the existence of hazardous conditions, property or equipment at the Site that are not under Contractor's control. Contractor shall be responsible for taking all the necessary precautions against injury to persons or damage to the property of Contractor, Subcontractors or persons from recognized hazards until the responsible party corrects the hazard.

C. Contractor shall confine all persons acting on its or its Subcontractors' behalf to that portion of the Site where Work under the Contract Documents is to be performed, City-designated routes for ingress and egress thereto, and any other City-designated area. Except those routes for ingress and egress over which Contractor has no right of control, within such areas, Contractor shall provide safe means of access to all places at which persons may at any time have occasion to be present.

15.04 Emergencies

A. In emergencies affecting the safety or protection of persons or Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from City, is obligated to act to prevent threat and damage, injury or loss, until directed otherwise by City. Contractor shall give City prompt written notice if Contractor believes that any significant changes in Work or variations from Contract Documents have been caused thereby. If City determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Change Order or Construction Change Directive will be issued to document the consequences of such action.

15.05 Use Of Roadways And Walkways

A. Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for

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vehicular or pedestrian traffic. Before beginning any interference and only with City's prior concurrence, Contractor may provide detour or temporary bridge for traffic to pass around or over the interference, which Contractor shall maintain in satisfactory condition as long as interference continues. Unless otherwise provided in the Contract Documents, Contractor shall bear the cost of these temporary facilities.

15.06 Nondiscrimination

A. No person or entity shall discriminate in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sexual preference, or gender of such persons, except as provided in Section 12940 of the California Government Code. Every contractor for public works violating the provisions of Section 1735 of the California Labor Code is subject to all the penalties imposed for a violation of Chapter 1, Part 7, Division 2 of the California Labor Code.

15.07 Prevailing Wages And Working Hours

A. Contractor shall pay to persons performing labor in and about Work provided for in the Contract Documents an amount equal to or more than the general prevailing rate of per diem wages for (1) work of a similar character in the locality in which the Work is performed and (2) legal holiday and overtime work in said locality. The per diem wages shall be an amount equal to or more than the stipulated rates contained in a schedule that has been ascertained and determined by the Director of the State Department of Industrial Relations and City to be the general prevailing rate of per diem wages for each craft or type of workman or mechanic needed to execute this Contract. Contractor shall also cause a copy of this determination of the prevailing rate of per diem wages to be posted at each Site.

B. Contractor shall forfeit, as a penalty to City, Fifty Dollars ($50.00) for each laborer, workman, or mechanic employed in performing labor in and about the Work provided for in the Contract Documents for each Day, or portion thereof, that such laborer, workman or mechanic is paid less than the said stipulated rates for any Work done under the Contract Documents by him or her or by any Subcontractor under him or her, in violation of Articles 1 and 2 of Chapter 1 of Part 7 of Division II of the California Labor Code. The sums and amounts which shall be forfeited pursuant to this Paragraph and the terms of the California Labor Code shall be withheld and retained from payments due to Contractor under the Contract Documents, pursuant to this Document 00 7200 and the California Labor Code, but no sum shall be so withheld, retained or forfeited except from the final payment without a full investigation by either the State Department of Industrial Relations or by City. The Labor Commissioner pursuant to California Labor Code §1775 shall determine the final amount of forfeiture.

C. Contractor shall insert in every subcontract or other arrangement which Contractor may make for performance of Work or labor on Work provided for in the Contract, provision that Subcontractor shall pay persons performing labor or rendering service under subcontract or other arrangement not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed in the California Labor Code.

D. Contractor stipulates that it shall comply with all applicable wage and hour laws, including without limitation, California Labor Code §§ 1776 and 1810-1815. Failure to so comply shall constitute a default under this Contract.

E. Contractor and its Subcontractors shall be responsible for compliance with Labor Code §§ 1810-1815.

1. Eight hours of labor performed in execution of the Contract constitutes a legal day's work. The time of service of any workman employed on the Project is limited and restricted to 8 hours during any one calendar day, and 40 hours during any one calendar week.
2. Contractor and its Subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him or her in connection with the Project. The record shall be kept open at all reasonable hours to the inspection City and to the Division of Labor Standards Enforcement.

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3. Contractor or its Subcontractors shall, as a penalty to City, forfeit twenty-five dollars ($25) for each worker employed in the execution of the Contract Documents by the respective Contractor or Subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Labor Code §§ 1810-1815.
4. Work performed on the Project by employees of Contractor or its Subcontractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than 1 1/2 times the basic rate of pay.

F. Contractor and its Subcontractors shall be responsible for compliance with Labor Code Section 1776.
1. Contractor and Subcontractors must keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the Work of the Contract Documents. Each payroll record shall contain or be verified by a written declaration as required by Labor Code Section 1776.
2. The payroll records enumerated above must be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor as required by Labor Code Section 1776.
   a. Contractor shall inform City of the location of records enumerated above, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
   b. Contractor or Subcontractor has 10 calendar days in which to comply subsequent to receipt of a written notice requesting the records enumerated above. In the event that the Contractor or Subcontractor fails to comply with the ten-day period, he or she shall, as a penalty to City on whose behalf the contract is made or awarded, forfeit $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. Contractor is not subject to a penalty assessment pursuant to this Paragraph due to the failure of a Subcontractor to comply with this Paragraph.
3. Contractor shall also deliver certified payrolls to City with each Application for Payment as set forth above in this Document 00 7200 (General Conditions).

15.08 Environmental Controls

A. Contractor shall comply with all rules, regulations, ordinances, and statutes that apply to any Work performed under the Contract Documents including, without limitation, any toxic, water, stormwater management and soil pollution controls and air pollution controls specified in California Government Code §11017. Contractor shall be responsible for insuring that Contractor's Employees, Subcontractors, and the public are protected from exposure to airborne hazards or contaminated water, soil, or other toxic materials used during or generated by activities on the Site or associated with the Project.

15.09 Shoring Safety Plan

A. Any conflict between this Paragraph and Division 2 of the Specifications shall be resolved in favor of the most stringent requirement.

B. At least five calendar days in advance of any excavation five feet or more in depth, Contractor shall submit to City a detailed plan showing the shoring, bracing and sloping design (including calculations) and other provisions to be made for worker protection from the hazard of caving ground during the excavation, as required by California Labor Code §6705. A civil or structural engineer registered in California shall prepare and sign any plan that varies from the shoring system standards established by the State Construction Safety Orders.

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C. During the course of Work, Contractor shall be responsible for determining where sloping, shoring, and/or bracing is necessary and the adequacy of the design, installation, and maintenance of all shoring and bracing for all excavation, including any excavation less than five feet in depth. Contractor will be solely responsible for any damage or injuries that may result from excavating or trenching. City's acceptance of any drawings showing the shoring or bracing design or Work schedule shall not relieve Contractor of its responsibilities under this Paragraph.

D. Appoint a qualified supervisory employee who shall be responsible to determine the sloping or shoring system to be used depending on local soil type, water table, stratification, depth, etc.

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DOCUMENT 00 7201

SUPPLEMENTAL GENERAL CONDITIONS

[OPTIONAL]

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DOCUMENT 00 7316

SUPPLEMENTARY CONDITIONS – INSURANCE AND INDEMNIFICATION

ARTICLE 1 – INSURANCE

1.01 At or before the date specified in Document 00 2113 (Instructions to Bidders), Contractor shall furnish to City of Berkeley ("City") satisfactory proof that Contractor has taken out for the entire period covered by the Contract the following classes of insurance in the form and with limits and deductibles specified below, unless otherwise specified in Contract Documents:

A. Comprehensive General Liability Insurance covering claims for personal injury, bodily injury and property damage arising out of the Work and in a form providing coverage not less than that of a Standard Commercial General Liability Insurance policy ("Occurrence Form"). Such insurance shall provide for all operations and include independent contractors, products liability, completed operations for one year after Final Completion and acceptance of the final payment for the Work, contractual liability, and coverage for explosion, collapse, and underground hazards. The limits of such insurance shall not be coverage of less than **$2,000,000** each occurrence, **$2,000,000** general aggregate limit, and **$2,000,000** aggregate for products and completed operations, with defense costs payable in addition to policy limits. The policies shall be endorsed to provide Broad Form Property Damage Coverage.

B. Comprehensive Automobile Liability Insurance covering all owned, non-owned, and hired vehicles. Such insurance shall provide coverage not less than the standard Comprehensive Automobile Liability policy with limits not less than **$2,000,000** each occurrence Bodily Injury, and **$2,000,000** each occurrence Property Damage.

C. All-Risk Course of Construction Insurance including damage to property owned by City, Contractor or third parties caused by fire. Insurance shall be in the amount of 100 percent of the completed value of the Work to be performed under this Contract. Deductible shall not exceed **$25,000**. Each loss shall be borne by Contractor.

D. Workers' Compensation Insurance for all persons whom the Contractor may employ in carrying out Work contemplated under Contract Documents, in accordance with the Act of Legislature of State of California, known as "Workers' Compensation Insurance and Safety Act," approved May 26, 1913, and all acts amendatory or supplemental thereto, in the statutory amount. Workers' Compensation Insurance is **$1,000,000** each accident, with defense cost payable in addition to policy limits.

E. Environmental Impairment Liability Insurance covering bodily injury and property damage utilizing an occurrence policy form, in an amount no less than **$1,000,000** combined single limit for each occurrence, subject to a **$1,000,000** aggregate applicable to each job, with defense costs payable in addition to policy limits. The minimum deductible or self-insured retention permissible is **$25,000** each occurrence.

1.02 All policies of insurance shall be placed with insurers acceptable to City. The insurance underwriter(s) for all insurance policies except Workers' Compensation shall have an A. M. Best Company rating of A-, VIII or better, unless otherwise specified in Contract Documents. Required minimum amounts of insurance may be increased should conditions of Work, in opinion of City, warrant such increase. Contractor shall increase required insurance amounts upon direction by City.

1.03 Required Endorsements: The policies required under Document 00 7200 (General Conditions) and this Document 00 7316 shall be endorsed as follows:

A. City of Berkeley, its officers, agents, volunteers, consultants, and employees shall be named as additional insureds, but only with respect to liability arising out of the activities of the named insured, and there shall be a waiver of subrogation as to each named and additional insured.

B. Each such policy shall apply separately to each insured against whom claim is made or suit is

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brought, except with respect to the limit of the insurance company's liability required hereunder. Should any of the policies identified herein contain a "cross-suits" exclusion, such exclusion must not apply to any additional insureds.

C. Written notice of cancellation or of any limits reduction change in said policy shall be mailed to the City thirty (30) calendar days in advance of the effective date thereof, and ten (10) calendar days written notice to the same in advance of payment of any insurance claims under such policies to any person, firm or entity.

D. Insurance shall be primary insurance and no other insurance or self-insured retention carried or held by any named or additional insureds shall be called upon to contribute to a loss covered by insurance for the named insured.

1.04 Written notice of cancellation, non-renewal, or reduction in coverage of any policy shall be mailed to City (Attention: Project Manager and the Construction Manager) at the address listed in Document 00 5200 (Agreement), 30 calendar days in advance of the effective date of the cancellation, non-renewal, or reduction in coverage. Written notice of cancellation for non-payment shall be mailed within 10 calendar days of cancellation.

1.05 Certificates of insurance and endorsements shall have clearly typed thereon City Specification Number, and Title of Project of Contract Documents. Contractor shall maintain insurance in full force and effect during entire period of performance of Contract Documents.

1.06 Contractor shall keep insurance in force during warranty and guarantee periods, except that Contractor may discontinue All-Risk Course of Construction Insurance after Final Payment. At time of making application for extension of time, and during all periods exceeding the Contract Time resulting from any cause, Contractor shall submit evidence that insurance policies will be in effect during requested additional period of time. Upon City's request, Contractor shall submit to City, within 30 calendar days, copies of the actual insurance policies or renewals or replacements.

1.07 Contractor shall pay all insurance premiums, including any charges for required waivers of subrogation or the endorsement of additional insureds. If Contractor fails to maintain insurance, City may take out comparable insurance, and deduct and retain amount of premium from any sums due Contractor under Contract Documents.

1.08 If injury occurs to any employee of Contractor, Subcontractor or sub-subcontractor for which the employee, or the employee's dependents in the event of employee's death, is entitled to compensation from City under provisions of the Workers' Compensation Insurance and Safety Act, as amended, or for which compensation is claimed from City, City may retain out of sums due Contractor under Contract Documents, amount sufficient to cover such compensation, as fixed by the Act, as amended, until such compensation is paid, or until it is determined that no compensation is due. If City is compelled to pay compensation, City may, in its discretion, either deduct and retain from the Contract Sum the amount so paid, or require Contractor to reimburse City.

1.09 Nothing herein shall be construed as limiting in any way the extent to which Contractor or any Subcontractor may be held responsible for payment of damages resulting from their operations.

1.10 All Subcontractors shall maintain the same insurance required to be maintained by Contractor with respect to their portions of the Work unless otherwise indicated in Contract Documents, and Contractor shall cause the Subcontractors to furnish proof thereof to City within ten calendar days of City's request.

1.11 The following provisions apply to any licensed professional engaged by Contractor to perform portions of the Work ("Professional").

A. Each Professional shall maintain the following insurance, unless otherwise specified in Contract Documents:

B. Professional Liability Insurance, insuring against professional errors and omissions arising from Professional's Work on the Project, in an amount not less than **$2,000,000** combined single limit for each occurrence. If Professional cannot provide an occurrence policy, Professional shall

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provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than two years following Final Completion of the Project.

C. Professional shall satisfy all other provisions of this Document 00 7316 relating to that insurance, including without limitation providing required insurance certificates (containing the required endorsements) before commencing its Work on the Project.

ARTICLE 2 – RESPONSIBILITY OF CONTRACTOR AND INDEMNIFICATION

2.01 City and each of its officers, employees, consultants and agents including, but not limited to, the Board, Project Manager and Construction Manager and each City's Representative, shall not be liable or accountable in any manner for loss or damage that may happen to any part of the Work; loss or damage to materials or other things used or employed in performing the Work; injury, sickness, disease, or death of any person; or damage to property resulting from any cause whatsoever except their sole negligence, willful misconduct or active negligence, attributable to performance or character of the Work, and Contractor releases all of the foregoing persons and entities from any and all such claims.

2.02 To the furthest extent permitted by law (including without limitation California Civil Code §2782), Contractor shall assume defense of, and indemnify and hold harmless, City and each of its officers, employees, consultants and agents, including but not limited to the Board, Project Manager and Construction Manager and each City's Representative, from claims, suits, actions, losses and liability of every kind, nature and description, including but not limited to claims and fines of regulatory agencies and attorney's fees and consultant's fees, directly or indirectly arising out of, connected with or resulting from performance of the Work, failure to perform the Work, or condition of the Work which is caused in whole or part by any act or omission of Contractor, Subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, resulting from any cause whatsoever except their sole negligence, willful misconduct or active negligence.

2.03 With respect to third-party claims against Contractor, Contractor waives any and all rights to any type of express or implied indemnity against City and each of its officers, employees, consultants and agents including, but not limited to City, the Board, Project Manager and Construction Manager and each City's Representative. City shall provide timely notice to Contractor of any third-party claim relating to the Contract Documents, in accordance with Section 9201 of the California Public Contract Code.

2.04 Approval or purchase of any insurance contracts or policies shall in no way relieve from liability nor limit the liability of Contractor, its Subcontractors of any tier, or the officers or agents of any of them.

2.05 To the furthest extent permitted by law (including, without limitation, Civil Code §2782), the indemnities, releases of liability and limitations of liability, claims procedures, and limitations of remedy expressed throughout Contract Documents shall apply even in the event of breach of Contract, negligence (active or passive), fault or strict liability of the party(ies) indemnified, released, or limited in liability, and shall survive the termination, rescission, breach, abandonment, or completion of the Work or the terms of the Contract Documents. If Contractor fails to perform any of these defense or indemnity obligations, City may in its discretion back charge Contractor for City's costs and damages resulting therefrom and withhold such sums from progress payments or other Contract moneys which may become due.

2.06 The indemnities in the Contract Documents shall not apply to any indemnified party to the extent of its sole negligence or willful misconduct; nor shall they apply to City or other indemnified party to the extent of its active negligence.

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DOCUMENT 00 7317

SUPPLEMENTARY CONDITIONS – CITY OF BERKELEY CONTRACTING POLICIES

ARTICLE 1 – GENERAL

1.01 DESCRIPTION

A. This document includes requirements which supplement the sections of the General Conditions.

1.02 PROHIBITED DISCRIMINATION. The following paragraphs shall be added to the General Conditions as a new Article 16.A, and, with the additions set forth in paragraphs 1.03 through 1.08, below, shall constitute a new Section 16 of Document 00 7200, General Conditions, entitled "16: City of Berkeley Contracting Policies".

"16. A PROHIBITED DISCRIMINATION: During prosecution of the Work to be done under the Contract, Contractor shall comply with the provisions of Berkeley Municipal Code ("B.M.C.") Chapter 13.26, including, but not limited to, the following:

1. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, age (over 40), sex, pregnancy, marital status, disability, sexual orientation or AIDS.

2. Contractor shall permit the City access to records of employment, employment advertisements, application forms, EEO-1 forms, affirmative action plans and any other documents which, in the opinion of the City, are necessary to monitor compliance with this non-discrimination provision. In addition, Contractor shall submit forms supplied by the City to monitor this non-discrimination provision."

1.03 CONFLICTS OF INTEREST PROHIBITED. The following paragraphs shall be added to Document 00 7200, General Conditions, as a new Section:

"16. B CONFLICTS OF INTEREST PROHIBITED:

1. In accordance with Government Code section 1090, Berkeley City Charter section 36 and B.M.C. Chapter 3.64, neither Contractor nor any employee, officer, director, partner or member of Contractor or immediate family member of any of the preceding, shall have served as an elected officer, an employee, or a City board, committee or commission member, who has directly or indirectly influenced the making of the Agreement.

2. In accordance with Government Code section 1090 and the Political Reform Act, Government Code section 87100 *et seq*., no person who is a director, officer, partner, trustee, employee or consultant of the Contractor, or immediate family member of any of the preceding, shall make or participate in a decision made by the City or a City board, commission or committee, if it is reasonably foreseeable that the decision will have a material effect on any source of income, investment or interest in real property of that person or Contractor.

   a. Interpretation of this section shall be governed by the definitions and provisions used in the Political Reform Act, Government Code section 87100 *et seq*., its implementing regulations, manuals and codes, Government Code section 1090, Berkeley City Charter section 36 and B.M.C. Chapter 3.64."

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1.04 NUCLEAR FREE BERKELEY ORDINANCE. The following paragraphs shall be added to Document 00 7200, General Conditions, as a new Section:

"16. C NUCLEAR FREE BERKELEY ORDINANCE:

1. Contractor agrees to comply with B.M.C. Chapter 12.90, the Nuclear Free Berkeley Act, as amended from time to time."

1.05 CONTRACTUAL RELATIONS WITH PROHIBITED ENTITIES. The following paragraphs shall be added to Document 00 7200, General Conditions, as a new Section:

"16. D CONTRACTUAL RELATIONS WITH PROHIBITED ENTITIES

1. OPPRESSIVE STATES

a. In accordance with Resolution No. 59,853-N.S. (Appendix 00812-A), Contractor certifies that it has no contractual relations with, and agrees during the term of this agreement to forego contractual relations to provide personal services to, the following entities:

1. The governing regime in any Oppressive State.
2. Any business or corporation organized under the authority of the governing regime of any Oppressive State.
3. Any individual, firm, partnership, corporation, association, or any other commercial organization, and including parent-entities and wholly-owned subsidiaries (to the extent that their operations are related to the purpose of its contract with the City), for the express purpose of assisting in business operations or trading with any public or private entity located in any Oppressive State.

b. Appendix A to Resolution No. 59,853-N.S., and Resolution No. 60,382-N.S. and 70,606-N.S. designates the following as Oppressive States for the purposes of this Contract:

1. Tibet Autonomous Region and the provinces of Ado, Kham, and U-Tsang; and Burma (Myanmar)

c. Contractor's failure to comply with this section shall constitute a default of this Contract and City may terminate the Contractor's right to proceed with the Work pursuant to Document 00 7200, General Conditions, Article 14.05.

1. In the event that the City terminates Contractor due to a default under this provision, City may deem Contractor a non-responsible bidder for five (5) years from the date this Contract is terminated."

1.06 REQUIRED AND PROHIBITED WORK MATERIALS. The following paragraphs are added to Document 00 7200, General Conditions, as a new Section:

"16. E REQUIRED AND PROHIBITED WORK MATERIALS

1. RECYCLED PAPER

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a. If Contractor is required by this Agreement to prepare a written report or study, Contractor shall use recycled paper for said report or study when such paper is available at a cost of not more than ten percent more than the cost of virgin paper, and when such paper is available at the time it is needed. For the purposes of this Agreement, recycled paper is paper that contains at least 50% recycled product. If recycled paper is not available, Contractor shall use white paper. Written reports or studies prepared under this Agreement shall be printed on both sides of the page whenever practical.

TROPICAL HARDWOODS

a. Contractor shall comply with the terms of Resolution No. 58,291-N.S. (Appendix 00812-B) prohibiting the use of any tropical hardwood or wood product, including, but not limited to, those enumerated in Resolution No. 58,291-N.S. Contractor must submit, with its bid, a statement Tropical Hardwood Disclosure form.

b. Except as expressly permitted by the application of Sections 3.B and 4.B. of Resolution No. 58,291-N.S., Contractor shall not provide any items to the City in performance of this contract which are tropical hardwoods or tropical wood products.

c. Contractor's failure to comply with this section shall constitute a default of this Agreement and Contractor agrees that City may take any of the following actions:

1. terminate the Contractor’s right to proceed with the Work pursuant to Document 00 7200, General Conditions, Article 14.05;

2. withhold funds due the Contractor under any contract with the City;

3. order revision of the Contract Documents based upon a material breach of Contract Documents provisions or pertaining to representations made in bidding, execution or performance of the Contract Documents;

4. disqualify the Contractor from eligibility for providing commodities or services to the City for a period not to exceed five (5) years, with a right to review and reconsideration by the City after two (2) years upon a showing of corrective action, indicating violations are not likely to recur.

d. Notwithstanding Article 4 of the Agreement, Contractor acknowledges and agrees that its failure to comply with this requirement justifies the imposition of liquidated damages in an amount equal to Contractor's net profit, or five percent (5%) of the total contract amount, whichever is greater.

1. Liquidated damages under this provision shall be payable to the City upon demand and may be set off against any monies due to the Contractor from any contract with the City.

3. VIRGIN REDWOOD

a. Contractor agrees to comply with the City Council's October 29, 1996, directive not to purchase virgin redwood for the prosecution of the work to be done under this Contract and in its place purchase and use:

1. Redwood that has been previously used or;

2. Certified, sustainable-harvested redwood as the preferred alternative to virgin

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and non-certified redwood, and not pressure-treated lumber of other species as an alternative to redwood."

4. TREATED WOOD

   a. Contractor shall comply with the terms of Resolution No. 61,724-N.S. (Appendix 00812-E) prohibiting the use of Pentachlorophenol, arsenic and creosote treated wood. No such wood shall be used by the contractor in this or any other City project without the express written consent of the City Council.

1.07 ~~FIRST SOURCE HIRING REQUIREMENT. The following paragraphs shall be added to Document 00 7200, General Conditions, as a new Section if the contract exceeds $100,000 but is less than $500,000:~~

~~"16. F FIRST SOURCE HIRING REQUIREMENT~~

~~1. Contractor, and any subcontractors, shall utilize the City's First Source Construction Program under the terms set forth in the First Source specifications. (Appendix 00812-C).~~

~~a. Under the First Source program, Contractor must employ, to the extent possible, a work force where no less than twenty-five percent of the work hours are performed by Berkeley residents, and fifty percent of all new hires are Berkeley residents, on a craft-by-craft basis.~~

~~b. To achieve the goals, Contractor may either:~~

~~1. Utilize the City's First Source referral service, or~~

~~2. Demonstrate a good faith effort to achieve the goals."~~

OR

1.07 COMMUNITY WORKFORCE AGREEMENT. The following paragraph shall be added to Document 00 7200 (General Conditions) as a new Section if the contract exceeds $500,000.

"16.F COMMUNITY WORKFORCE AGREEMENT

1. Contractor and any subcontractor at any tier shall comply with the City's Community Workforce Agreement set forth in the Appendix 00812 C.

   a. Under the Community Workforce Agreement, Contractor must sign and comply with the Agreement to be Bound prior to execution of the Contract.
   b. Subcontractors at any tier must also sign and comply with an Agreement to be Bound prior to execution of their respective subcontracts.
   c. The signing of an Agreement to be Bound is a condition precedent to entering into any contract for this project."

1.08 EQUAL BENEFITS ORDINANCE. The following paragraph shall be added to Document 00 7200 (General Conditions) as a new Section:

"16.G EQUAL BENEFITS ORDINANCE:

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1. Contractor hereby agrees to comply with the provisions of the Berkeley Equal Benefits Ordinance, B.M.C. Chapter 13.29 (Appendix 00812-D). If Contractor is currently subject to the Berkeley Equal Benefits Ordinance, as indicated by the Equal Benefits Certification form, as contained in Document 00680, Contractor will be required to provide all eligible employees with City mandated equal benefits, as defined in B.M.C. Chapter 13.29, during the term of this contract, as well as comply with the terms enumerated herein.

2. If Contractor is currently or becomes subject to the Berkeley Equal Benefits Ordinance, Contractor agrees to provide the City with all records the City deems necessary to determine compliance with this provision. These records are expressly subject to the auditing terms described in Document 00 7200, General Conditions, Article 8.02.

3. If Contractor fails to comply with the requirements of this Article, City shall have the rights and remedies described in this Section, in addition to any rights and remedies provided by law or equity.

    3. Contractor's failure to comply with this Article shall constitute a material breach of the Contract, upon which City may terminate the Contractor's right to proceed with the Work pursuant to Document 00 7200, General Conditions, Article 14.05. In the event the City terminates the Contractor's right to proceed with the Work due to a default by Contractor under this Article, the City may deem Contractor a non-responsible bidder for not more than five (5) years from the date this Contract is terminated. In addition, at City's sole discretion, Contractor may be responsible for liquidated damages in the amount of $50.00 per employee per day for each and every instance of violation of this Section. It is mutually understood and agreed that Contractor's failure to provide its employees with equal benefits will result in damages being sustained by City; that the nature and amount of these damages will be extremely difficult and impractical to fix; that the liquidated damages set forth herein is the nearest and most exact measure of damages for such breach that can be fixed at this time; and that the liquidated damage amount is not intended as a penalty or forfeiture for Contractor's breach. City may deduct any assessed liquidated damages from any payments otherwise due Contractor.

1.09 SANCTUARY CITY CONTRACTING: The following paragraph shall be added to Document 00 7200 (General Conditions) as a new Section:

"16. H SANCTUARY CITY ORDINANCE:

1. Contractor hereby agrees to comply with the provisions of the Sanctuary City Contracting Ordinance, B.M.C. Chapter 13.105. In accordance with this Chapter, Contractor agrees not to provide the U.S. Immigration and Customs Enforcement Division of the United States Department of Homeland Security with any Data Broker or Extreme Vetting Services as defined herein:

    a. "Data Broker" means either of the following:

    ii. The collection of information, including personal information about consumers, from a wide variety of sources for the purposes of reselling such information to their customers, which include both private-sector business and government agencies;

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iii. The aggregation of data that was collected for another purpose from that for which it is ultimately used.

b. “Extreme Vetting” means data mining, threat modeling, predictive risk analysis, or other similar services. Extreme Vetting does not include:

i. The City’s computer-network health and performance tools;

ii. Cybersecurity capabilities, technologies and systems used by the City of Berkeley Department of Information Technology to predict, monitor for, prevent, and protect technology infrastructure and systems owned and operated by the City of Berkeley from potential cybersecurity events and cyber-forensic based investigations and prosecutions of illegal computer based activity.”

END OF DOCUMENT

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SCHEDULE OF APPENDENCES
TO
MODIFICATIONS TO GENERAL CONDITIONS

Schedule of Exhibits: (the following Exhibits are on file at the Berkeley City Clerk's office and will be made available on request to any interested party)

A. City Council Resolution No. 59,853-N.S. (Re: Oppressive States).

B. City Council Resolution No. 58,291-N.S. (Re: Tropical Hardwoods).

C. City Council Resolution No. 61,724-N.S. (Re: Treated Wood).

D. Berkeley Municipal Code, Chapter 13.29, Equal Benefits Ordinance

E. ~~Specifications for City's First Source Construction Program, for contracts between $100,000 and $500,000.~~ – Not Applicable to this Project

E. Community Workforce Agreement and Agreement to be Bound for contract exceeding $500,000.

F. Sanctuary City Contracting Ordinance, B.M.C. Chapter 13.105.

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DOCUMENT 00 7319

SUPPLEMENTARY CONDITIONS – HEALTH AND SAFETY REQUIREMENTS; HAZARDOUS MATERIALS

ARTICLE 1 – GENERAL

1.01 Summary

A. This document includes requirements as they apply to location, removal, remediation and disposal of hazardous materials and hazardous waste.

1.02 HAZARDOUS MATERIALS SURVEY

A. Reference Section 01 1100, Part 1.15 for a list of available documents, including any Hazardous Materials Surveys, if available.

B. Data regarding the locations of hazardous materials was obtained only for use of City and its consultants, contractors, and tenants for planning and design and are not part of Contract Documents.

C. Bidders may rely on this data and information for general accuracy regarding the locations of potentially hazardous materials subject of the Work. City does not warrant and makes no representation regarding the completeness or thoroughness of any data or information regarding existing conditions or hazardous materials, including, but not limited to, quantities, characteristics, volumes, or associated structural features. Bidder represents and agrees that in submitting a Bid it is not relying on any such data, information or deductions.

D. Before submitting a Bid, each Bidder shall be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of Contract Documents.

E. Bidders shall advise City in writing during the Bid period of any questions, suppositions, inferences or deductions Bidders may have for City's review and response. City has provided time in the period prior to bidding for Bidder to perform these investigations.

F. During the Pre-Bid Site Visit(s), City will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former conditions upon completion of such explorations, investigations, tests, and studies. Such investigations may be performed only under the provisions of Document 00 2113 (Instructions to Bidders) and Document 00 7200 (General Conditions) including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such investigation work. Each Bidder shall supply all equipment required to perform any investigations as each Bidder deems necessary. City has the right to limit the number of pieces of machinery operating at one time due to safety concerns.

1.03 Precedence of Documents

A. Should any provision or requirement of any Contract Document conflict with another provision or requirement in the Contract Documents on subject matters of hazardous waste abatement, clean up, disposal, or required safety standards or methods, then the most stringent provision or requirement shall control.

1.04 Means and Methods of Construction

A. Nothing contained in these Contract Documents or inferable therefrom shall be deemed or

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construed (1) to make Contractor the agent, servant or employee of City, or (2) to create any partnership, joint venture or other association between City and Contractor.

1.05 Control of the Work

A. City shall exercise administration of the Contract. The City may employ a consultant to assist. City reserves the right to assign or delegate to this consultant, or any other consultant ("Consultant") any or all of the responsibilities of the Architect/Engineer under the Contract Documents, or alternatively, to act as City's representative.

B. Contractor shall cooperate with Consultant as directed by City. Consultant's duties may include observing the Contractor's health and safety program and practices, observing the abatement construction activities, observing the contractor's abatement work practices for compliance with the Contract Documents, observing the extent of material removed from each job site, reviewing payment requests, reviewing reports required by governmental or quasi-governmental agencies or the Contract Documents, and providing clearance tests after abatement is completed. No action, omission to act, approval, or failure to advise Contractor as to any matter by Consultant shall in any way relieve the Contractor from its responsibility for the performance of the Work in strict accordance with the Contract Documents and applicable Law.

1.06 Warranty, Guarantee and Inspection of Work.

A. Contractor represents and warrants that it, its employees and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Site and the Work, training and ability to comply fully with all applicable Law and contract requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be performed (including, but not limited to, all training required to adequately address the actual or potential dangers of contract performance).

B. Contractor represents and warrants that it, its employees and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state and other governmental and quasi-governmental requirements applicable to the Work.

C. Contractor represents and warrants that it has studied carefully all requirements of the specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in this contract, and prior submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed project in full compliance with the contract requirements.

D. City reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor contract requirements of safe and statutory compliant work methods and (where applicable) safe re-entry level air standards under State and Federal law upon completion of the job, and compliance of the work with periodic and final inspection of public and quasi-public entities having jurisdiction.

E. Contractor acknowledges that City also has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement and post-abatement air monitoring, provided that City shall have no obligation to perform said activities and tests, and that a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event City elects to perform these activities and tests, Contractor shall afford City ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities for tests by City in the Contract Sum and the Scheduled Completion Date. Contractor shall not be entitled to increases in the contract sum or any damages for delay in the event City elects to perform these activities and tests, provided any delays resulting therefrom are reasonable under the circumstances involved. Notwithstanding City's rights

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granted by this paragraph, Contractor shall retain its own industrial hygiene consultant and shall have primary responsibility for collecting samples and perform all applicable, relevant or appropriate activities and tests including, but not limited to, pre-abatement, during abatement and post-abatement air monitoring, required or suggested by the Contract Documents, the Law, or both, and City reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work.

1.07 RECORDS

A. Contractor shall obtain and maintain and shall furnish to City on completion of the Work, or at any other time requested by City, all necessary permits, licenses, approvals, authorizations, notifications, training certificates, respirator certificates, reports, correspondence, test results, air monitoring certificates, forms, medical records, medical certificates, notes and photographs of work conditions, approved shipping and disposal facility receipts, manifests, and all other documentation required by the Contract Documents or applicable Law, or both.

B. Contractor shall provide City with copies of each such document as it is generated and shall, as a condition to final payment, provide City with a complete set of such documents (bound, organized and indexed) at the conclusion of the Work. Contractor shall keep and maintain in retrievable files true and correct copies of all such documents for a period of not less than thirty (30) years after final completion of the Work. City shall have the right to inspect or photocopy these records and, if Contractor should cease business operations, then it shall furnish these records to City.

1.08 Compliance with laws

A. Contractor represents that it is familiar with shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state and local laws, statutes standards, rules, regulations and ordinances applicable to the Work (collectively, the "Law") relating to:

1. the protection of the public health, welfare and environment;
2. storage, handling or use of asbestos, PCB, lead, petroleum based products or other hazardous materials;
3. the generation, processing, treatment, storage, transport, disposal, destruction or other management of asbestos, PCB, lead, petroleum or hazardous waste materials or other waste materials of any kind; or,
4. the protection of environmentally sensitive areas such as wetlands.

B. Contractor has the sole responsibility for determining current waste storage, handling, transportation and disposal regulations for the jobsite and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable Law. City, may, but is not obligated to, require submittals with this information for it to review consistent with the Contract Documents.

C. Contractor shall develop and implement a system acceptable to City to track hazardous waste from the site to disposals, including appropriate "Hazardous Waste Manifests" on the EPA form, so that City may track the volume of waste it put in each landfill and receive from each landfill a certificate of receipt.

D. Contractor shall provide City with the name and address of each waste disposal facility prior to any disposal, and City shall have the express right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which City has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to the general contractor.

1.09 Permits

A. Before performing any of the Work, and at such other times as may be required by applicable Law, Contractor shall deliver all requisite notices and obtain the approval of all governmental and quasi-governmental authorities having jurisdiction over the Work. Contractor shall submit evidence satisfactory to City that it and any disposal facility (1) have obtained all required permits, approvals and the like in a timely manner both prior to commencement of the Work and thereafter as and when required by applicable Law, and (2) are in compliance with all such permits,

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approvals and the like. For example, before commencing any work in connection with the Work involving asbestos-containing materials or PCB subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to City. Contractor shall not conduct any Work involving asbestos-containing materials or PCB unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification. All permits, licenses, bonds required by governmental or quasi-governmental authorities, fees, deposits, tap fees, offsite easements and asbestos and PCB disposal facilities necessary for the prosecution of the Work shall be procured and paid for by Contractor. Contractor shall give all notices and comply with the Law bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying City in writing of such fact. If Contractor performs any Work contrary to the Law without such notice to City, it shall bear all costs arising therefrom.

B. In the case of any permits or notices held in City's name or of necessity to be made in City's name, City shall cooperate with Contractor in securing the permit or giving the notice, but the Contractor shall prepare for City's review and execution upon approval, all necessary applications, notices and other materials.

1.10 Indemnification and Termination

A. To the extent permitted by law, the indemnities and limitations of liability expressed throughout the Contract Documents apply with equal force and effect to any claims or liabilities imposed or existing by virtue of the removal, abatement and disposal of hazardous waste. This includes liabilities connected to the selection and use of a waste disposal facility, personal injury, property damage, loss of use of property, damage to the environment or natural resources, or "disposal" and "release" of materials associated with the Work (as defined in 42 U.S.C. 9601 et seq).

B. Notwithstanding anything in Document 00 7200 to the contrary, City shall have an absolute right to terminate the Contractor’s right to proceed with the Work for cause immediately, without ten calendar days notice and without an opportunity to cure, should Contractor knowingly or recklessly commit a material breach of the terms of the Contract Documents or the Law, on any matter involving the exposure of persons or property to hazardous waste. However, if the breach of contract exposing persons or property to hazardous waste is due solely to an ordinary, unintentional and non-reckless failure to exercise reasonable care, then the procedures in Document 00 7200, Article 14.05, shall apply without modification.

1.11 Protection of Work, Persons and Property

A. Contractor shall perform safe, expeditious and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal and disposal industry, the Law (as herein defined), and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the Law, delivering of all requisite notices, and obtaining all necessary governmental and quasi governmental approvals.

END OF DOCUMENT

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DOCUMENT 00 7380

APPRENTICESHIP PROGRAM

ARTICLE 1 – COMPLIANCE REQUIRED

1.01 Contractor and Subcontractors shall comply with the requirements of California Labor Code §§1776, 1777.5, and 1777.6 concerning the employment of apprentices by Contractor or Subcontractors. Willful failure to comply may result in penalties, including loss of the right to Bid on or receive public works contracts.

ARTICLE 2 – CERTIFICATION OF APPROVAL

2.01 California Labor Code §1777.5, as amended, requires a Contractor or Subcontractor employing tradespersons in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of a public works project and which administers the apprenticeship program in that trade for a certification of approval. The certificate shall also fix the ratio of apprentices to journeypersons that will be used in performance of the Contract. The ratio of work performed by apprentices to journeypersons in such cases shall not be less than one *hour* of apprentices work for every five *hours* of labor performed by journeypersons (the minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeypersons), except:

A. When unemployment for the previous three month period in the area exceeds an average of 15 percent;

B. When the number of apprentices in training in the area exceeds a ratio of one to five;

C. When a trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis state-wide or locally; or

D. Assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyperson.

ARTICLE 3 – FUND CONTRIBUTIONS

3.01 Contractor is required to make contributions to funds established for administration of apprenticeship programs if Contractor employs registered apprentices or journeypersons in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

ARTICLE 4 – APPRENTICESHIP STANDARDS

4.01 Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of the California Department of Industrial Relations, or from the Division of Apprenticeship Standards and its branch offices.

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DOCUMENT 00 9113

ADDENDA

SPECIFICATION NO. 26-11762-C

CITY OF BERKELEY

1947 CENTER ST. WINDOW REPLACEMENT PROJECT

1947 CENTER STREET

[DOCUMENT TO BE COMPLETED AS ADDENDA DURING BID PERIOD]

The following Addenda were issued, modifying the Project Manual:

Addendum No. 1, issued on **May 4, 2026**
Addendum No. 2, issued on **May 15, 2026**
Addendum No. 3, issued on **May 26, 2026**
Addendum No. 4, issued on **June 5, 2026**

(Addenda have been incorporated into the conformed Project Manual.)

END OF DOCUMENT

ADDENDUM NO. 1

MAY 4, 2026

The bid documents for Specification No. 26-11762-C for the1947 Center St. Window Replacement Project are amended as follows:

1-1. DOCUMENT 00 2113 ARTICLE 1 – PROCEDURES FOR SUBMISSIONS OF BIDS

A: City WILL conduct a Non-Mandatory Pre-Bid Conference and Site Visit at 1947 Center Street, at 11:00 AM, Wednesday, May 6, 2026. The location of work is open to the public during normal Business or daylight hours. It is recommended that potential bidders visit the site independently to review site prior to bid.

QUESTIONS AWORKND RESPONSES:

2-1. Q: Can you verify the Non-Mandatory Pre-Bid Meeting on 5/6 at 10 AM or 11 AM?
A: 11 AM.

2-2. Q: Can you confirm the bid date & time?

A: Bids are due Thursday May 28 at 2 PM.

2-3. Q: Is there a design/architect involved on the project?

A: Yes, Noll & Tam Architects and Wiss, Janney, Elstner Associates, Inc

ADDENDUM NO. 2

MAY 15, 2026

The bid documents for Specification No. 26-11762-C for the 1947 Center St. Window Replacement Project are amended as follows:

1-1. Automatic Gas Shut-off Valve Addendum

This is required per BMC 19.34.040.

Furnish and install a 4-inch diameter automatic seismic valve on the gas supply to the building on the customer side of the existing natural gas PG&E meter. Provide additional shutoff valve as indicated on the attached sketch. The gas meter in located in gas meter room in the basement. See attached sketches and cut sheet for the seismic valve.

Coordinate all work with the city and PG&E for gas system shutdown. Provide proper ventilation in the gas meter room and establish safety procedure and practice throughout the entire gas line modification. Notify in advance the building owner and PG&E. Submit a written safety to the building owner/City of Berkeley for review and approval.

1-2. Drinking Fountain Addendum

Sheet P2.05 and P2.06:

Remove and salvage existing drinking fountain/cooler on basement, 1st floor, 2nd floor, 4th floor, 5th floor and 6th floor. Turn over the salvaged drinking fountain to the owner. Provide new dual hi and low drinking fountain/cooler. New drinking fountain/cooler shall be Elkay model lzstl8wsspw1 with wall support carrier. Modify existing plumbing as necessary. Install drinking fountain/cooler per manufacturer's recommendations. See attached cut sheets.

QUESTIONS AWORKND RESPONSES:

2-1. Q: Please clarify the retention (retainage) percentage required.
A: Five percent (5%), see section 01 2000-3.

2-2. Q: Can you please advise when is this project supposed to start?

A: This project may begin three months or more after bidding is completed to allow time for Council approval and contract execution. However, as this is a Community Workforce Agreement (CWA) project, all required pre-job coordination meetings and union hall work assignments must be completed prior to construction activities. Mobilization would also need to occur after submittals have been reviewed and approved.

2-3. Q: Is there a prequalification requirement?

A: Qualifications are notes in Section 00 4513.

1.01 Minimum Bidder Qualifications.

A. Bidders must be duly licensed in accordance with the California Business & Professions Code and have a history of work performance sufficient to meet the requirements of a responsible bidder in the California Public Contract Code Section 1104.

B. Bidders must have three (3) years experience as a continuously operating entity engaged in the performance of similar work.

C. Bidders must demonstrate successful experience with type of work of this Project, to include, within the past year, completed two (2) projects of a similar nature and complexity with a contract dollar amount of (i.) at least 75% of the amount of Bidder's Bid or (ii.) 125% of such amount in the aggregate.

2-4. Q: Does the engineering estimate include bid alternate items?

A: No, the engineering estimate includes base bid items only.

2-5. Q: Are there any service elevators?

A: No, the only elevators in the building are for passengers.

2-6. Q: Is there driveway access?

A: No.

2-7. Q: How will we get material to the 6th floor?

A: This will be determined by the contractor's means and methods. Any crane mobilization will require an approved TCP and all associated permits.

2-8. Q: Will we be able to scaffold or use a suspended scaffold?

A: This will be determined by the contractor's means and methods. Note that a scaffolding engineer will need to evaluate and provide structural calculations. If suspended scaffolding is used an engineer will need to evaluate the bearing capacity.

2-9. Q: Is the 5th floor work likely to be approved

A: The 5th floor scope is currently being considered and will depend on project budget availability.

2-10. Q: What material needs to be abated?

A: Exterior paint and putty have tested positive for lead. Concrete/stucco generally do not contain asbestos unless there is evidence of patchwork. Any patchwork or other suspect materials should be tested prior to removal.

2-11. Q: Where does abatement work start and end.

A: Abatement is limited to areas disturbed by contract work.

2-12. Q: What areas can be used for staging?

A: The contractor will be required to submit a staging plan during the submittal process and obtain all necessary permits. If staging impacts metered parking areas, a "No Parking" permit will also be required.

2-13. Q: Can we stage on the roof?

A: It is possible. However, an engineer will need to evaluate the bearing capacity

2-14. Q: Is this a historic building?

A: Yes, this building is registered under National Register of Historic Places.

2-15. Q: Will an office trailer be necessary, or can we use space in the building?

A: The contractor will have access to vacant areas on the 6th floor to set up their office space.

2-16. Q: Are all office finishes the same?

A: Mostly yes, though there are a few areas in common spaces with different paint colors. All other windows features and wall finishes are the same.

2-17. Q: How far back should demolition extend?

A: As needed. Refer to the contract documents for additional information.

2-18. Q: What will happen to the blinds?

A: The blinds are to be salvaged. The contractor will be responsible for removal and reinstallation.

2-19. Q: Will staff be relocated?

A: The 6th floor is currently vacant. For any work on the 5th floor, designated areas will be made available as needed.

2-20. Q: Is there electrical scope for the drinking fountain?

A: No, the existing duplex outlet is all that’s required.

ADDENDUM

to the Contract Documents

10 May 2026

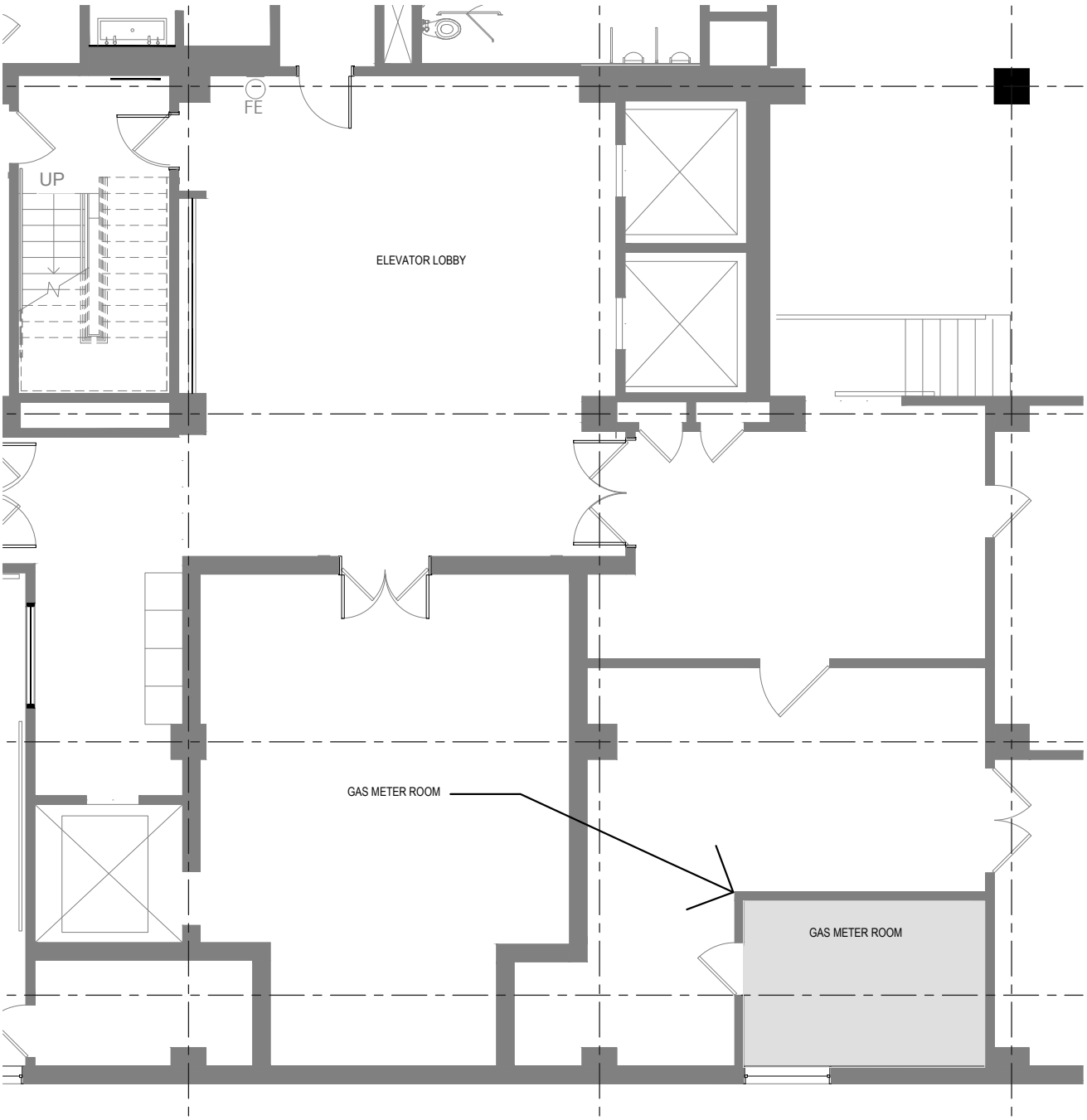
The following changes, additions, or deletions shall be made to the referenced documents as indicated and shall be a part thereof as if originally specified and/or shown. All other conditions remain the same.

Item 1

Furnish and install a 4-inch diameter automatic seismic valve on the gas supply to the building on the customer side of the existing natural gas PG&M meter. Provide additional shutoff valve as indicated on the attached sketch. The gas meter in located in gas meter room in the basement. See attached sketches and cut sheet for the seismic valve.

Coordinate all work with the City and PG&E for gas system shutdown. Provide proper ventilation in the gas meter room and establish safety procedure and practice throughout the entire gas line modification. Notify in advance the building Owner and PG&E. Submit a written safety to the building Owner/City of Berkeley for review and approval.

END OF ADDENDUM

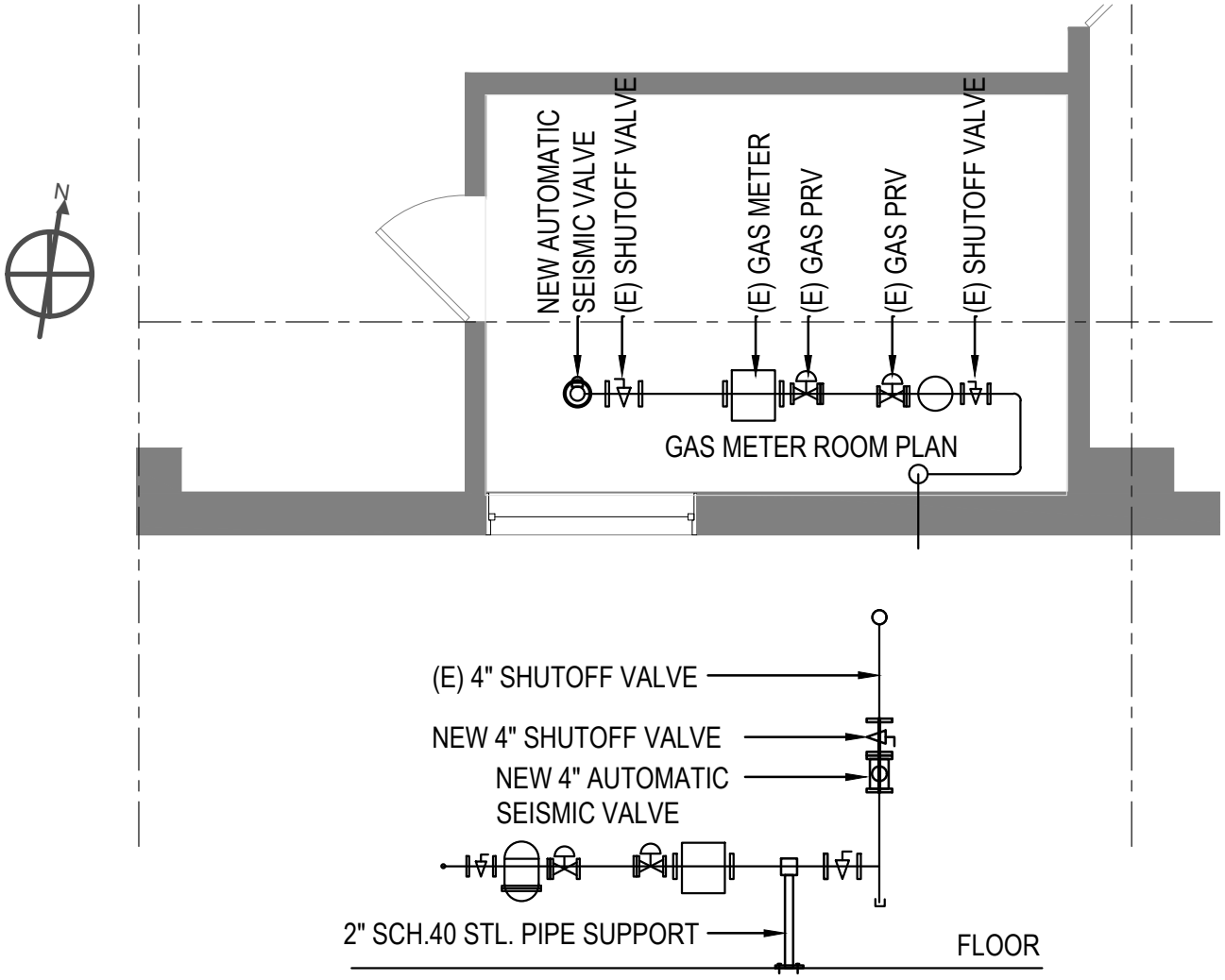


PARTIAL BASEMENT PLAN

SCOPE OF WORK: FURNISH AND INSTALL AUTOMATIC GAS SEISMIC VALVE ON THE CUSTOMER SIDE OF THE PG&E GAS METER. LOCATE SEISMIC VALVE TO THE 4" RISER WITH SHUTOFF VALVE.

Noll&Tam/EPCE
274 Devonshire Street ph. (707) 980-4049
Vallejo, CA 94591
email: eddie.padilla@comcast.net

PROJECT: City of Berkeley City Hall 1947 Center Street		PROJECT NUMBER: 22511	DRAWING #: ADD-1
TITLE: Natural Gas Service Seismic Valve Addition	DATE: 01.09.19	DWG REF #:	PAGE 1 OF 2



GAS METER PIPING ELEVATION

SCOPE OF WORK: FURNISH AND INSTALL AUTOMATIC GAS SEISMIC VALVE ON THE CUSTOMER SIDE OF THE PG&E GAS METER. LOCATE SEISMIC VALVE TO THE 4" RISER WITH SHUTOFF VALVE. PROVIDE ADDITIONAL PIPE SUPPORT WITH 2" SCHEDULE 40 BLACK STEEL PIPE WITH (4) $\frac{1}{2}$" EXPANSION SHIELD ANCHOR BOLTS, 3" EMBEDMENT.

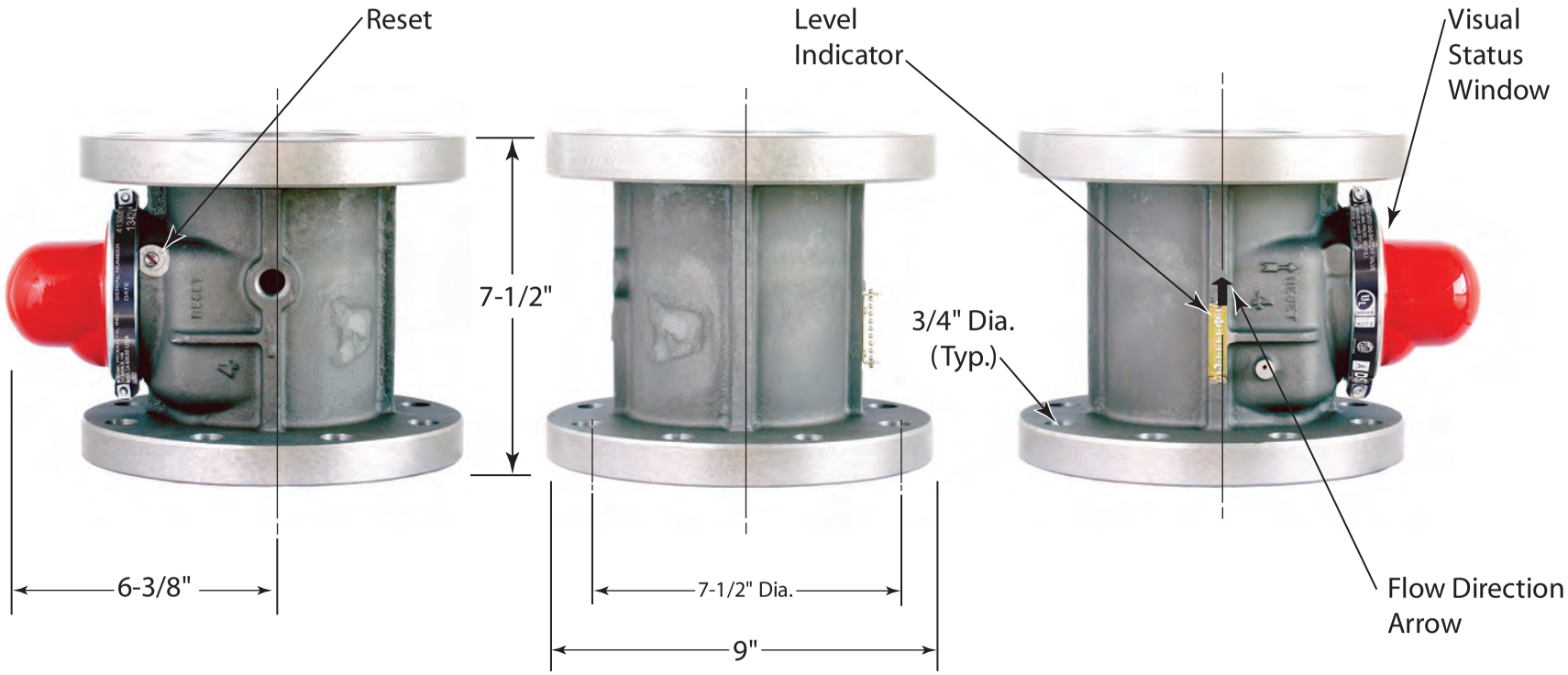
SPECIFICATIONS

1. AUTOMATIC SEISMIC VALVE: ANSI Z21.21 PACIFIC SEISMIC PRODUCT MODEL VB-316f(60) RAISE FACE FLANGED VALVE.
2. SHUTOFF VALVE: NORDSTROM LUBRICATED PLUG VALVE 120, ASME 150 PRESSURE CLASS, RAISED FACE FLANGED ENDS (ASME 16.5), WRENCH SQUARE-NUT OPERATOR, CARBON STEEL BODY, CARBON STEEL BOLTED COVER WITH LOCKING DEVICE FOR NATURAL GAS SERVICE.
3. PIPING: BLACK STEEL PIPE, SCHEDULE 40 WELDED JOINTS ASTM A53, CLASS 150 FLANGES ANSI B16.1. GASKET MATRIAL SUITABLE FOR NATURAL GAS.
4. GAS PIPING SHALL COMPLY WITH NFPA 54 AND CALIFORNIA PLUMBING CODE 2025.

Noll&Tam/EPCE 274 Devonshire Street ph. (707) 980-4049 Vallejo, CA 94591 email: eddie.padilla@comcast.net	PROJECT: City of Berkeley City Hall 1947 Center Street		PROJECT NUMBER: 22511	DRAWING #: ADD-1 PAGE 2 OF 2
	TITLE: Natural Gas Service Seismic Valve Addition	DATE: 01.09.19	DWG REF #:	

Specifications: Model VB-316F(60) Flanged Valve

Vertical - Bottom In Flow



Valve Model#	CA-DSA No.	Length	Height	Diameter	Nominal Pipe Size	APPLICATION DATA		Diameter On Center	Diameter Hole (Typ.)	Number of Holes
						Max. Pressure	Fuel			
VB-316F	13-27	6-3/8"	7-1/2"	9"	4"	60 psi	Dry Fuel Gas	7-1/2" Dia.	3/4" Dia.	8

California Seismic Valves are UL listed in the USA. Certified by the California State Architect's Office, Approved by the City of Los Angeles, and are warranted free of manufacturer's defects for 30 years. All valves meet California Standards for Earthquake Actuated Automatic Gas Shut off Systems, Standard No. 12-12-1, ANSI Z21.21, 2012 and ASCE 25-06 Standards.

Pacific Seismic Products

233 East Avenue H-8 ● Lancaster, CA 93535 ● USA

Tel (661) 942-4499
Fax (661) 942-0999
TF (800) 4-GAS-OFF
www.4GasOff.net

4” Model VB-316F California Seismic Valve

Flanged Vertical - Upward Flow

FLOW CAPACITY TABLE IWC/PSIG - Capacity S.C.F.H.

Merit Rating: Cv 480 (Equivalent Length of Pipe is 13 Feet)

For determining approximate values at selected natural gas pressures to 60 PSIG

Pressure Drop		8” iwc Inlet	14” iwc Inlet	3 psi Inlet	5 psi Inlet	7 psi Inlet	10 psi Inlet	20 psi Inlet	60 psi Inlet
PSI	IWC								
.0036	0.1	8,276	8,335	8.988	9,482	9,952	10,618	12,586	18,467
.0072	0.2	11,702	11,786	12,710	13,409	14,073	15,015	17,798	26,116
.0108	0.3	14,331	14,433	15,564	16,421	17,235	18,389	21,797	31,985
.0144	0.4	16,546	16,664	17,970	18,960	19,900	21,232	25,168	36,932
.0180	0.5	18,497	18,629	20,090	21,195	22,247	23,736	28,137	41,290
.0216	0.6	20,260	20,404	22,005	23,216	24,368	26,000	30,821	45,230
.0252	0.7	21,880	22,036	23,765	25,074	26,318	28,081	33,289	48,853
.0288	0.8	23,388	23,555	25,404	26,803	28,133	30,017	35,585	52,225
.0324	0.9	24,804	24,981	26,942	28,426	29,837	31,836	37,742	55,392
.0360	1.0	26,143	26,329	28,396	29,961	31,448	33,556	39,782	58,387
.0720	2.0	36,927	37,191	40,118	42,333	44,438	47,420	56,230	82,551
.1080	3.0	45,172	45,496	49,084	51,799	54,379	58,035	68,832	101,080
.1440	4.0	52,098	52,472	56,619	59,758	62,740	66,964	79,439	116,689
.1800	5.0	58,177	58,596	63,237	66,750	70,086	74,813	88,769	130,430

Vertical Valves

		Sizes Available													Ambient Temperature
		NPT								Flanged					CA DSA: -30°C (-22°F) to +70°C (158°F
		3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	2"	2 1/2"	3"	4"	6"	8"	Fluid
Maximum Pressures of Available Sizes	7 psi	✓	✓	✓	✓											Natural gas LP gas
	60 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

ADDENDUM

to the Contract Documents

08 May 2026
Rev. 1

The following changes, additions, or deletions shall be made to the referenced documents as indicated and shall be a part thereof as if originally specified and/or shown. All other conditions remain the same.

Item

P2.05 and P2.06:
Remove and salvage existing drinking fountain/cooler on Basement, 1st Floor, 2nd Floor, 4th Floor, 5th Floor and 6th Floor. Turn over the salvaged drinking fountain to the Owner. Provide new dual Hi and Lo drinking fountain/cooler. New drinking fountain/cooler shall be Elkay model LZSTL8WSSP-W1 with wall support carrier. Modify exist plumbing as necessary. Install drinking fountain/cooler per manufacturer's recommendations. See attached cut sheets.

END OF ADDENDUM

Model LZSTL8WSSP-W1

Enhanced Connected Bottle Filler & Bi-Level ADA Cooler
Refrigerated Stainless High Capacity Lead Drop Down Wrapper

TAG_____

PRODUCT SPECIFICATIONS

Enhanced Connected Bottle Filler & Bi-Level ADA Cooler Refrigerated Stainless High Capacity Lead Drop Down Wrapper. Chilling Capacity of 8.0 GPH (gallons per hour) of 50° F drinking water, based on 80° F inlet water and 90° F ambient, per ASHRAE 18 testing. Features shall include Antimicrobial*, Automatic Filter Status Reset, Cloud Connected Device, Energy Savings, Chilled Water, FillSafe™, Filtered, Green Ticker™, Hands Free, Laminar Flow, Visual Filter Monitor, Real Drain, Quick Filter Change, Alcove Light. Furnished with Flexi-Guard ® Safety Bubbler. Electronic Bottle Filler Sensor with Electronic Front and Side Bubbler Pushbar activation. Product shall be Wall Mount (On Wall), for Indoor applications, serving 2 station(s). Unit shall be certified to UL 399 and CAN/CSA C22.2 No. 120.

Special Features:	Antimicrobial, Automatic Filter Status Reset, Cloud Connected Device, Energy Savings, Chilled Water, FillSafe™, Filtered, Green Ticker™, Hands Free, Laminar Flow, Visual Filter Monitor, Real Drain, Quick Filter Change, Alcove Light
Finish:	Stainless Steel (S)
Power:	115V/60Hz
Bubbler Style:	Flexi-Guard ® Safety Bubbler
Activation by:	Electronic Bottle Filler Sensor with Electronic Front and Side Bubbler Pushbar
Mounting Type:	Wall Mount (On Wall)
Chilling Capacity⁺:	8.0 GPH
Full Load Amps	5
Rated Watts:	370
Dimensions (L x W x H):	36-3/4" x 19" x 39-1/2"
Approx. Shipping Weight:	106 lbs.
Installation Location:	Indoor
No. of Stations Served:	2
⁺Based on 80° F inlet water & 90° F ambient air temp for 50° F chilled drinking water.	

Special Note: Requires VERSATILEBFKIT accessory to move the bottle filler to the left side. plumbSMART Gateway and Account required for cloud connection.

COOLING SYSTEM

- Compressor: Hermetically-sealed, reciprocating type, single phase. Sealed-in lifetime lubrication.
- Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.
- Cooling Unit: Combination tube-tank type. Continuous copper tubing with is fully insulated with EPS foam that meets UL requirements for self-extinguishing material.
- Refrigerant Control: Refrigerant R-134a is controlled by accurately calibrated capillary tube.
- Temperature Control: Easily accessible enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.

PART:_____QTY: _____

PROJECT:_____

CONTACT:_____

DATE:_____

NOTES:_____APP

ROVAL:_____

Additional Finishes: **Arctic White (A)**
Midnight Black (M)

Included with Product: **Bottle Filler,**
Water Cooler,
Filter

Ships in one box.

A Century of Tradition and Quality.
For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

PRODUCT COMPLIANCE

ADA & ICC A117.1
ASME A112.19.3/CSA B45.4
CAN/CSA C22.2 No. 120
FCC & ISED
GreenSpec®
NSF/ANSI 42, 53, 61 (Q≤1), 372 (lead free), & 401
UL 399

This Zurn Elkay product has a certified Environmental Product Declaration (EPD) that complies with an independently verified life cycle assessment (LCA). Visit Product Declarations and Certifications for more information.

Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards. Installation may require additional components and/or construction features to be fully compliant. Consult the local Authority Having Jurisdiction if necessary.

Installation Instructions (PDF) - 2000001134

5 Year Limited Warranty on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. **Warranty pertains to drinking water applications only. Non-drinking water applications are not covered under warranty.**

Warranty (PDF)

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Model LZSTL8WSSP-W1

Enhanced Connected Bottle Filler & Bi-Level ADA Cooler
Refrigerated Stainless High Capacity Lead Drop Down Wrapper TAG_____

Features

•	Drop-down wrapper provides easy access to filter from front and side of cooler for convenient and efficient filter change in under a minute	•	The included 6,000-gallon filter is tested and certified to NSF 42, 53 and 401 for lead, microplastics, Class 1 particulate, chlorine taste and odor reduction
•	Connected dashboard lets facility managers monitor filter status across all units, making it easier to plan and anticipate filter replacements	•	Schedule flushing events from your desktop, with automatic record-keeping to ensure compliance and safety
•	Save time and effort by viewing Bottles Saved across all units in the building or campus	•	Understand the volume of water consumed vs wasted at a glance, across all connected units
•	Touchless, sensor activation (bottle filler) designed for easy use; easy-to-operate push-bar activation (bubbler)	•	Hermetically sealed refrigeration system provides chilled water
•	Fill rate is 1.1 GPM. Laminar flow provides clean fill with minimal splash. Real drain system eliminates standing water	•	Intuitive series of blue LED filter status lights accurately displays filter capacity, providing peace of mind to all users that system is properly filtering contaminants
•	System automatically recognizes new filter and updates LED lights back to blue	•	Green Ticker™ informs user of number of 20 oz. plastic water bottles saved from waste
•	Key plastic components are manufactured with silver ion antimicrobial agent helping to provide clean, stain- and odor-free surfaces	•	Low-energy LED light encourages use, assists with filling dark bottles and illuminates in dark hallways
•	One-box packaging so the cooler and bottle filler ship together		*Antimicrobial claims are in reference to components manufactured antimicrobial agents, helping to provide clean, stain- and odor-free surfaces.

Optional Accessories

51600C	WaterSentry® Lead + Microplastics NSF/ANSI Certified 6000 Gal 12 Month Filter Spec Sheet (PDF)	
LKAPREZL	Cane Apron for EZ Gray Spec Sheet (PDF)	
STLBFUP	Universal Back Panel Assembly Kit for Bi-level Coolers with Bottle Filler Spec Sheet (PDF)	
MLP200	In-wall Carrier for Bi-level On-wall Bottle Fillers Coolers & Fountains Spec Sheet (PDF)	
ZGW-LORA-W1-LTE	Zurn Gateway for Zurn Connected Products Spec Sheet (PDF)	
VERSATILEBFKIT	Cable Extension for Versatile BF Spec Sheet (PDF)	

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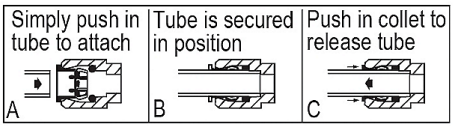
IMPORTANT!
INSTALLER PLEASE NOTE :

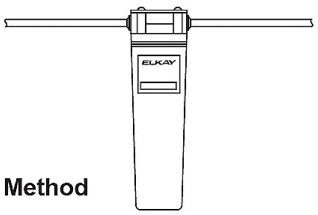
This water cooler has been designed and built to provide water to the user which has not been altered by materials in the cooler waterways. The grounding of electrical equipment such as telephone, computer, etc. to water lines is a common procedure. The grounding may be in the building but may also occur away from the building. This grounding can cause electrical feedback into a water cooler creating an electrolysis which creates a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by installing the cooler using the proper materials as shown below.

NOTICE

This water cooler must be connected to the water supply using a dielectric coupling. The cooler is furnished with a non-metallic strainer which meets this requirement. The drain trap which is provided by the installer should also be plastic to completely isolate the cooler from the building plumbing system.
Bottle filler unit on bracket attached to wall by 6 holes (as shown). Water and electrical will connect through pre-punched hole in basin.

OPERATION OF QUICK CONNECT FITTINGS

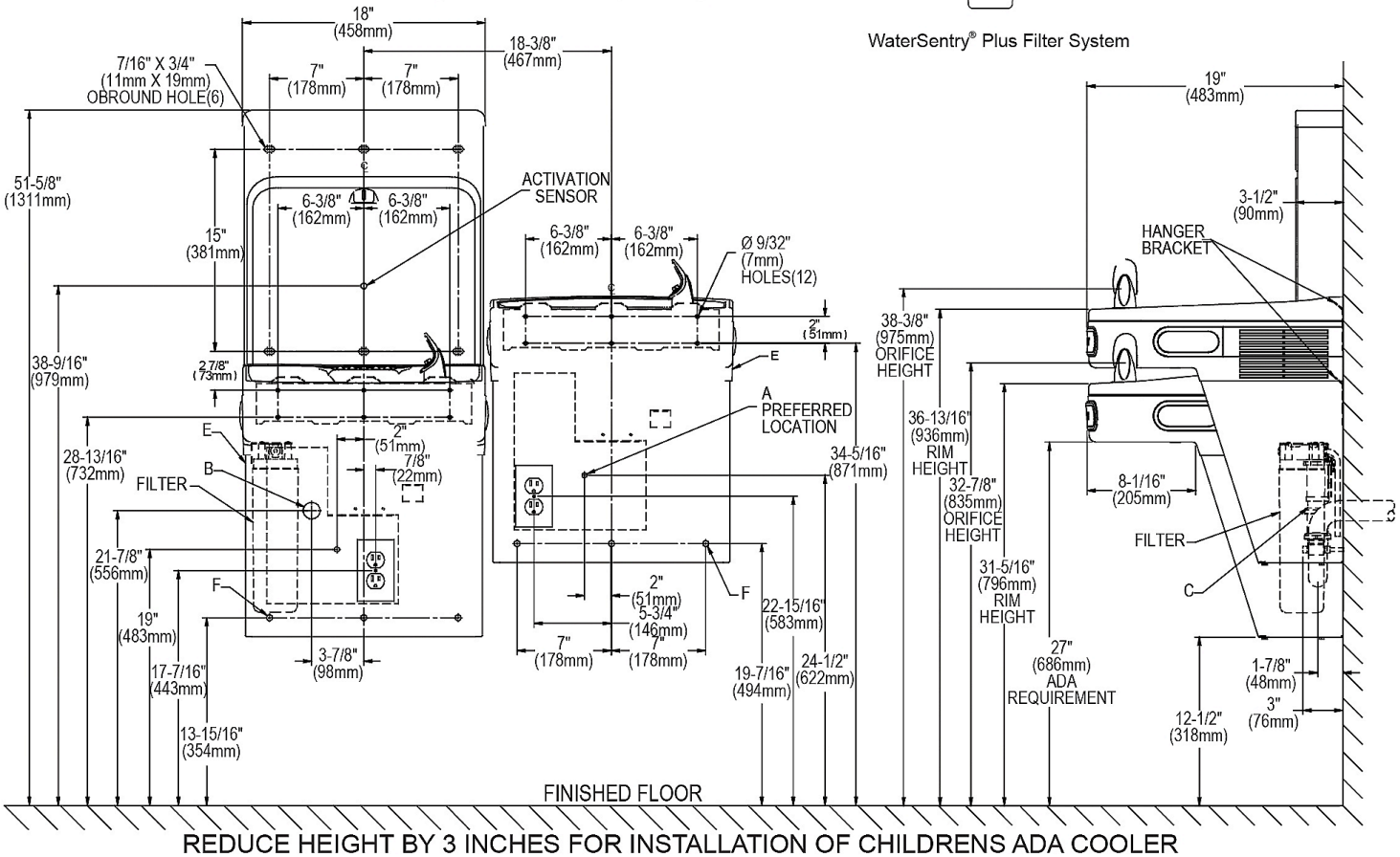




Pushing tube in before pulling it out helps to release tube

Optional Reverse (Hi-Low) Installation Method

WaterSentry® Plus Filter System



REDUCE HEIGHT BY 3 INCHES FOR INSTALLATION OF CHILDRENS ADA COOLER

LEGEND:
A = Recommended Water Supply location. Shut-off Valve (not furnished) to accept 3/8" O.D. unplated copper tube. Up to 3" (76mm) maximum out from wall.
B = Recommended Waste Outlet location. To accommodate 1-1/2" nominal drain. Drain stub 2" (51mm) out from wall.
C = 1-1/2" Trap (not furnished).
D = Electrical Supply (3) Wire Recessed Box Duplex Outlet.
E = Insure proper ventilation by maintaining 6" (152mm) minimum clearance from cabinet louvers to wall.
F = 7/16" (11mm) Bolt Holes for fastening to wall.
Note : New Installations Must Use Ground Fault Circuit Interrupter (GFCI).

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

ADDENDUM NO. 3

MAY 26, 2026

The bid documents for Specification No. 26-11762-C for the 1947 Center St. Window Replacement Project are amended as follows:

1-1. COVER

BID OPENING DATE: Thursday, June 11, 2026

1-2. DOCUMENT 00 0110 TABLE OF CONTENTS – APPENDICES

G. CITY OF BERKELEY COMMUNITY WORKFORCE AGREEMENT

1-3. DOCUMENT 00 1113 ARTICLE 1 – INVITATION TO BID

Notice Inviting Bids: City of Berkeley ("City") will receive sealed Bids at City of Berkeley, Purchasing Manager's Office, located at the Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320, until **2:00 pm, Thursday, June 11, 2026** for the following public work:

1-4. BIDDERS AND CONTRACTOR CHECKLIST

Items Required at Bid Opening: **2:00 PM, Thursday, June 11, 2026**, at City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704

QUESTIONS AWORKND RESPONSES:

2-1. Q: Can you let us know if Bid Alternates A1 through A5 will be awarded with the original contract, or if the City plans to add them later as Change Orders? If they may come in later, how long after NTP can we hold our alternate pricing firm? This makes a real difference on our end since re-mobilizing scaffolding and cranes, locking in material pricing, and adjusting bonds all get more expensive the further out we go.

A: If budget is available, scope would be incorporated onto the original contract.

2-2. Q: Can you confirm how many windows are on each 5th Floor elevation (South, East, West, and North), along with the types and sizes, so we can line them up with Bid Alternates A1 through A4? Also, are any window types only found on one elevation? If so, those would need their own fabrication run. This helps us price each alternate on its own and plan material lead times and mobilization correctly. (Reference: Drawings A301–A304, A402, A502, Bid Alternates A1–A4).

A: 46 total, 33 type A to be replaced with AA, 11 type D to be replaced with DD, 1 type E to be replaced with EE, and 1 F to be replaced with FF

South: 17 total, 17 type A to be replaced with AA
East: 7 total, 5 type D to be replaced with DD, 1 E to be replaced with EE, 1 F to be replaced with FF
West: 6 total, 6 type D to be replaced with DD
North: 16 total, 16 type A to be replaced with AA

See Sheet A402 for sizes of each window type.

Fabrication run is at the contractor and manufacturer's discretion on how to provide the best value.

2-3. Q: Addendum No. 2 puts the 5th Floor drinking fountain replacement under Base Bid Item 3, along with the fountains on the Basement, 1st, 2nd, 4th, and 6th Floors. Can you confirm the 5th Floor fountain stays in the Base Bid even if Alternate A5 (5th Floor restrooms) isn't picked up? And if A5 isn't exercised, how would you like us to coordinate access to the 5th Floor for the fountain work, since the floor is occupied? (Reference: Section 01 1100 Bid Item 3 and Addendum No. 2, Item 1-2, Bid Alternate A5)

A: Correct, 5th floor drinking fountain will remain as base bid items under item 3. If 5th floor restroom scope (item A5) doesn’t get approved, the contractor will work with the City’s project manager to coordinate access. It will be an occupied floor.

2-4. Q: Addendum No. 2 confirms the 6th Floor is vacant and that we'll get access to designated areas on the 5th Floor "as needed." For any of the alternates we end up doing on the 5th Floor, can you clarify a few things? First, will the whole floor be cleared while we're working, or just the area we're actively in? Second, will any of the work need to happen after hours, on weekends, or at night? And finally, who handles moving staff and disconnecting/reconnecting IT - us or the City? Each of these has a real impact on how we price and schedule the 5th Floor scope.

A: For pricing purposes, assume that most single elevations on the 5th floor can be made available one at a time during regular working hours. If the work is approved, assume any required moving scope will be performed by others.

2-5. Q: Can you walk us through who's pulling and paying for which permits — the City or the Contractor? Specifically: the Building Permit, encroachment and sidewalk closure permits, No-Parking permits, PG&E coordination fees for the gas shutdown tied to the seismic valve work (Addendum No. 2, Item 1-1), and any crane or Traffic Control Plan (TCP) permits. Also, if the existing Conditional Approval (Appendix C) wasn't included in the bid package, could you send a copy our way?

A: The City will be responsible for paying for the building, electrical, plumbing, or mechanical permits. However, there are forms that the City will need the contractors assistance on filling out. Like the Electrical & Plumbing permit forms. Additionally, contractor will need to fill out the Waste Management Plan & provide Green Halo and Permit Declarations, included in the attachments. All encroachment, sidewalk, No-Parking, Crane Traffic Control Plan Permits & coordination with PG&E will be the responsibility of the contractor. Permit Conditional approval is included, refer to “Permit Application Approved”, also attached to this addendum for reference.

2-6. Q: Please confirm if the 5th-floor scope should be priced as a separate Bid Alternate on Document 00 4113. If yes, does this alternate encompass the restroom plumbing (P2.05), signage rebuilds (A405), and all window replacements/concrete repairs for that floor? A clear base/alternate split is required.

A: Most of the 5th-floor scope identified as Bid Alternate work is included under Bid Alternate Items A1, A2, A3, A4, and A5 (see Specification Section 00 4113-2). The only exception is the 5th-floor drinking fountain, which is included under Base Bid Item 3.

Sheets P2.05 and A405 encompass the 5th-floor restroom scope associated with Bid Alternate Item A5, with the exception of Drinking Fountain Detail 3, which remains part of the base bid.

2-7. Q: Please provide the executed CWA document or Master Labor Agreement reference, the specific applicable trade Locals, and any specific Skilled & Trained Workforce apprenticeship percentage targets.

A: Refer to “City of Berkeley Community Work Force Agreement”, see attachment.

2-8. **Q: Please clarify:**
- Is perimeter sealant replacement required for Type B windows ('to remain')?

A: No

- Which floor(s) do Type B and Type C windows occur on?

A: Window Type B occurs on floor 1 & Window Type C occurs at basement.

- Confirm if Type F windows are repair-in-place per Sheet A302 (East Elevation) or full aluminum replacement (Type FF) per Sheet A402.

A: Replace per sheet A402. Note quantity is only 2 windows. We will revise Sheet A302 and A402 to clarify.

2-9. **Q: Since repairs depend on a post-bid hammer sounding survey, please provide baseline quantities or unit-price allowances for Details 1, 2, 4, 5, and 6 to ensure level bidding. How will the City adjudicate change orders if actual quantities exceed the bid basis?**

A:
1/A505: 10 square feet

2/A505: 12 square feet

4/A505: 1 square foot

5/A505: 410 square feet

6/A505: 410 lineal feet

Contractor's hammer survey results to be documented with excess quantities to be approved for repair after confirmation by City/Architect.

2-10. Q: For the seismic gas valve installation, please clarify the allowable shutdown window (off-hours/weekends), maximum outage duration for the occupied building, and whether the City or Contractor is responsible for PG&E coordination and permit fees.

A: Shutdown window will need to be coordinated with City PM. Shutdown should be done off-hours. The building is occupied during the week from 7 am to 6 pm. The contractor is responsible for PG&E coordination and permit fees.

2-11. Q: Please confirm the final approved window model/specification (drawings reference Graham SR4700). Also, please clarify if we may propose "or equal" manufacturers, or if the requirement is restricted to "Graham ONLY." Additionally, confirm if a formal Landmarks Preservation Commission (LPC) mock-up review is required prior to production.

A: Graham SR4700 was approved by LPC. Design team does not know of an equal. If one is available, it can be evaluated for aesthetic and performance equivalence. Mock-up will be reviewed by City (department of public works) and Architect.

2-12. Q: Please clarify the delivery location and disposition path (turn over to Owner vs. contractor disposal) for: drinking fountains, 36" and 42" grab bars, window blind, and demolished steel windows.

A: Salvage drinking fountains and deliver to nearby facility located at 2134 Martin Luther King Jr Way, Berkeley, CA 94703. Blinds to remain and re-installed. Demolished steel windows to be disposed of in accordance with applicable regulations for hazardous waste (lead).

2-13. Q: Please clarify the following operational and security constraints:
- Noise/Dust: Are there specific tool/compressor restrictions due to adjacent occupied offices? What isolation methods are required for the 3rd floor Permit Service Center?

A: No tool/compressor restriction. Please reference section 01 5700 temp controls for more details.

- Phasing: Will 5th and 6th floor work be concurrent or phased? Is demobilization required between floors? Confirm 5th-floor staff relocation will be complete before work starts.

A: 5th floor will need to be phased. 6th floor can be concurrent or phased. Demobilization will not be required between floors if 5th floor scope is approved. 5th floor staff will be relocated as needed.

- Logistics & Security: Where are the designated curb staging zones? Will field personnel require City badges, background checks, or daily sign-in/out protocols?

A: The staging area shall be determined by the contractor. Badges and background checks will not be required; however, the contractor shall maintain daily sign-in sheets for all personnel on site. Security will be notified of construction activities, but contractors will not be required to sign in with security. Access cards will be provided to the contractor.

2-14. Q: Please confirm utility availability (power/Wi-Fi), restroom access, and any duration or relocation constraints once 6th-floor window work begins.

A: City has public Wi-Fi available. Contractor to have own Porta-potty in staging area.

2-15. Q: Lead has been confirmed in exterior paint and putty. Please provide the full lead-based paint and ACM inspection reports referenced on Sheet G000 for our abatement subcontractor's review.

A: See report form Acumen titled “Asbestos and Lead Survey Report” in the appendix.

2-16. Q: Since parge repairs are field-discovered during window removal, please confirm if estimators should assume a baseline quantity/percentage per window for the repair and elastomeric coating, or if this scope is entirely variable.

A: Actual quantities will be variable, and price of contract will be adjusted based on approved unit counts. See response to question 2-9 for baseline quantities to ensure level bids for concrete and parge coat repairs. Assume new elastomeric coating at 100% of exposed rough openings. Note that unit cost for 2/A505 (corner spalls) should include additional elastomeric coating outside the rough opening to cover these repairs.

2-17. Q: Please provide the estimated construction start and substantial completion dates.

A: Estimated construction start can be as soon as December 2026, but date may vary. Substantial completion is 140 days after commencement.

2-18. Q: Where to access the plans and project documents?

A: https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities/1947-center-st-window-replacement-project

ADDENDUM NO. 4

JUNE 5, 2026

The bid documents for Specification No. 26-11762-C for the 1947 Center St. Window Replacement Project are amended as follows:

1-1. DOCUMENT 00 4113 BID FORM - SCHEDULE OF BID PRICES

ITEM	DESCRIPTION	PRICE ($)
1	All Work for window abatement, removal, and replacement at the 6th Floor, in accordance with the Contract Documents.	
2	All Work for restrooms on the 6th floor, in accordance with the Contract Documents.	
3	All Work for drinking fountains at the Basement, 1st Floor, 2nd Floor, 4th Floor, 5th Floor, and 6th Floor, in accordance with the Contract Documents.	
4	All Work for the Automatic Gas Shutoff Valve, in accordance with the Contract Documents.	
	Total Bid Price: **(Bid Items 1-4)**	

1-2. DOCUMENT 00 0110 TABLE OF CONTENTS – TECHNICAL SPECIFICATION

03 01 30 REPAIRS OF CAST-IN-PLACE CONCRETE

1-3. SHEET A402 WINDOW SCHEDULE

NEW WINDOW SCHEDULE

TYPE	SIZE		FRAME MATERIAL	GLAZING		TOTAL NO.	DETAILS	COMMENTS
	WIDTH	HEIGHT		NO. OF LITES	TYPE			
AA	5'-0 13/16"	6'-8 1/16"	ALUMINUM	5	IGU	66	2/A502	
DD	4'-0 9/16"	6'-8 1/16"	ALUMINUM	4	IGU	22	1/A502	
EE	3'-0 7/8"	6'-8 1/16"	ALUMINUM	4	IGU	2	A502 SIM.	
FF	3'-0 7/8"	4'-1"	ALUMINUM	2	IGU	2	A502 SIM.	

QUESTIONS AWORKND RESPONSES:

2-1. Q: Does this project need to meet Title 24 requirements?

A: No, the state historical building code applies, so there are no energy code requirements.

2-2. Q: Can you please provide unprotected (unlocked) versions of the drawings so we can perform digital takeoffs, markup scope assignments for our subcontractors, and accurately bid this project? The current locked PDFs limit our ability to measure and annotate efficiently.

A: Unlocked drawing attached.

2-3. Q: As discussed during the pre-bid site visit, will it be acceptable to set up scaffolding on top of the 2nd Floor terrace/roof to reach the 5th and 6th Floor window scope of work on the North, East, and West elevations?

A: This will be determined by the contractor's means and methods. Note that a scaffolding engineer will need to evaluate and provide structural calculations. If suspended scaffolding is used an engineer will need to evaluate the bearing capacity

2-4. Q: Can you confirm whether there is any electrical work outside the drinking fountain scope of work?

A: The existing duplex outlet is all that's required but may need to be relocated to allow drinking fountain to fit.

2-5. Q: Please provide a specification section for the electrical scope of work on this project.

A: No spec, use electrical already in place.

2-6. Q: Please provide a specification section for the plumbing scope of work on this project.

A: Plumbing specifications are on P3.0.

2-7. Q: Please provide a specification section for the parge coat scope of work.

A: See spec section 03 01 30 for Repairs of Cast-in-place Concrete.

2-8. Q: For bidding purposes, please provide an estimated quantity of parge material to be removed per window for a single window application. If a quantity cannot be provided, please confirm whether the GC should carry an allowance for these repairs and advise how to proceed.

A: Deterioration varies from window to window. For parge coats, we have assumed 95% of sills, 10% of jambs, and 15% of head will require parge coat repairs (5/A505). For bidding, assume the following quantities distributed evenly between floors 5 and 6.

1/A505: 10 square feet
2/A505: 12 square feet
4/A505: 1 square foot
5/A505: 410 square feet
6/A505: 410 lineal feet

Contractor's hammer survey results to be documented with excess quantities to be approved for repair after confirmation by City/Architect.

2-9. Q: To this point Graham windows have been unresponsive to my pricing requests and in my past experience they won't provide pricing on a project this small. Would it be acceptable to price WINCO windows for this job?

A: Graham SR4700 was approved by LPC. Design team does not know of an equal. If one is available, it can be evaluated for aesthetic and performance equivalence.

2-10. Q:Since only the 6th and possibly the 5th floors are being replaced on this phase; in an effort to save the city a substantial amount of funds and make access to the mock-up more practical for all trades, inspections and testing agencies – can the mock-up be done on the 2nd floor elevation that has roof access and eliminates all the cost of equipment and additional set-ups? This also makes visual inspection of all processes more accessible.

A: The City is inclined to have the mock-up installed on the second floor. For bidding purposes, please assume the mock-up will be located on the second floor. The final window location is to be determined. - See Sheet A202.

Division Section Title

GENERAL REQUIREMENTS

01 1100	Summary of the Work
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings
01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 4500	Testing and Inspection
01 5200	Temporary Facilities
01 5526	Traffic Control
01 5700	Temporary Controls
01 7329	Cut-Patch
01 7413	Project Cleaning
01 7419	Construction Waste Management
01 7700	Contract Closeout
01 7800	Closeout Submittals

TECHNICAL SPECIFICATIONS

01 73 29	Cutting and Patching
02 41 13	Selective Demolition
07 21 00	Thermal Insulation
07 92 00	Joint Sealant
08 31 00	Access Doors and Panels
08 51 13	Aluminum Windows
08 83 00	Mirrors
09 21 16	Gypsum Board Assemblies
09 30 00	Tiling
09 90 00	Painting and Coating
09 96 53	Interior and Exterior Paint
10 14 00	Signage
10 21 13	Toilet Compartments
10 28 00	Commercial Toilet Accessories
03 01 30	Repairs of Cast-In-Place Concrete

APPENDICES

A. BIDDER AND CONTRACTOR CHECKLIST
B. ASBESTOS AND LEAD SURVEY REPORT BY ACUMEN INDUSTRIAL HYGIENE, APRIL 2025
C. PERMIT – CONDITIONAL APPROVAL
D. PERMIT DECLARATIONS FORM
E. PLIMBING FEE SCHEDULE
F. CONSTRUCTION WASTE MANGEMENT FORM (GREEN HALO)
G. CITY OF BERKELEY COMMUNITY WORKFORCE AGREEMENT

END OF DOCUMENT

SCHEDULE OF BID PRICES

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01 1100 (Summary of Work). Quote in figures only, unless words are specifically requested.

ITEM	DESCRIPTION	PRICE ($)
1	All Work for window abatement, removal, and replacement at the 6th Floor, in accordance with the Contract Documents.	
2	All Work for restrooms on the 6th floor, in accordance with the Contract Documents.	
3	All Work for drinking fountains at the Basement, 1st Floor, 2nd Floor, 4th Floor, 5th Floor, and 6th Floor, in accordance with the Contract Documents.	
4	All Work for the Automatic Gas Shutoff Valve, in accordance with the Contract Documents.	
	Total Bid Price: (Bid Items 1-4)	

Total Bid Price: (Bid Items 1-4)

_____
(Words)

Bid Alternates (Bid Alternates 1 through 5 are to be priced for City consideration to be included in the project at the sole discretion of the City. Bid Alternates 1 through 5 will not be used at bid opening.)

ITEM	DESCRIPTION	PRICE ($)
A1	Bid Alternate A1: All Work for window abatement, removal, and replacement at the 5th Floor South Elevation, in accordance with the Contract Documents.	
A2	Bid Alternate A2: All Work for window abatement, removal, and replacement at the 5th Floor East Elevation, in accordance with the Contract Documents.	
A3	Bid Alternate A3: All Work for window abatement, removal, and replacement at the 5th Floor West Elevation, in accordance with the Contract Documents.	
A4	Bid Alternate A4: All Work for window abatement, removal, and replacement at the 5th Floor North Elevation, in accordance with the Contract Documents.	
A5	Bid Alternate A5: All Work for restrooms on the 5th floor, in accordance with the Contract Documents.	

5. Subcontractors for work included in all Bid items are listed on Document 00 4330 (Subcontractors List) submitted herewith.

6. The undersigned Bidder understands that City reserves the right to reject this Bid, but that this Bid shall remain open and shall not be withdrawn for a period of sixty (60) calendar days from the date prescribed for its opening.

SECTION 03 01 30

REPAIR OF CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Corrosion-inhibiting coating and bonding agent.
   2. Patching mortar.
   3. Epoxy crack-injection materials.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices.
   1. Unit prices apply to authorized work covered by estimated quantities.
   2. Unit prices apply to authorized additions to and deletions from the Work as authorized by Change Orders.

B. General: Unit prices include the cost of preparing existing construction to receive the Work indicated and costs of field quality control required for units of Work completed.

C. Perform the following Work on unit price basis:
   1. Partial-depth, vertical-surface repairs. Payment based on vertical-surface elevation area of repair.
   2. Partial-depth, overhead-surface repairs (head/soffit). Payment based on overhead-surface area of repair.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordinate Work to ensure that adjacent areas are not adversely affected. Coordinate:
   1. With Owner’s Representative.
   2. With other trades:
      a. To ensure that work done by other trades is complete and ready for concrete repair Work.
      b. To avoid or minimize work on, or in immediate vicinity of, concrete repair Work in progress.
      c. To ensure that subsequent work will not adversely affect completed concrete repairs.

B. Preinstallation Conference: Conduct conference at Project site.
   1. Review methods and procedures related to concrete work, including, but not limited to, the following:
      a. Construction schedule.
      b. Verify concrete-repair specialist's personnel, equipment, and facilities needed to make progress and avoid delays.
      c. Site use, access, staging, and set-up location limitations.
      d. Forecast weather conditions.
      e. Concrete removal, surface preparation, and substrate condition.
      f. Repair types and proposed material/approaches for repair.

g. Materials, material application, sequencing, tolerances, and required clearances.
h. Special details.
i. Minimum curing period.
j. Temporary protection and repair of damaged concrete repairs.
k. Structural loading limitations.
l. Government limitations.
m. Quality-control program.
n. Coordination with building occupants.
o. Required submittals.
p. Testing and inspection requirements.
q. Hold points for observation by Architect.

1.4 ACTION SUBMITTALS

A. Product Data:
1. For each type of product.
a. Include construction details, material descriptions, chemical composition, physical properties, test data, and mixing, preparation, project application types consisting of horizontal, vertical or overhead locations and application instructions.

B. Shop Drawings:
1. Shoring and Bracing: Provide Drawings or documentation to ensure that structure and temporary supports withstand the anticipated loads during construction and the effect of demolition on the capacity of the structure. Submit design calculations, sealed by an engineer licensed in state of Project, for shoring and bracing where required by the extent of structural repairs or removal of deteriorated concrete and subsequent replacement.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For concrete-repair specialist.

B. Product Test Reports: For each cementitious patching mortar and crack-injection adhesive, for tests performed by manufacturer and witnessed by a qualified testing agency.

C. Field quality-control reports.

D. Quality-Control Program: Submit before work begins.

1.6 QUALITY ASSURANCE

A. Concrete-Repair Specialist Qualifications: Engage an experienced concrete-repair firm that employs installers and supervisors who are trained and approved by manufacturer to apply packaged patching-mortar crack-injection adhesive and corrosion-inhibiting treatments when performing the Work of this Section. Firm must have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience in only installing or patching new concrete is insufficient experience for concrete-repair work.
1. Field Supervision: Concrete-repair specialist firm must maintain experienced full-time supervisors on Project site during times that concrete-repair work is in progress.

B. Quality-Control Program: Prepare a written plan for concrete repair to systematically demonstrate the ability of personnel to properly perform repair work, including each phase or

process, protection of surrounding materials during operations, and control of debris and runoff during the Work. Describe in detail materials, methods, equipment, and sequence of operations to be used for each phase of the Work.

C. Hold points for Architect/Engineer Observation during work:
   1. Identification of repair areas.
   2. Concrete and reinforcing steel reinforcing surface preparation.
   3. Concrete Placement.

1.7 MOCKUPS

A. First mock-up to occur at the rough opening for the window mock-up specified in Section 085113.

B. For any remaining repair details, build first-in-place mockups for each concrete repair detail to demonstrate aesthetic effects and to set quality standards for materials and execution. Coordinate mockups so that multiple mockups are available for review on the same site visit, wherever possible.
   1. Concrete Removal and Patching Mockup: Remove a total of approximately 2 sq. ft. area of deteriorated concrete wall and prepare surfaces and reinforcing for patching. Patch approximately 1 sq. ft., so that Architect can observe surface preparation and completed patch on same site visit.
   2. Variations on Flat Concrete Patching Mockup: Repeat the Concrete Removal and Patching Mockup process above for each variation in configuration of concrete patches (2-sided corner, ornamental, etc.).
   3. Epoxy Crack Injection Mockup: Perform epoxy crack-injection material in two separate areas, each approximately 12 inches long.
   4. Photograph concealed portions of mock-up before concealing, and retain photographs at Site, regardless of observation by Architect and inspection by Testing Agency or Special Inspector.
   5. If Architect or Owner's Representative determines mock-up does not comply with requirements, modify mock-up or construct new mock-up until mock-up is approved. Remove and replace mock-ups that are not approved.
   6. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
   7. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials according to manufacturer's recommendations and in such manner as to prevent damage to materials or structure.

B. Handle and place materials in strict accordance with safety requirements required by material manufacturers; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.

C. For packaged materials:

1. Deliver materials to Site in original bags and containers with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
2. Store materials in original, undamaged bags or containers in a clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Manufacturer's standard packaging and covering is not considered adequate weather protection.
3. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, or handling. Reject and remove from Site new materials which have been exposed to moisture, or exhibit evidence of moisture contamination.
4. Conspicuously mark damaged, contaminated or opened bags or containers and remove from Site as soon as possible.
5. Remove materials that cannot be applied within stated shelf life from Site and replace with new materials.

1.9 FIELD CONDITIONS

A. Verify existing dimensions and details prior to the start of concrete repair Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor of changes.

B. Comply with Owner's limitations and restrictions for Site use and accessibility.

C. Environmental Limitations for Epoxies: Do not apply when air and substrate temperatures are outside limits permitted by manufacturer. During hot weather, cool epoxy components before mixing, store mixed products in shade, and cool unused mixed products to retard setting. Do not apply to wet substrates unless approved by manufacturer.
   1. Use only Class A epoxies when substrate temperatures are below or are expected to go below 40 deg F within eight hours.
   2. Use only Class A or B epoxies when substrate temperatures are below or are expected to go below 60 deg F within eight hours.
   3. Use only Class C epoxies when substrate temperatures are above and are expected to stay above 60 deg F for eight hours.

D. Cold-Weather Requirements for Cementitious Materials:
   1. Do not apply unless concrete surface and air temperatures are above 40 deg F and will remain so for at least 48 hours after completion of Work.

E. Hot-Weather Requirements for Cementitious Materials: Protect repair work when temperature and humidity conditions produce excessive evaporation of water from patching materials. Provide artificial shade and wind breaks, and use cooled materials as required. Do not apply to substrates with temperatures of 90 deg F and above.

1.10 CHANGES IN WORK

A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.

B. Notify Architect of conditions that may interfere with proper execution of the Work or jeopardize performance of the Work, prior to proceeding with the Work.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. For repair products, obtain each color, grade, finish, type, and variety of product from single source and from single manufacturer with resources to provide products of consistent quality in appearance and physical properties.

2.2 PATCHING MORTAR

A. Patching Mortar Requirements:
   1. Only use patching mortars that are recommended by manufacturer for each applicable horizontal, vertical, or overhead use orientation.
   2. Do not use proprietary repair materials that contain added gypsum.

B. Formed Vertical and Overhead Repairs:

   1. Polymer-Modified, Cementitious Self Consolidating Concrete; or Pourable, Pumpable, Self-Consolidating Repair Mortar; with Integral Corrosion Inhibitor and Pre-Blended Aggregate.
      a. Basis-of-Design Product: Subject to compliance with requirements, provide Sika Corporation; Sikacrete-211 SCC Plus or a comparable product by one of the following:
         1) Sika Corporation (Basis of Design).
         2) JE Tomes & Associates.
         3) Approved equal.

   2. Final repair shall contain coarse aggregate either pre-blended by manufacturer or added during batching.
      a. Coarse Aggregate for Patching Mortar: ASTM C33/C33M, Size No. 8, Class 5S washed aggregate. Add to patching-mortar mix only as permitted by patching-mortar manufacturer.

   3. Performance Requirements:
      a. Bond Strength: 300 psi per ASTM C1583, or 1,000 psi per ASTM C882.
      b. Compressive Strength: Minimum of 4,000 psi at 28 days per ASTM C39
      c. Flexural Strength: Minimum 1,000 psi per ASTM C293.
      d. Flowability:
         a. Self-consolidating with slump flow of approximately 20 to 30 inches.
         b. Capable of placement without mechanical vibration.
      e. Shrinkage: Less than or equal to 0.05% per ASTM C153.
      f. Rapid Chloride Permeability: Less than 650 Coulombs per ASTM C1202 AASHTO T-277.

C. Trowel-Applied Vertical and Overhead Repairs:

1. Polymer-Modified, Cementitious Patching Mortar: Packaged, dry mix for repair of concrete and that contains a latex additive as either a dry powder or a separate liquid that is added during mixing.
   a. Basis-of-Design Product: Subject to compliance with requirements, provide Sika Corporation; SikaTop-123 Plus or a comparable product by one of the following:
      1) Sika Corporation (Basis of Design).
      2) JE Tomes & Associates.
      3) Approved equal.

2. Performance Requirements:
   a. Bond Strength: Minimum 500 psi per ASTM C1583.
   b. Compressive Strength: Minimum 4,000 psi at 28 days per ASTM C109/C109M.
   c. Flexural Strength: Minimum 1,000 psi per ASTM C293.
   d. Shrinkage: Less than or equal to 0.05% per ASTM C153.
   e. Application Thickness for Vertical/Overhead Use:
      1) Minimum lift thickness: No more than 1/8 inch.
      2) Maximum lift thickness: No less than 1.5 inch.
   f. Durability: Suitable for exterior exposure including wet/dry cycling.

2.3 EPOXY CRACK-INJECTION MATERIALS

A. Epoxy Crack-Injection Adhesive: ASTM C881/C881M, bonding system Type I, free of VOCs.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. Sikadur-35 Hi-Mod LV; by Sika Corporation.
   b. Sikadur 52; by Sika Corporation.
   c. Kemko 068 Lo Vis IR; by ChemCo Systems, Inc.
   d. Approved equal.

2. Capping Adhesive: Product manufactured for use with crack-injection adhesive by same manufacturer.

2.4 MISCELLANEOUS MATERIALS

A. Curing Materials: For packaged repair materials.

B. Formwork Materials: Form-facing materials must comply with ACI 301 requirements.

C. Water: Potable.

D. Cleaning Agent: Commercial muriatic acid solution.

2.5 MIXES

A. General: Mix products, in clean containers, in accordance with manufacturer's written instructions.
   1. Do not add water, thinners, or additives unless recommended by manufacturer.
   2. When practical, use manufacturer's premeasured packages to ensure that materials are mixed in proper proportions. When premeasured packages are not used, measure

ingredients using graduated measuring containers; do not estimate quantities or use shovel or trowel as unit of measure.

3. Do not mix more materials than can be used within time limits recommended by manufacturer. Discard materials that have begun to set.

B. Dry-Pack Mortar: Mix required type(s) of patching-mortar dry ingredients with just enough liquid to form damp cohesive mixture that can be squeezed by hand into a ball but is not plastic.

PART 3 - EXECUTION

3.1 CONCRETE REPAIR

A. Have concrete-repair work performed only by qualified concrete-repair specialist.

B. Comply with manufacturers' written instructions for surface preparation and product application.

3.2 EXAMINATION

A. Notify Architect seven days in advance of dates when areas of deteriorated or delaminated concrete and deteriorated reinforcing bars will be located.

B. Locate areas of deteriorated or delaminated concrete using hammer or chain-drag sounding and mark boundaries. Mark areas for removal by simplifying and squaring off boundaries. At columns and walls, make boundaries level and plumb unless otherwise indicated.

C. Pachometer Testing: Locate at least three reinforcing bars using a pachometer, and drill test holes to determine depth of cover. Calibrate pachometer using depth of cover measurements, and verify depth of cover in removal areas using pachometer.

D. Perform surveys as the Work progresses to detect hazards resulting from concrete-repair work.

3.3 PREPARATION

A. Ensure that supervisory personnel are on-site and on duty when concrete-repair work begins and during its progress.

B. Protect persons, motor vehicles, surrounding surfaces of building being repaired, building site, plants, and surrounding buildings from harm resulting from concrete-repair work.

1. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
2. Use only proven protection methods appropriate to each area and surface being protected.
3. Provide temporary barricades, barriers, and directional signage to exclude public from areas where concrete-repair work is being performed.
4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of concrete-repair work.
5. Contain dust and debris generated by concrete-repair work and prevent it from reaching the public or adjacent surfaces.

6. Use water-mist sprinkling and other wet methods to control dust only with adequate, approved procedures and equipment that ensure that such water will not create a hazard or adversely affect other building areas or materials.
7. Protect floors and other surfaces along haul routes from damage, wear, and staining.
8. Provide supplemental sound-control treatment to isolate removal and dismantling work from other areas of the building.
9. Protect adjacent surfaces and equipment by covering them with heavy polyethylene film and waterproof masking tape. If practical, remove items, store, and reinstall after potentially damaging operations are complete.
10. Neutralize and collect alkaline and acid wastes for disposal off Owner's property.
11. Dispose of debris and runoff from operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

C. Existing Drains: Prior to the start of concrete-repair work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin concrete-repair work in an area until the drainage system is in working order.
1. Prevent solids, such as aggregate or mortar residue, from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from concrete-repair work.
2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

D. Preparation for Concrete Removal: Examine construction to be repaired to determine best methods to safely and effectively perform concrete-repair work. Examine adjacent work to determine what protective measures will be necessary. Make explorations, probes, and inquiries as necessary to determine condition of construction to be removed in the course of repair.
1. Verify that affected utilities have been disconnected and capped.
2. Inventory and record the condition of items to be removed for reinstallation or salvage.
3. Provide and maintain shoring, bracing, and temporary structural supports as required to preserve stability and prevent unexpected or uncontrolled movement, settlement, or collapse of construction being demolished and construction and finishes to remain. Strengthen or add new supports when required during progress of removal work.

E. Reinforcing-Bar Preparation: Remove loose and flaking rust from exposed reinforcing bars by high-pressure water cleaning, abrasive blast cleaning, needle scaling or wire brushing until only tightly adhered light rust remains.
1. Where section loss of reinforcing bar is more than 25 percent, or 20 percent in two or more adjacent bars, cut bars and remove and replace. Notify Architect for further direction.
2. Remove additional concrete as necessary to provide at least 3/4-inch clearance at exposed existing bars and replacement bars.
3. Splice replacement bars to existing bars in accordance with ACI 318 by lapping, welding, or using mechanical couplings.

3.4 REMOVAL OF CONCRETE

A. Do not overload structural elements with debris.

B. Adjust the outline of each repair area to create a simple, rectangular outline without reentrant corners.

1. Where the configuration of repairs would cause the elimination of reentrant corners to significantly increase the repair size, the Contractor may:
    a. Place one rectangular patch.
    b. Allow the first patch to cure for enough time so that most of the shrinkage occurs, to reduce the risk of a crack forming between the two patches.
    c. Place the second rectangular patch.
    d. Allow the second patch to cure for enough time that most of the shrinkage occurs.
    e. If a crack forms between the two rectangular patches, repair the crack according to applicable crack repair sections.

C. Saw-cut perimeter of areas indicated for removal to a depth of at least 1/2 inch. Make cuts perpendicular to concrete surfaces and no deeper than cover on reinforcement.

D. Remove deteriorated and delaminated concrete by breaking up and dislodging from reinforcement.

E. Remove additional concrete if necessary to provide a depth of removal of at least 2 inches over entire removal area.

F. Where half or more of the perimeter of reinforcing bar is exposed, bond between reinforcing bar and surrounding concrete is broken, or reinforcing bar is corroded, remove concrete from entire perimeter of bar and to provide at least 3/4-inch clearance around bar.

G. Test areas where concrete has been removed by tapping with hammer, and remove additional concrete until unsound and disbonded concrete is completely removed.

H. Provide surfaces with a fractured profile of at least 1/8 inch that are approximately perpendicular or parallel to original concrete surfaces. At columns and walls, make top and bottom surfaces level unless otherwise directed.

I. Thoroughly clean removal areas of loose concrete, dust, and debris.

3.5 APPLICATION OF BONDING AGENTS

A. Epoxy-Modified, Cementitious Bonding and Anticorrosion System: Apply to reinforcing bars by stiff brush in accordance with manufacturer's written instructions.
    1. Apply to reinforcing bars in two coats, allowing first coat to dry two to three hours before applying second coat.
    2. Take special care to coat the underside/backside of the totally exposed reinforcing bars.
    3. Apply patching mortar onto freshly placed cementitious bonding and anticorrosion system as soon as possible, and within the maximum recommended open time indicated in the manufacturer's instructions.

3.6 INSTALLATION OF PATCHING MORTAR

A. Place patching mortar as specified in this article unless otherwise recommended in writing by manufacturer.
    1. Provide forms where necessary to confine patch to required shape.
    2. Wet substrate and forms thoroughly and then remove standing water.

B. General Placement: Place patching mortar by troweling toward edges of patch to force intimate contact with edge surfaces. For large patches, fill edges first and then work toward center,

always troweling toward edges of patch. At fully exposed reinforcing bars, force patching mortar to fill space behind bars by compacting with trowel from sides of bars.

C. Vertical Patching: Place material in lifts of not more than 1-1/2 inches or less than 1/8 inch, and as recommended by patching mortar manufacturer. Do not feather edge.

D. Consolidation: After each lift is placed, consolidate material and screed surface.

E. Multiple Lifts: Where multiple lifts are used, score surface of lifts to provide a rough surface for placing subsequent lifts. Allow each lift to reach final set before placing subsequent lifts.

F. Finishing: Allow surfaces of lifts that are to remain exposed to become firm and then finish to a surface matching adjacent concrete.

G. Curing: Wet-cure cementitious patching materials, including polymer-modified cementitious patching materials, for not less than seven days by water-fog spray or water-saturated absorptive cover.

3.7 APPLICATION OF EPOXY CRACK-INJECTION MATERIALS

A. Clean cracks with oil-free compressed air or low-pressure water to remove loose particles.

B. Clean areas to receive capping adhesive of oil, dirt, and other substances that would interfere with bond.

C. Place injection ports as recommended by epoxy manufacturer, spacing no farther apart than thickness of member being injected. Seal injection ports in place with capping adhesive.

D. Seal cracks at exposed surfaces with a ribbon of capping adhesive at least 1/4 inch thick by 1 inch wider than crack.

E. Inject cracks wider than 0.010 inch to a depth of at least 2 inches.

F. Inject epoxy adhesive, beginning at widest part of crack and working toward narrower parts. Inject adhesive into ports to refusal, capping adjacent ports when they extrude epoxy. Cap injected ports and inject through adjacent ports until crack is filled.

G. After epoxy adhesive has set, remove injection ports and grind surfaces smooth.

3.8 FIELD QUALITY CONTROL

A. Testing Agency: Owner may engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:
   1. Packaged, Cementitious Patching-Mortar Application: Randomly selected sets of samples for each type of mortar required, tested in accordance with ASTM C928/C928M.
   2. Epoxy Crack-Injection Materials: Core-drilled samples to verify proper installation.
      a. Where samples are taken, refill holes with epoxy mortar.
   3. Product will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

END OF SECTION

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET, BERKELEY, CA 94704

SCOPE OF WORK

AT LEVEL 5 AND 6, ABATE AND REMOVE EXISTING STEEL WINDOWS. AT CONCRETE ROUGH OPENING REPAIR CONCRETE DAMAGE, REMOVE AND REPLACE FINISH SURROUNDING THE EXISTING WINDOWS. INSTALL NEW WINDOWS. PERIMETER SEALANT. AND REPAIR ADJACENT INTERIOR FINISHES.

AT LEVEL 5 AND 6 THE EXISTING RESTROOMS WILL BE RETROFITTED FOR ACCESSIBILITY.

REPLACE DRINKING FOUNTAINS AT FLOORS: BASEMENT, 1, 2, 4, 5, AND 6. SEE 3/P2.05.

1

GENERAL NOTES

1. THE BUILDING IS A REGISTERED HISTORIC RESOURCE. ALL WORK MUST CONFORM TO THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC BUILDINGS.
2. DRAWINGS AND ASSOCIATED SPECIFICATIONS APPLY ONLY TO THE SPECIFIC PROJECT IDENTIFIED IN TITLEBLOCK AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT SPECIFIC WRITTEN CONSENT OF ARCHITECT/ENGINEER. ARCHITECT/ENGINEER'S SUB-CONSULTANTS, AND OWNER. ANY UNAUTHORIZED USE OF ARCHITECT/ENGINEER'S WORK PRODUCT SHALL BE AT USER'S SOLE RISK AND USER SHALL INDEMNIFY ARCHITECT/ENGINEER AGAINST ANY LIABILITY OR LEGAL EXPOSURE RELATED TO THE UNAUTHORIZED USE.
3. DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY, ARE TO BE TAKEN AS A WHOLE, AND SHOULD INCLUDE SUFFICIENT INFORMATION NECESSARY FOR THE EXECUTION AND COMPLETION OF THE WORK IN A MANNER CONSISTENT WITH THE DESIGN INTENT. IN THE ABSENCE OF EXPLICIT OR REASONABLY INFERABLE INFORMATION ON DRAWINGS OR IN SPECIFICATIONS, PROMPTLY SEEK CLARIFICATION FROM ARCHITECT/ENGINEER AS A REQUEST FOR INFORMATION.
4. SPECIFIED PRODUCTS ARE BELIEVED TO HAVE PROPERTIES ADEQUATE FOR THE INTENDED PURPOSE. IF CONTRACTOR HAS PREVIOUSLY FOUND SPECIFIED PRODUCTS TO BE UNACCEPTABLE FOR ANY REASON, CONTRACTOR SHALL PROMPTLY INFORM ARCHITECT/ENGINEER AS A REQUEST FOR SUBSTITUTION.
5. PROMPTLY REPORT TO ARCHITECT/ENGINEER AS A REQUEST FOR INFORMATION KNOWN OR SUSPECTED ERRORS, INCONSISTENCIES, OR OMISSIONS WITHIN OR BETWEEN DRAWINGS AND SPECIFICATIONS AS WELL AS KNOWN OR SUSPECTED VARIANCE OF DRAWINGS AND SPECIFICATIONS FROM EXISTING CONDITIONS. FOR BIDDING PURPOSES ONLY AND UNLESS OTHERWISE DIRECTED BY ARCHITECT/ENGINEER, THE MORE STRINGENT REQUIREMENT OR BETTER QUALITY SHALL TAKE PRECEDENCE.
6. DIMENSIONS, QUANTITIES, AND GEOMETRIES PROVIDED FOR EXISTING CONSTRUCTION ARE BASED ON ORIGINAL DRAWINGS AND LIMITED FIELD DOCUMENTATION BY ARCHITECT/ENGINEER. FIELD VERIFY APPLICABLE INFORMATION PRIOR TO SUBMITTING A BID, ORDERING MATERIALS, OR OTHERWISE COMMITTING RESOURCES TO THE WORK. PROVIDED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
7. PROVIDE LABOR, MATERIALS, EQUIPMENT, SUPERVISION, AND COORDINATION DIRECTLY AND INCIDENTALLY NECESSARY TO PERFORM THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
8. ACTIVITIES OR DUTIES OF ARCHITECT/ENGINEER OR TESTS, INSPECTIONS, OR APPROVALS REQUIRED OR PERFORMED BY THIRD PARTIES SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
9. SECURE AND PAY FOR ALL PERMITS, FEES, LICENSES, AND INSPECTIONS BY GOVERNMENT AGENCIES NECESSARY FOR PROPER AND COMPLIANT EXECUTION AND COMPLETION OF THE WORK.
10. COMPLY WITH AND GIVE NOTICES REQUIRED BY LAWS, STATUTES, ORDINANCES, CODES, RULES AND REGULATIONS, AND LAWFUL ORDERS OF AUTHORITIES HAVING JURISDICTION APPLICABLE TO THE WORK.
11. SUPPLY OWNER WITH SAFETY DATA SHEETS (SDS) FOR EACH CHEMICAL THAT WILL BE BROUGHT ONTO OWNER'S PROPERTY.
12. CONTRACTOR IS SOLELY RESPONSIBLE FOR, AND SHALL HAVE SOLE CONTROL OVER, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK. ARCHITECT/ENGINEER HAS NO SUCH RESPONSIBILITIES. SPECIFIC INSTRUCTION THAT MAY BE GIVEN IN CONTRACT DOCUMENTS CONCERNING CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES SHALL NOT RELIEVE CONTRACTOR OF ITS RESPONSIBILITY FOR CONTROL AND COORDINATION.
13. CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE WORK. ARCHITECT/ENGINEER HAS NO SUCH RESPONSIBILITIES BEYOND ITS OWN EMPLOYEES.
14. THE WORK WILL BE PERFORMED AT AN OCCUPIED AND OPERATIONAL FACILITY. COORDINATE CONSTRUCTION ACTIVITIES AND PROCEDURES WITH OWNER TO (A) MAINTAIN UNOBSTRUCTED EXISTING MEANS OF EGRESS FROM FACILITY; (B) COMPLY WITH FACILITY'S EXISTING SECURITY PROCEDURES AND REQUIREMENTS; AND (C) PROVIDE NOT LESS THAN 48 HOURS ADVANCE NOTICE TO AND GAIN APPROVAL FROM OWNER PRIOR TO CONSTRUCTION ACTIVITIES THAT WILL DISRUPT NORMAL USE OF FACILITY (INCLUDING EXCEPTIONAL NOISE AND/OR VIBRATIONS, UNCONTROLLED DUST, OBTRUSIVE ODORS, OR INTERRUPTIONS OF UTILITIES). WORK NOT COORDINATED AND APPROVED IN ADVANCE THAT DISRUPTS THE NORMAL USE OF THE FACILITY MAY BE STOPPED UNTIL PROPER COORDINATION AND APPROVAL IS ACHIEVED. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS INCURRED AS A CONSEQUENCE OF STOPPAGE.
15. SUBMIT PROPOSED DEMOLITION AND CONSTRUCTION SCHEDULES TO OWNER AND ARCHITECT/ENGINEER PRIOR TO BEGINNING WORK. PROCEED WITH THE WORK ONLY AFTER A MUTUALLY AGREEABLE SCHEDULE HAS BEEN ESTABLISHED. REGULARLY REVISE SCHEDULE TO REFLECT PROGRESS OF THE WORK.
16. MAINTAIN PREMISES AND SURROUNDING AREA FREE FROM ACCUMULATIONS OF WASTE MATERIAL AND RUBBISH RESULTING FROM THE WORK.
17. COORDINATE LOCATIONS OF ON-SITE STORAGE OF MATERIALS AND EQUIPMENT WITH OWNER SO AS TO NOT UNREASONABLY ENCUMBER FACILITY OR SITE.
18. DO NOT ALLOW CONSTRUCTION MATERIALS, EQUIPMENT, OR PROCEDURES TO OVERLOAD OR EXCEED THE STRUCTURAL CAPACITY OF EXISTING CONSTRUCTION TO REMAIN, PARTIALLY COMPLETED WORK, OR COMPLETED WORK. MAKE INSPECTIONS AND/OR PERFORM ANALYSES AND TESTS NECESSARY TO VERIFY THAT EXISTING ELEMENTS HAVE ADEQUATE CAPACITY TO SUPPORT PROPOSED CONSTRUCTION LOADS.
19. DRAWINGS ILLUSTRATE THE COMPLETED WORK WITH ELEMENTS IN THEIR FINAL INTENDED POSITIONS. PROVIDE SHORING, BRACING, SUPPORT, AND SEQUENCE WORK AS REQUIRED TO MAINTAIN THE STRUCTURAL INTEGRITY OF NEW OR EXISTING CONSTRUCTION DURING THE WORK.
20. TEMPORARILY RELOCATE AND RESTORE EXISTING EQUIPMENT AND APPURTENANCES (WHETHER OR NOT SHOWN ON THE DRAWINGS) THAT OBSTRUCT ACCESS TO PORTIONS OF THE WORK.
21. DEVELOP, IMPLEMENT, ERECT, AND MAINTAIN SAFEGUARDS TO PREVENT DAMAGE, INJURY, OR LOSS RESULTING FROM THE WORK TO (A) WORKERS, OCCUPANTS, PASSERS-BY, AND OTHER PERSONS; (B) IN-PROGRESS WORK, MATERIALS, AND EQUIPMENT UNDER CARE, CUSTODY, AND CONTROL OF THE CONTRACTOR (WHETHER ON OR OFF SITE); AND (C) OTHER PROPERTY AT THE SITE OR ADJACENT THERETO NOT DESIGNATED AS PART OF THE WORK FOR REMOVAL, RELOCATION, OR REPLACEMENT. IN THE EVENT OF DAMAGE, INJURY, OR LOSS, PROMPTLY NOTIFY ARCHITECT/ENGINEER AND PRESENT PROPOSED REMEDY.
22. DEVELOP, IMPLEMENT, ERECT, AND MAINTAIN SAFEGUARDS TO PROVIDE FOR WATERTIGHT INTEGRITY OF WORK IN PROGRESS. IN THE EVENT OF DAMAGE, INJURY, OR LOSS, PROMPTLY NOTIFY ARCHITECT/ENGINEER AND PRESENT PROPOSED REMEDY.
23. IN AN EMERGENCY AFFECTING SAFETY OF PERSONS OR PROPERTY, ACT TO PREVENT OR STOP FURTHER DAMAGE, INJURY, OR LOSS.
24. ALL WORK SHALL BE SUBJECT TO REVIEW BY ARCHITECT/ENGINEER BEFORE IT IS CONCEALED BY OTHER WORK AND/OR MEANS OF ACCESS IS REMOVED. COORDINATE MANDATORY REVIEWS WITH ARCHITECT/ENGINEER PRIOR TO START OF CONSTRUCTION. PROVIDE REASONABLE NOTIFICATION TO ARCHITECT/ENGINEER TO ALLOW FOR SUCH REVIEW AS WORK PROCEEDS.
25. PROMPTLY CORRECT WORK REJECTED BY ARCHITECT/ENGINEER OR FAILING TO CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS. ASSOCIATED COSTS (INCLUDING ADDITIONAL TESTING OR INSPECTIONS, COST OF UNCOVERING AND CORRECTION, AND COMPENSATION FOR ARCHITECT/ENGINEER'S SERVICES AND EXPENSES MADE NECESSARY THEREBY) SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

EXISTING CONSTRUCTION

1. EXISTING ITEMS ARE INDICATED AS EXISTING OR (E). ITEMS WITHOUT THIS INDICATION ARE NEW CONSTRUCTION. FOR CLARITY, SOME NEW CONSTRUCTION MAY BE INDICATED AS (N).
2. DIMENSIONS OF THE EXISTING CONSTRUCTION SHOWN ARE BASED ON LIMITED FIELD MEASUREMENTS. ACTUAL DIMENSIONS AND ELEVATIONS OF THE EXISTING CONSTRUCTION VARY. FIELD-VERIFY EXISTING DIMENSIONS AND CONDITIONS PRIOR TO STARTING THE WORK. ADJUST DIMENSIONS OF THE NEW CONSTRUCTION TO FIT THE EXISTING CONDITIONS.
3. LOCATIONS OF EXISTING CONCRETE REINFORCING AND EMBEDDED STEEL AND EMBEDDED UTILITIES ARE NOT KNOWN. NOT ALL OBSTRUCTIONS ARE NOTED ON PLANS. WHERE SHOWN ON DRAWINGS, THE DEPICTIONS ARE DIAGRAMMATIC. CONTRACTOR SHALL USE NON-DESTRUCTIVE TECHNIQUES TO POSITIVELY IDENTIFY EMBEDDED ITEMS PRIOR TO DEMOLITION. CONTACT THE CONTRACTING OFFICER IF EMBEDDED ITEMS INTERFERE WITH WORK. REINFORCING (SUCH AS, BUT NOT LIMITED TO, REINFORCING TIES) SHALL BE FABRICATED TO FIT ACTUAL CONDITIONS. CONTRACTOR SHALL IDENTIFY OBSTRUCTIONS AND EMBEDDED ITEMS IN FIELD PRIOR TO DEMOLITION.
4. DURING ALL STAGES OF CONSTRUCTION, PROTECT THE EXISTING BUILDING ELEMENTS THAT ARE TO REMAIN. DAMAGE TO THE EXISTING ELEMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE NATIONAL PARK SERVICE AT THE CONTRACTOR'S EXPENSE.
5. DETAILS NOT SHOWN, OR DETAILED ON DRAWINGS, OR CALLED FOR IN THESE NOTES SHALL BE CONSTRUCTED TO SAME SIZE AND CHARACTER AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN, DETAILED OR SPECIFIED.
6. PROVIDE OTHER MATERIALS NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR COMPLETE AND PROPER INSTALLATION OF WORK AS SELECTED BY THE CONTRACTOR AND SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER.

HAZARDOUS MATERIALS

1. HAZARDOUS MATERIALS REPORTS HAVE BEEN PREPARED FOR THIS SITE. THE REPORT(S) ARE INCLUDED IN THE SUPPLEMENTAL INFORMATION DOCUMENTS.
2. THE PROJECT MANUAL CONTAINS INFORMATION ON EXISTING HAZARDOUS CONDITIONS AND HAZARDOUS MATERIAL PROCEDURES, REFER TO THE HAZARDOUS MATERIALS SPECIFICATION SECTIONS.
3. HAZARDOUS MATERIALS ARE TYPICALLY NOT CALLED OUT IN THE DRAWINGS. REFER TO THE REPORT(S) FOR LOCATIONS. ANY DRAWING CALLOUTS TO SPECIFIC MATERIALS OR LOCATIONS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR SPECIFIED TREATMENT AT ALL LOCATIONS, WHETHER CALLED OUT OR NOT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT PERSONNEL WITHIN THE WORK AREA AND ADJACENT OCCUPIED STRUCTURES ARE PROTECTED FROM EXPOSURE TO ANY HAZARDOUS MATERIALS FROM THE WORK OF THIS PROJECT.
5. IF UNKNOWN MATERIALS ARE DISCOVERED THAT MAY BE HAZARDOUS, THAT ARE OUTSIDE THE SCOPE OF THE REPORTS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND CEASE WORK UNTIL CONDITIONS CAN BE MAINTAINED IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

MATERIALS DESCRIPTIONS

INTERIOR PAINT	ProMar 200 Zero VOC Interior Latex by Sherwin-Williams
ACRYLIC SEALANT	PowerHouse Siliconized Acrylic Latex by Sherwin-Williams
JOINT FILLER	Fastflex Closed-Cell Polyethylene by Nomaco
SILICONE SEALANT	SilPruf SCS2000
BACKER ROD	SofRod BY NOMACO
ELASTOMERIC COATING	Sika Thorolastic 750 (MULTIPLE COLORS AND TEXTURES TBD)
REPAIR MORTAR	Sikatop 123 Plus
PARGE COAT	Sikatop 123 Plus (TEXTURED FINISH)
REBAR CORROSION INHIBITOR	Sika Armatec 110 EpoCem or Sikagard P 8100 AP
INSULATING GLASS UNIT	6mm CLEAR GLASS WITH SB70 - 12mm ARGON-FILLED GAP - 6mm CLEAR GLASS
ALUMINUM WINDOWS	Graham Windows SR6700 SERIES STEEL REPLICA

Sheet List Table

Sheet Number	Sheet Title
G000	TITLE SHEET
G001	CONDITIONS OF APPROVAL
G002	CODE SUMMARY
G003	ACCESSIBILITY CLEARANCE
G003.1	RESTROOM SIGNAGE DETAILS
G004	KEY PLANS
A200	BASEMENT FLOOR PLAN
A201	FIRST FLOOR PLAN
A202	SECOND FLOOR PLAN
A203	THIRD FLOOR PLAN
A204	FOURTH FLOOR PLAN
A205	FIFTH FLOOR PLAN
A206	SIXTH FLOOR PLAN
A301	SOUTH ELEVATION
A302	EAST ELEVATION
A303	WEST ELEVATION
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A502	WINDOW REPLACEMENT ELEVATIONS
A503	WINDOW REPLACEMENT DETAILS
A505	CONCRETE REPAIR DETAILS
A860	INTERIOR RESTROOM DETAILS
P1.00	PLUMBING LEGEND, SYMBOLS, GENERAL NOTES
P2.05	5TH LEVEL RESTROOM PLUMBING PLANS
P2.06	6TH LEVEL RESTROOM PLUMBING PLANS
P3.00	PLUMBING FIXTURE SCHEDULE AND SPECIFICATIONS

1

1 VICINITY MAP
SCALE: N.T.S. CREATED BY NEARMAP ON 9/30/2024. ANNOTATIONS BY WJE

N
TRUE NORTH

2 SITE MAP
SCALE: N.T.S. CREATED BY NEARMAP ON 9/30/2024. ANNOTATIONS BY WJE

N
TRUE NORTH

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LICENSED ARCHITECT
ANDREW J. BASHA
No. C 36411
Exp. 03/31/25
STATE OF CALIFORNIA

Date signed: 10/09/2026

Consultants

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

NOLL & TAM ARCHITECTS
729 HEINZ AVENUE
BERKELEY, CA 94710

Mark	Date	Description
	06/05/2026	BID ADDENDUM
	02/18/2026	ISSUED FOR 3RD CORRECTION
1	01/09/2026	PLAN CHECK COMMENTS
	11/14/2025	FOR PERMIT

THIS SHEET PLOTS FULL SIZE AT 22X34 (INCHES)

Project No. 2024.0881.0
Date 17 NOV 2025 PLAN CHECK COMMENTS
Drawn KEL/JAW
Checked AJB
Scale As Noted

Sheet Title TITLE SHEET

Sheet No. G000

Posted: 11/14/2025 7:15 PM by LeBlanc, Katie File Name: P:\2024\0881 0 - 1947 CENTER ST - ENERGY RETROFIT (ABJ)\5 Construction Documents\1 Drawings\Sheets\2024_0881_0-G000.dwg

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ATTACHMENT 1

FINDINGS AND CONDITIONS

I. General Administrative Conditions		Regulation Source	Timing/ Implementation	Enforcement/Monitoring
1.	**Project Approval**. This Structural Alteration Permit approval is for 1947 Center Street, as substantially presented and described to the Landmarks Preservation Commission on May 1, 2025 ("Approval Date", For any condition herein that requires preparation of a Final Plan where the project applicant has submitted a conceptual plan, the project applicant shall submit final plan(s) in substantial conformance with the conceptual plan, but incorporate the modifications required bythe conditions herein for approval by the City. In addition to review by staff, the final plan shall be reviewed by the Chair of the Landmarks Preservation Commission to verify substantial compliance with the scope of the Commission's approval and accompanying action on the Structural Alteration Permit.	City of Berkeley	On-Going	Land Use Planning
2.	**Approval Limited to Proposed Project.** This Permit authorizes only the proposed project described in the application. In no way does an approval authorize other uses, structures or activities not included in the project description.	City of Berkeley BMC Sections 23.404.060	On-Going	Land Use Planning
3.	**Compliance Required.** All land uses and structures in Berkeley must comply with the Zoning Ordinance and all applicable City ordinances and regulations. Compliance with the Zoning Ordinance does not relieve an applicant from requirements to comply with other federal, state, and City regulations that also apply to the property.	City of Berkeley	On-Going	Land Use Planning
4.	**Conformance to Approved Final Plan.** All work performed under an approved permit shall be in compliance with the approved final plan and any Conditions of Approval.	City of Berkeley BMC Section 23.404.060. B.4	On-Going	Land Use Planning
6.	**Permit Revocation.** The City may revoke or modify a discretionary permit for completed projects due to: 1) violations of permit requirements; 2) Changes to the approved project; and/or 3) Vacancy for one year or more. However, no lawful residential use can lapse, regardless of the length of time of the vacancy. Proceedings to revoke or modify a permit may be initiated by the Landmarks Preservation Commission (LPC), or City Council referral.	City of Berkeley BMC Section 23.404.080	On-Going	Land Use Planning
8.	**Exercise and Expiration of Permits** A permit authorizing a land use is exercised when both a valid City business license is issued (if required) and the land use is established on the property. A. A permit authorizing a land use is exercised when both a valid City business license is issued (if required) and the land use is established on the property. B. A permit authorizing construction is exercised when both a valid City building permit (if required) is issued and construction has lawfully begun. C. The Zoning Officer may declare a permit lapsed if it is not exercised within one year of its issuance, except if the applicant has applied for a building permit or has made a substantial good faith effort to obtain a building permit and begin construction. The Zoning Officer may declare a permit lapsed only after 14 days written notice to the applicant. A determination that a permit has lapsed may be appealed to the ZAB in accordance with Chapter 23.410 (Appeals and Certification). D. A permit declared lapsed shall be void and of no further force and effect. To establish the use or structure authorized by the lapsed permit, an applicant must apply for and receive City approval of a new permit.	City of Berkeley BMC Section 23.404.060 (C) "Time Limits"	On-Going	Land Use Planning
9.	**Hold Harmless.** The permittee agrees as a condition of approval of this application to indemnify, protect, defend with counsel selected by the City, and hold harmless, the City, and any agency or instrumentality thereof, and its elected and appointed officials, officers, employees and agents, from and against any and all liabilities, claims, actions, causes of action, proceedings, suits, damages, judgments, liens, levies, costs and expenses of whatever nature, including reasonable attorney's fees and disbursements (collectively, "Claims") arising out of or in any way relating to the approval of this application, any actions taken by the City related to this entitlement, or any environmental review conducted under the California Environmental Quality Act, Public Resources Code Section 210000 et seq., for this entitlement and related actions. The indemnification shall include any Claims that may be asserted by any person or entity, including the permittee, arising out of or in connection with the approval of this application, whether or not there is concurrent, passive or active negligence on the part of the	City of Berkeley	On-Going	Land Use Planning
	City, and any agency or instrumentality thereof, and its elected and appointed officials, officers, employees and agents. The permittee's duty to defend the City shall not apply in those instances when the permittee has asserted the Claims, although the permittee shall still have a duty to indemnify, protect and hold harmless the City.			

II. At Building Permit Submittal		Regulation Source	Timing/Implementation	Enforcement/Monitoring
1.	**Conditions of Approval on Building Permit Plan Submittal** **Structural Alteration Permit.** The Conditions of Approval for this Structural Alteration Permit shall be printed on the *second* sheet of each plan set submitted for a building permit pursuant to this Structural Alteration Permit, under the title 'Structural Alteration Permit Conditions.'	City of Berkeley	At the Time of Building Permit Submittal	Building & Safety/Land Use Planning
2.	**Project Liaison.** The applicant shall include in all building permit plans and post onsite the name and telephone number of an individual empowered to manage construction-related complaints generated from the project. The individual's name, telephone number, and responsibility for the project shall be posted at the project site for the duration of the project in a location easily visible to the public. The individual shall record all complaints received and actions taken in response, and submit written reports of such complaints and actions to the project planner on a weekly basis. **Please designate the name of this individual below:** ☐ **Project Liaison** Uriel Gonzales (510) 960 3931 Name Phone #	City of Berkeley	At the Time of Building Permit Submittal	Building & Safety/Land Use Planning
3.	**Construction and Demolition Diversion.** The applicant shall submit a Construction Waste Management Plan that meets the requirements of BMC Chapter 19.37 including 100% diversion of asphalt, concrete, excavated soil and land-clearing debris and a minimum of 65% diversion of other nonhazardous construction and demolition waste. Waste Management form will be provided by the Contractor after bidding but before construction	City of Berkeley BMC Chapter 19.37	At Building Permit Submittal	Building & Safety Division

III. During Construction A. Building & Safety Division		Regulation Source	Timing/ Implementation	Enforcement/Monitoring
1	**Construction Hours.** Construction activity shall be limited to between the hours of 7:00 AM and 6:00 PM on Monday through Friday, and between 9:00 AM and 4:00 PM on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.	City of Berkeley	During Construction	Building & Safety
2.	**Construction Hours- Exceptions**. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days.	City of Berkeley	During Construction	Building & Safety
3.	**Construction / No Parking Permits**. Contact the Permit Service Center (PSC) at 1947 Center Street, Third Floor or (510) 981-7500 for details on obtaining Construction/No Parking Permits (and associated signs and accompanying dashboard permits). Please note that the Zoning Officer and/or Traffic Engineer may limit off-site parking of construction-related vehicles if necessary to protect the health, safety or convenience of the surrounding neighborhood. A current copy of this Plan shall be available at all times at the construction site for review by City Staff.	City of Berkeley	During Construction	Building & Safety

IV. During Construction B. During Construction: Public Works		Regulation Source	Timing/ Implementation	Enforcement/Monitoring
1.	**Site Debris.** All piles of debris, soil, sand, or other loose materials shall be covered at night and during rainy weather with plastic at least one-eighth millimeter thick and secured to the ground.	City of Berkeley	During Construction	Public Works
2.	**Street & Sidewalk Damages.** Subject to approval of the Public Works Department, the applicant shall repair any damage to public streets and/or sidewalks by construction vehicles traveling to or from the project site.	City of Berkeley	During Construction	Public Works
3.	**Underground Utilities.** If underground utilities leading to adjacent properties are uncovered and/or broken, the contractor involved shall immediately notify the Public Works Department and the Building & Safety Division, and carry out any necessary corrective action to their satisfaction	City of Berkeley	During Construction	Public Works
4.	**Hauling of Debris.** Trucks hauling debris, soil, sand, or other loose materials shall be covered or required to maintain at least two feet of board.	City of Berkeley	During Construction	Public Works

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LICENSED ARCHITECT
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No. C-14084
REN. 01-31-27
STATE OF CALIFORNIA

Date signed: 11/01/2025

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

CITY OF BERKELEY

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	11/14/2025	FOR PERMIT

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Checked
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Sheet Title PLANNING: CONDITIONS OF APPROVAL

Sheet No. **G001**

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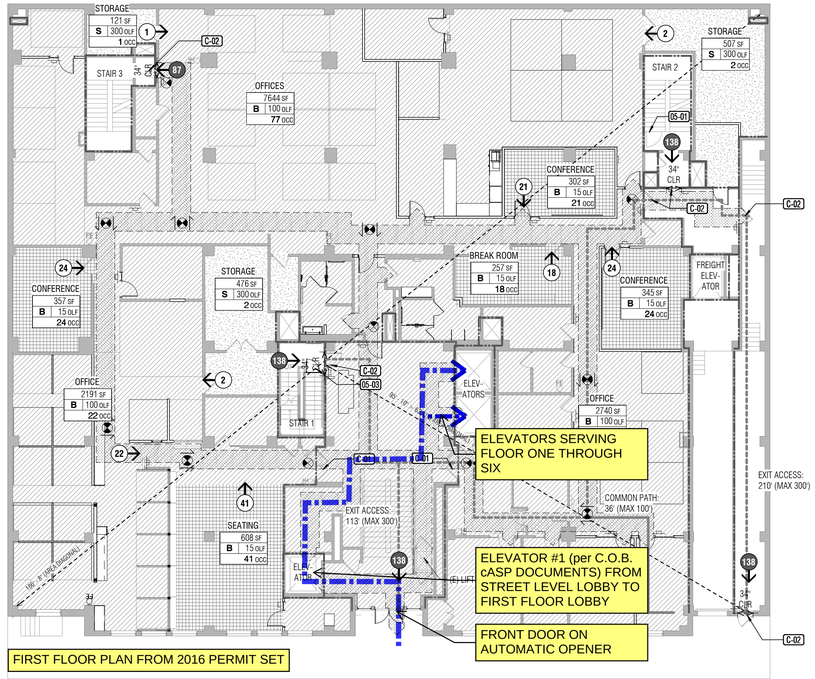
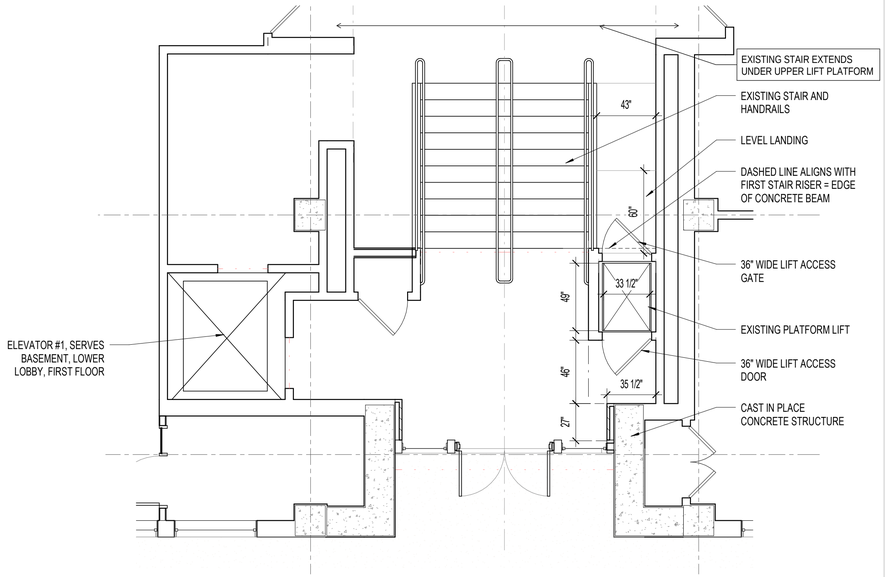
PATH OF TRAVEL



FIRST FLOOR PLAN FROM 2016 PERMIT SET



ENLARGED LOBBY PLAN

NOT TO SCALE

FIRE SAFETY DURING CONSTRUCTION

1. Smoking shall be prohibited except in approved areas. Signs shall be posted in accordance with §310. [§3305.1]

2. Combustible debris, rubbish and waste material shall not be accumulated within buildings. [§3305.2.1]

3. Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work. [§3305.2.2]

4. Rubbish containers with a capacity of more than 40 gallons are used to temporarily collect combustible waste materials shall have a close-fitting lid and either be constructed of noncombustible materials or be ASTM E1354 listed. [§3305.2.3]

5. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container. [§3305.2.4]

6. Cooking shall be prohibited except in approved designated cooking areas separated from combustible materials by a minimum of 10 feet. [§3305.8]

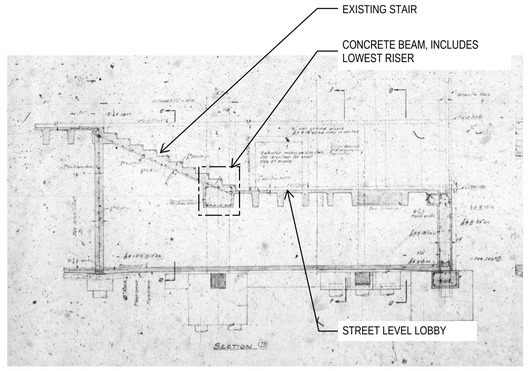
7. Portable generators used at construction and demolition sites shall comply with §1204. [§3309.1]

- Portable generators manufactured after January 1, 2021, shall be listed and labeled in accordance with UL 2201. [§1204.2]

- Portable generators shall not be operated within buildings or enclosed areas. [§1204.5]

- A listed portable fire extinguisher complying with §906 with a minimum rating of 2-A:20-B:C shall be provided not more than 50 feet from the portable generator. [§1204.10]

SEE HARDSHIP APPLICATIN FORM RETURNED WITH THIRD COMMENT LIST

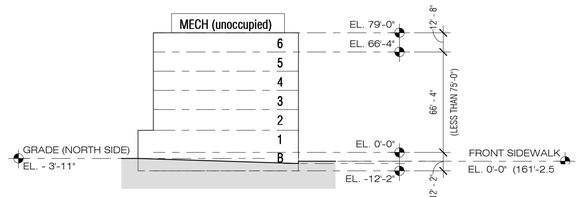


STRUCTURAL SECTION THROUGH ENTRY STAIR

NOT TO SCALE - FROM 1946 DRAWINGS

PROJECT SUMMARY AND DATA

PROJECT TITLE:	City of Berkeley, 1947 Center Street, Historic Steel Window Replacement
CONSTRUCTION TYPE:	II-A (1-HR)
SPRINKLERS:	Fully Sprinklered per NFPA 13 Automatic fire alarm system per NFPA 72
BUILDING GROSS FLOOR AREA TOTAL:	103,424 SF
FLOOR AREAS:	Basement: +/- 8,000 SF 1st Floor: +/- 15,000 SF 2nd Floor +/- 10,000 SF 3rd Floor +/- 14,000 SF 4th Floor +/- 14,000 SF 5th Floor +/- 14,000 SF 6th Floor +/- 14,000 SF
BUILDING HEIGHT:	6 Stories + Basement
OCCUPANCY TYPES:	Business Group B



CONCEPTUAL BUILDING SECTION
(NOT TO SCALE)

CODE COMPLIANCE

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2024

ALL WORK SHALL CONFORM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES

2022	CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24, C.C.R.
2022	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, C.C.R. (2021 INTERNATIONAL BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ELECTRIC CODE (CEC), PART 3, TITLE 24, C.C.R. (2020 NATIONAL ELECTRIC CODE AND 2022 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R. (2021 IAPMO UNIFORM MECHANICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R. (2021 IAPMO UNIFORM PLUMBING CODE AND 2022 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ENERGY CODE (CENC), PART 6, TITLE 24, C.C.R.
2022	CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24, C.C.R. (2021 INTERNATIONAL FIRE CODE AND 2022 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR (2021 INTERNATIONAL EXISTING BUILDING CODE AND 2022 CALIFORNIA AMENDMENTS)
2019	TITLE 19, C.C.R., REGULATIONS OF THE STATE FIRE MARSHAL
2022	CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24, C.C.R.
2022	CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, C.C.R.
2019	ASME A17.1/CSA B44 SAFETY CODE FOR ELEVATORS AND ESCALATORS (PER 2022 CBC PART 2 CH 35) NOTE: CAL/OSHA ELEVATOR UNIT ENFORCES CCR TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	SPRINKLER SYSTEMS (CA AMENDED)	2022 EDITION
NFPA 14	STANDPIPE & HOSE SYSTEMS, 2013 EDITION (CA AMENDED)	2016 EDITION
NFPA 24	PRIVATE FIRE SERVICE MAINS & APPURTANENCES (CA AMENDED)	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)	2022 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMENDED)	2015 EDITION
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES	2003 EDITION
UL 521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	2005 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80

SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

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Date signed: 02/13/2026

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		FOR PERMIT

0 1/2" 1" 2"
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Sheet Title
CODE SUMMARY

Sheet No. G002
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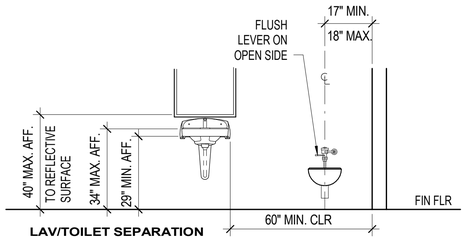
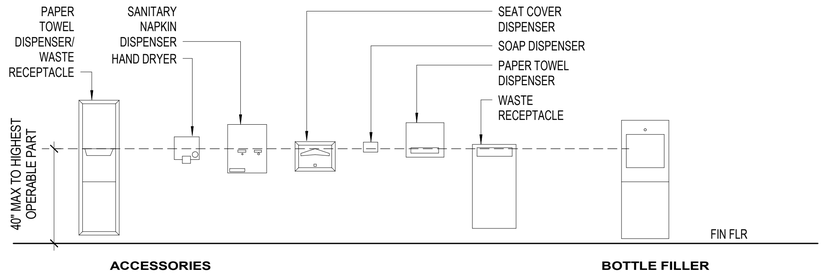
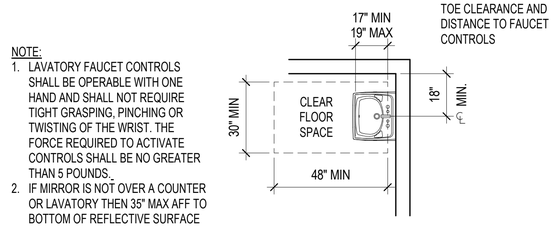


LAV/TOILET SEPARATION

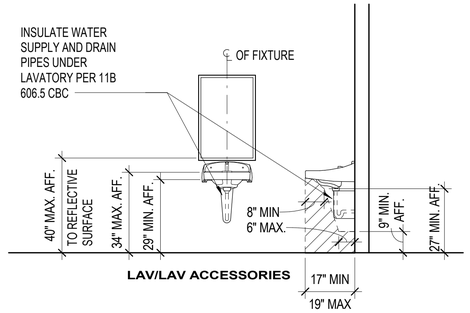


ACCESSORIES

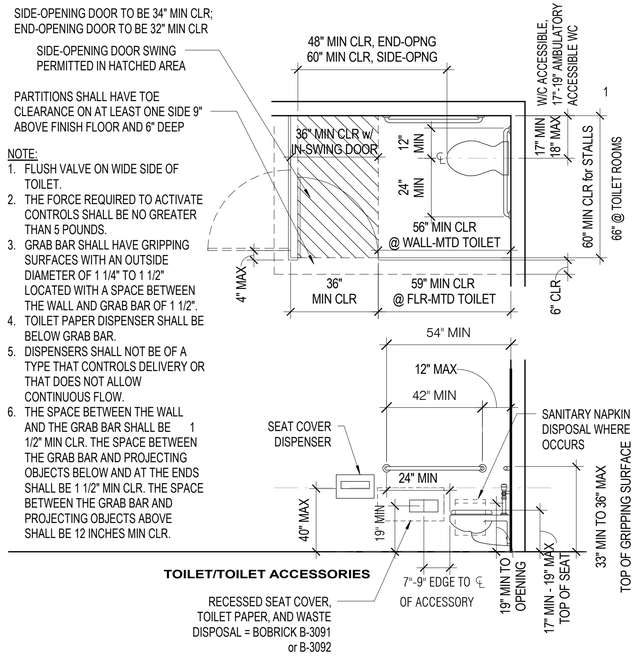
BOTTLE FILLER



NOTE:
1. LAVATORY FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
2. IF MIRROR IS NOT OVER A COUNTER OR LAVATORY THEN 35" MAX AFF TO BOTTOM OF REFLECTIVE SURFACE



LAV/LAV ACCESSORIES

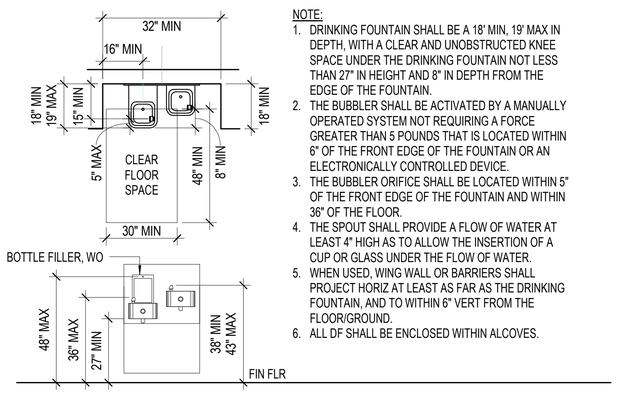


NOTE:
1. FLUSH VALVE ON WIDE SIDE OF TOILET.
2. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
3. GRAB BAR SHALL HAVE GRIPPING SURFACES WITH AN OUTSIDE DIAMETER OF 1 1/4" TO 1 1/2" LOCATED WITH A SPACE BETWEEN THE WALL AND GRAB BAR OF 1 1/2".
4. TOILET PAPER DISPENSER SHALL BE BELOW GRAB BAR.
5. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS FLOW.
6. THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1 1/2" MIN CLR. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1 1/2" MIN CLR. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12 INCHES MIN CLR.

TOILET/TOILET ACCESSORIES

1 G003 TOILET ROOM MOUNTING HTS AND CLEARANCES

3/8" = 1'-0"



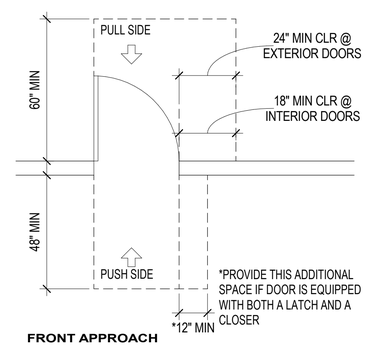
ACCESSIBLE DRINKING FOUNTAIN OR ELECTRIC WATER COOLER

STANDING DRINKING FOUNTAIN OR ELECTRIC WATER COOLER

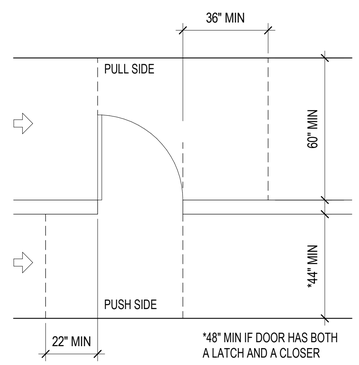
NOTE:
1. DRINKING FOUNTAIN SHALL BE A 18" MIN, 19' MAX IN DEPTH, WITH A CLEAR AND UNOBSTRUCTED KNEE SPACE UNDER THE DRINKING FOUNTAIN NOT LESS THAN 27" IN HEIGHT AND 8" IN DEPTH FROM THE EDGE OF THE FOUNTAIN.
2. THE BUBBLER SHALL BE ACTIVATED BY A MANUALLY OPERATED SYSTEM NOT REQUIRING A FORCE GREATER THAN 5 POUNDS THAT IS LOCATED WITHIN 6" OF THE FRONT EDGE OF THE FOUNTAIN OR AN ELECTRONICALLY CONTROLLED DEVICE.
3. THE BUBBLER ORIFICE SHALL BE LOCATED WITHIN 5" OF THE FRONT EDGE OF THE FOUNTAIN AND WITHIN 36" OF THE FLOOR.
4. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AS TO ALLOW THE INSERTION OF A CUP OR GLASS UNDER THE FLOW OF WATER.
5. WHEN USED, WING WALL OR BARRIERS SHALL PROJECT HORIZ AT LEAST AS FAR AS THE DRINKING FOUNTAIN, AND TO WITHIN 6" VERT FROM THE FLOOR/GROUND.
6. ALL DF SHALL BE ENCLOSED WITHIN ALCOVES.

3 G003 DRINKING FOUNTAIN HT & CLEARANCES

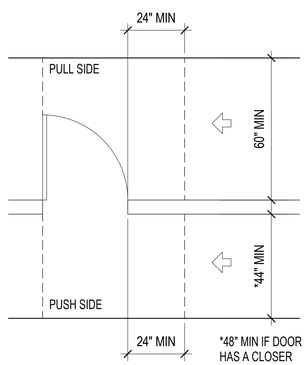
3/8" = 1'-0"



FRONT APPROACH



HINGE APPROACH



LATCH APPROACH

NOTE:
1. LEVEL IS DEFINED AS 2% IN ANY DIRECTION.
2. ALL DOORS REQUIRING FULL USER PASSAGE MUST BE 3'-0"x6'-8" MIN OR HUNG TO PROVIDE 32" MIN. CLEAR
3. SYMBOL DENOTING "CLEAR DIRECTION OF APPROACH"

2 G003 LEVEL MANEUVERING CLEARANCES AT DOORS (REFERENCE)

3/8" = 1'-0"

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Sheet Title MOUNTING HEIGHTS / ACCESSIBILITY DETAILS

Sheet No. G003

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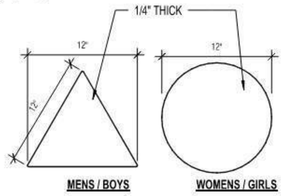
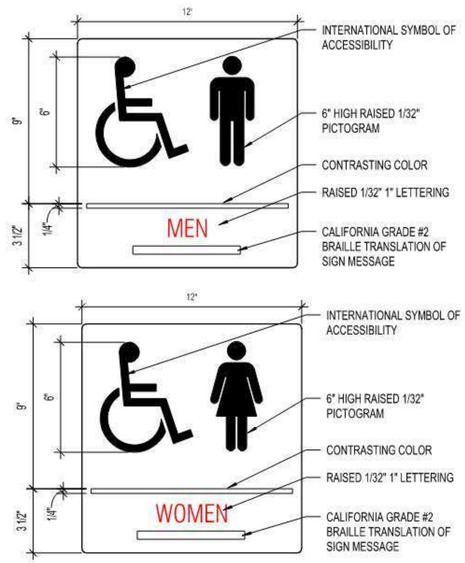
NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 6 / G003.1

10 G003.1 ACCESSIBLE ENTRANCE SIGN
3" = 1'-0"



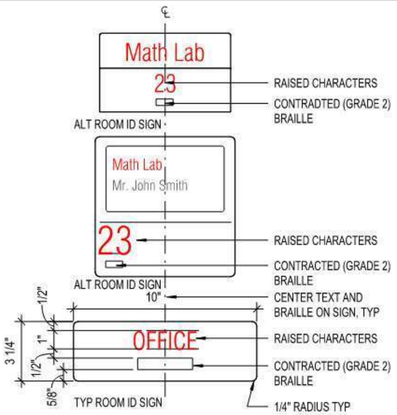
NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 6 / G003.1
3. COLOR OF CIRCLE OR TRIANGLE TO CONTRAST 70% WITH COLOR OF DOOR.

11 G003.1 TOILET ROOM DOOR SIGNS
1 1/2" = 1'-0"



NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 6 / G003.1

12 G003.1 TOILET ROOM SIGN - MEN & WOMEN
3" = 1'-0"



NOTE:
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2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 6 / G003.1

7 G003.1 ROOM NAME/NUMBER
3" = 1'-0"

11B-703.2.6.4 EDGES AND VERTICES ON GEOMETRIC SYMBOLS. EDGES SHALL BE EASED OR ROUNDED AT 1/16 INCH (1.59 mm) MINIMUM, OR CHAMFERED AT 1/8 INCH (3.2 mm) MAXIMUM. VERTICES SHALL BE RADIUSED BETWEEN 1/8 INCH (3.2mm) MINIMUM AND 1/4 INCH (6.4mm) MAXIMUM.

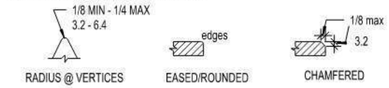
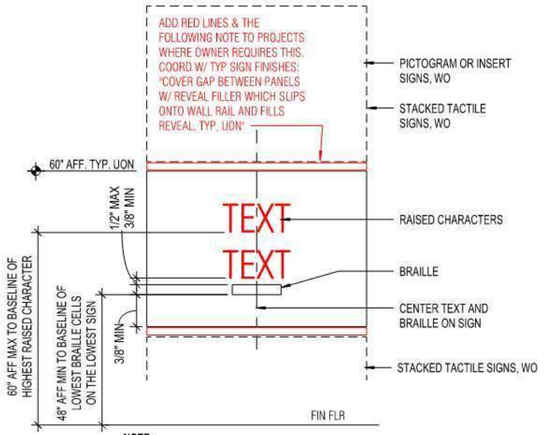


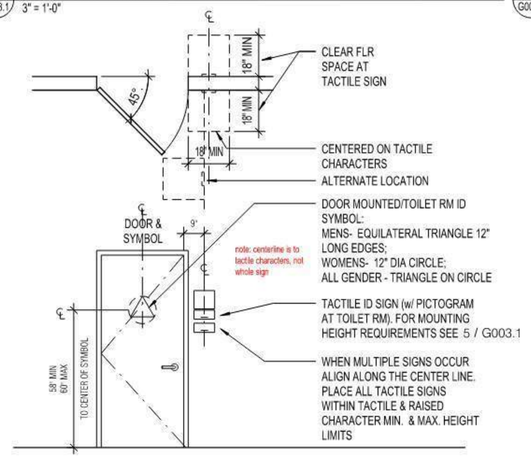
FIGURE 11B-703.2.6.4
EDGES AND VERTICES ON GEOMETRIC SYMBOLS

4 G003.1 ACCESSIBLE SIGN - GEOMETRIC SYMBOLS
3" = 1'-0"



NOTE:
REFER TO SIGNAGE GENERAL NOTES FOR ADDITIONAL INFO

5 G003.1 TACTILE SIGNAGE MOUNTING HT
3" = 1'-0"



NOTE: REFER TO SIGNAGE DRAWINGS FOR ADDITIONAL INFORMATION

6 G003.1 SIGNAGE AT DOORS
3/8" = 1'-0"

1. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHEN THERE ARE TWO ACTIVE LEAVES, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT-HAND DOOR. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3" OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. MOUNTING HEIGHT SHALL BE PER DETAIL 5 / G003.1
2. ALL INTERIOR SIGNS SHALL BE 1/8" THICK MINIMUM. (UON)
3. ALL EXTERIOR SIGNS SHALL BE 1/4" THICK MINIMUM. (UON)
4. RAISED CHARACTERS: ALL TACTILE SIGNS (SIGNS WHICH INCLUDE BRAILLE) SHALL HAVE THE SIGN LETTERING THAT COMPLY WITH CBC 11B-703 AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH CBC 11B-703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH CBC 11B-703.2.
   A. DEPTH: RAISED 1/32"
   B. CASE: LETTER CHARACTERS TO BE UPPERCASE
   C. CHARACTER PROPORTIONS, STROKE THICKNESS, SPACING, LINE SPACING AND FORMAT TO MEET CBC 11B-703.2.
   D. CHARACTER HEIGHT: SHALL BE 5/8" MIN. TO 2" MAX. IN HEIGHT, USE LARGEST LETTER HEIGHT PRACTICAL. (UON) VERIFY ALL TEXT SIZES PRIOR TO FABRICATION.
5. PER CBC TABLE 11B-703.3.1: CONTRACTED CALIFORNIA (GRADE 2) BRAILLE SHALL BE USED WHENEVER BRAILLE SYMBOLS ARE REQUIRED.
   A. DIMENSIONS AND CAPITALIZATION: REFER TO DETAIL 5 / G003.1 FOR DIMENSIONS. CAPITALIZATION TO MEET CBC 11-703.3.1.
   B. FOR BRAILLE POSITION, INSTALLATION HEIGHT AND LOCATION REQUIREMENTS ON THE SIGN SEE
6. PICTOGRAM FIELD: PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6" MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
7. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD.
8. ALL CHARACTERS, PICTOGRAMS & THE FIELD UPON WHICH THEY ARE PLACED ARE TO BE OF A NON-GLARE FINISH AND SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON DARK OR DARK ON LIGHT.
9. EDGES AND VERTICES ON GEOMETRIC SYMBOLS: EDGES SHALL BE EASED OR ROUNDED AT 1/16" INCH MIN. OR CHAMFERED AT 1/8" MAX. SEE DETAIL
10. ALL SIGNS SHALL HAVE ALL EDGES EASED.
11. WHERE EXIT DEVICES AT DOORS ARE NOT PROVIDED, PROVIDE AND INSTALL A READILY VISIBLE, DURABLE SIGN ON ALL EXIT DOORS, OR ADJACENT TO DOOR, WHICH READS, "THIS DOOR MUST REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED"
12. SUBMIT A DRAWING SET FOR APPROVAL WHICH IDENTIFIES SIGNAGE TYPES, MATERIALS & FINISHES, LOCATIONS, ROOM NUMBERS, TEXT & ORIENTATION OF DIRECTIONAL ARROWS TO OWNER & ARCHITECT PRIOR TO FABRICATION
13. ALL SIGNS SHALL BE MOUNTED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
14. ALL EXTERIOR MOUNTED SIGNS TO BE RATED FOR EXTERIOR USE BY MANUFACTURER.
15. ALL PLASTIC SIGNS ADHESIVELY APPLIED TO GLASS SHALL HAVE AN ADDITIONAL PLASTIC BACKING THE SAME SIZE AS THE SIGN ALIGNED AND ADHESIVELY APPLIED TO THE OTHER SIDE OF THE GLASS.
16. GRAPHIC LAYOUT, FONTS, COLOR, AND MATERIALS OF SIGNAGE TO COMPLY WITH DISTRICT STANDARDS.
17. CODE-GOVERNED SIGNS TO BE FIELD INSPECTED PER CBC 11B.703.1.1.

TYPICAL SIGN FINISHES (UON):

PANEL FINISH:	70% CONTRASTING COLOR TBD, NON-GLARE FINISH
GRAPHIC METHOD:	SCREEN PROCESS
GRAPHIC COLOR:	BONE WHITE, NON-GLARE FINISH
REVEAL FILLER:	1/8" THICK STAINLESS STEEL ACCENT IN (DESIGNER: SPECIFY COLOR)
	(EXAMPLE OF OWNER SPECIFIC REQUIREMENT)

2 G003.1 SIGNAGE GENERAL NOTES, TYP FINISHES
3" = 1'-0"

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5MM) TO 0.063 (1.6MM)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL[1]	0.100 (2.5MM)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS[1]	0.300 (7.6MM)
DOT HEIGHT	0.025 (0.6MM) TO 0.037 (0.9MM)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW[1]	0.395 (10MM) TO 0.400 (10.2MM)

1. MEASURED CENTER TO CENTER.

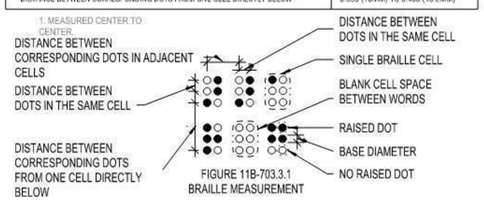


FIGURE 11B-703.3.1
BRAILLE MEASUREMENT

3 G003.1 ACCESSIBLE SIGN - BRAILLE DIMENSIONS (REFERENCE)
3" = 1'-0"

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Date signed: 10/09/2026

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BERKELEY, CA 94710

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RESTROOM SIGNAGE DETAILS

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Sheet No. G003.1

1

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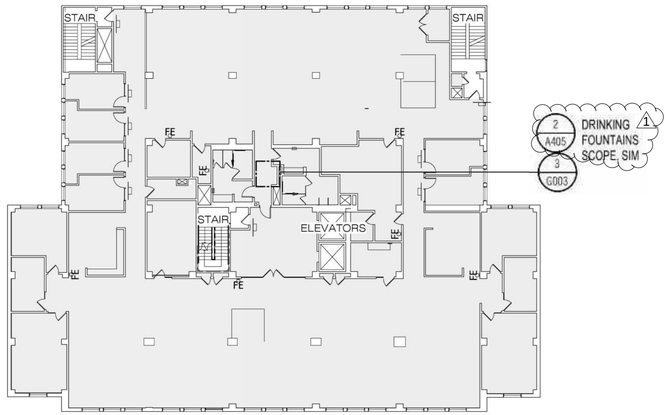
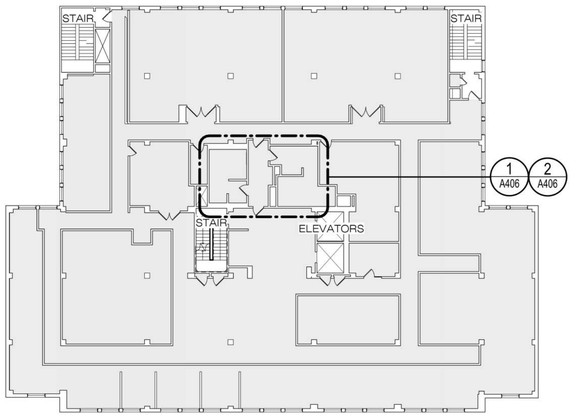


4 G004 **04- FOURTH FLOOR**
3/64" = 1'-0"



6 G004 **06- SIXTH FLOOR**
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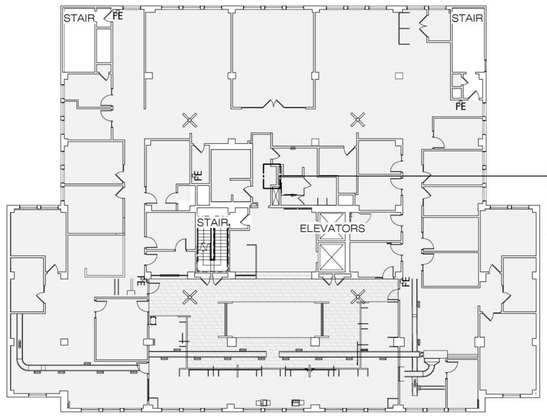
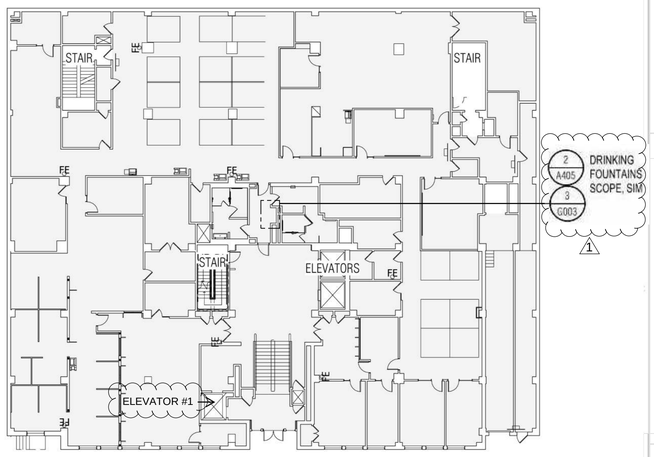


SEE CITY OF BERKELEY PERMIT # 2025-1843, DATED JUNE 2,2025 FOR 3RD LEVEL DRINKING FOUNTAIN REPLACEMENT

3 G004 **03- THIRD FLOOR**
3/64" = 1'-0"



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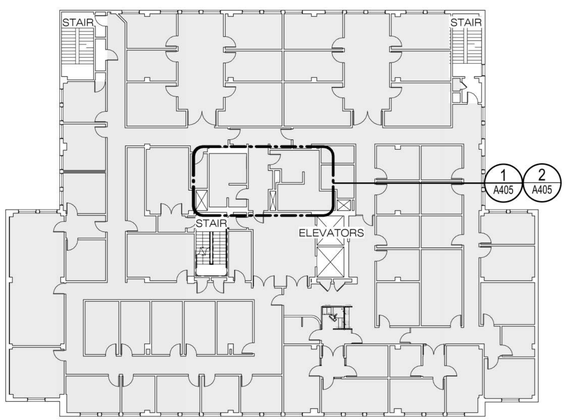

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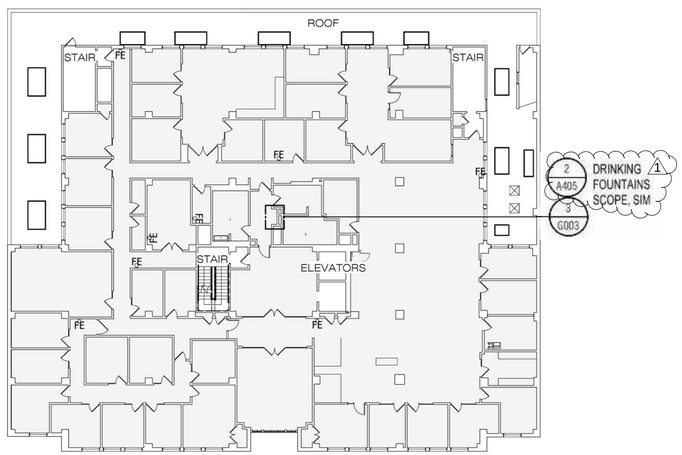

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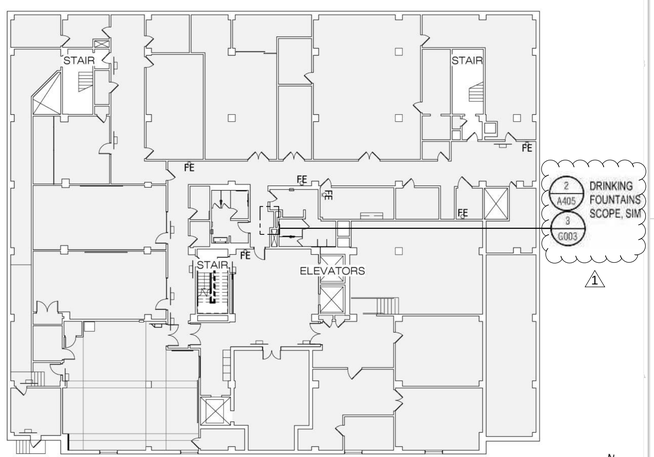

0 G004 **00- BASEMENT**
3/64" = 1'-0"

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CITY OF BERKELEY

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KEY PLANS

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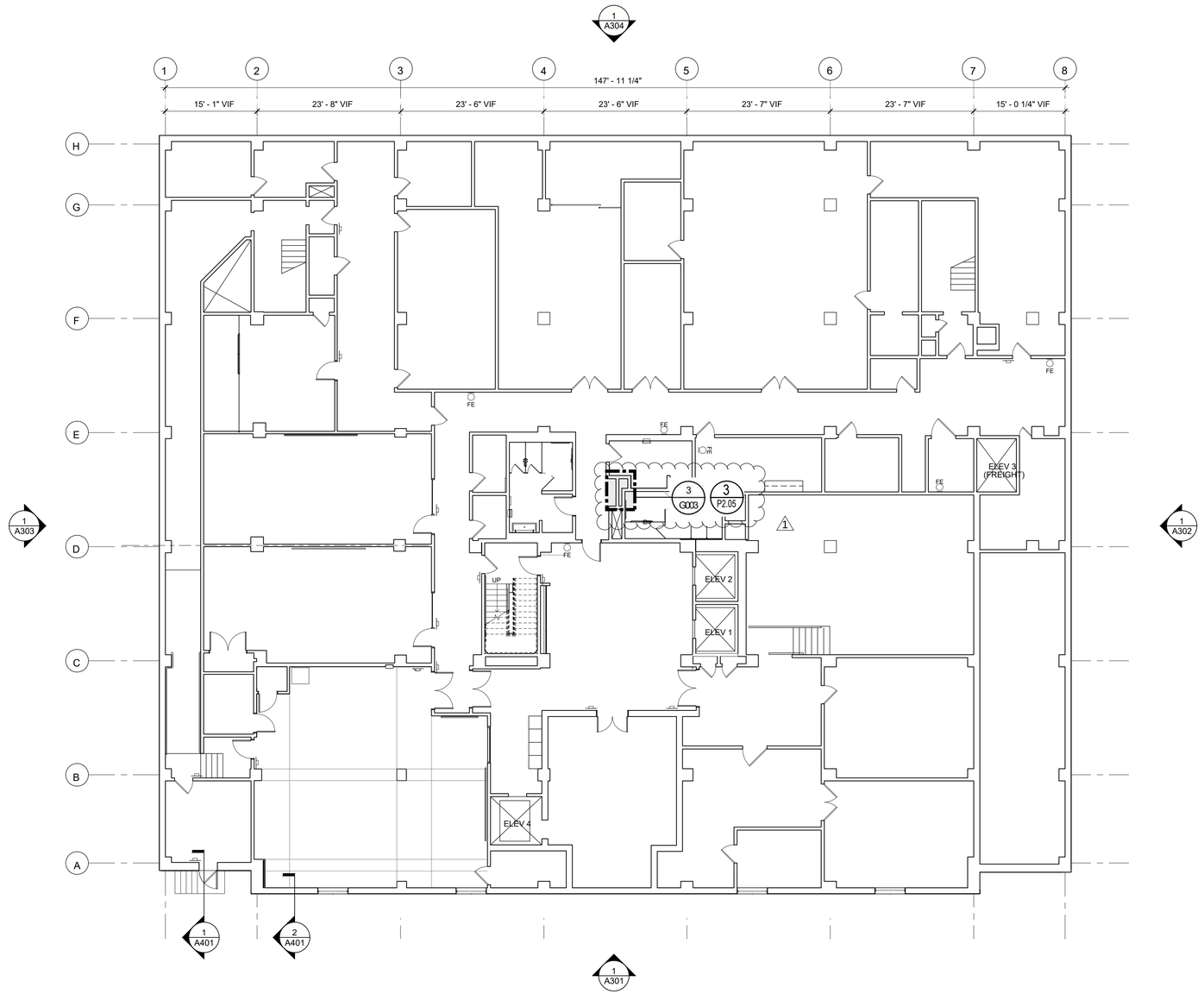

NOTE:
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1 BASEMENT FLOOR PLAN
SCALE: 3/32" = 1'-0"

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Sheet Title: BASEMENT FLOOR PLAN

Sheet No. **A200**

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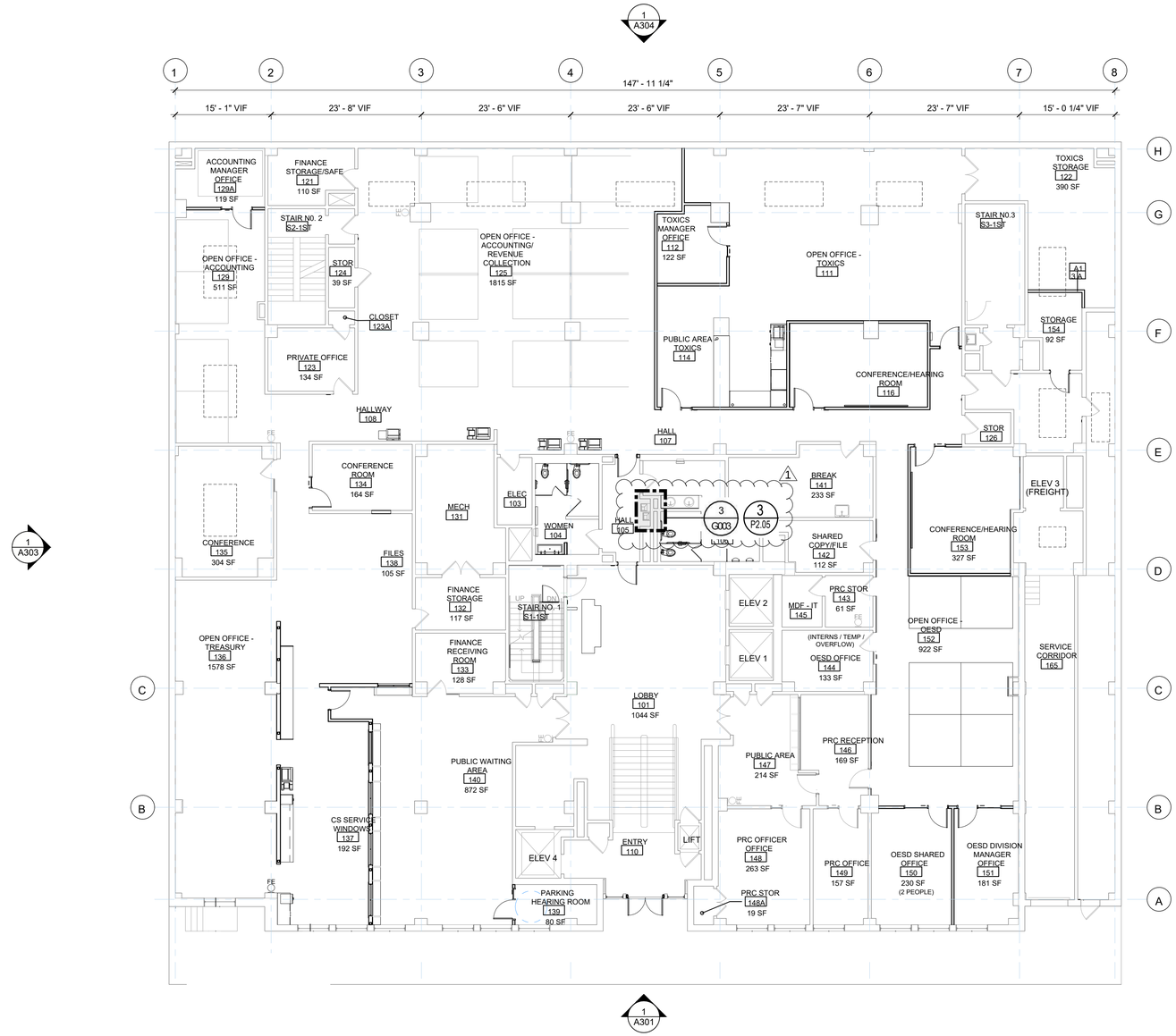

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1 FIRST FLOOR PLAN
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Sheet Title
FIRST FLOOR PLAN

Sheet No.
A201

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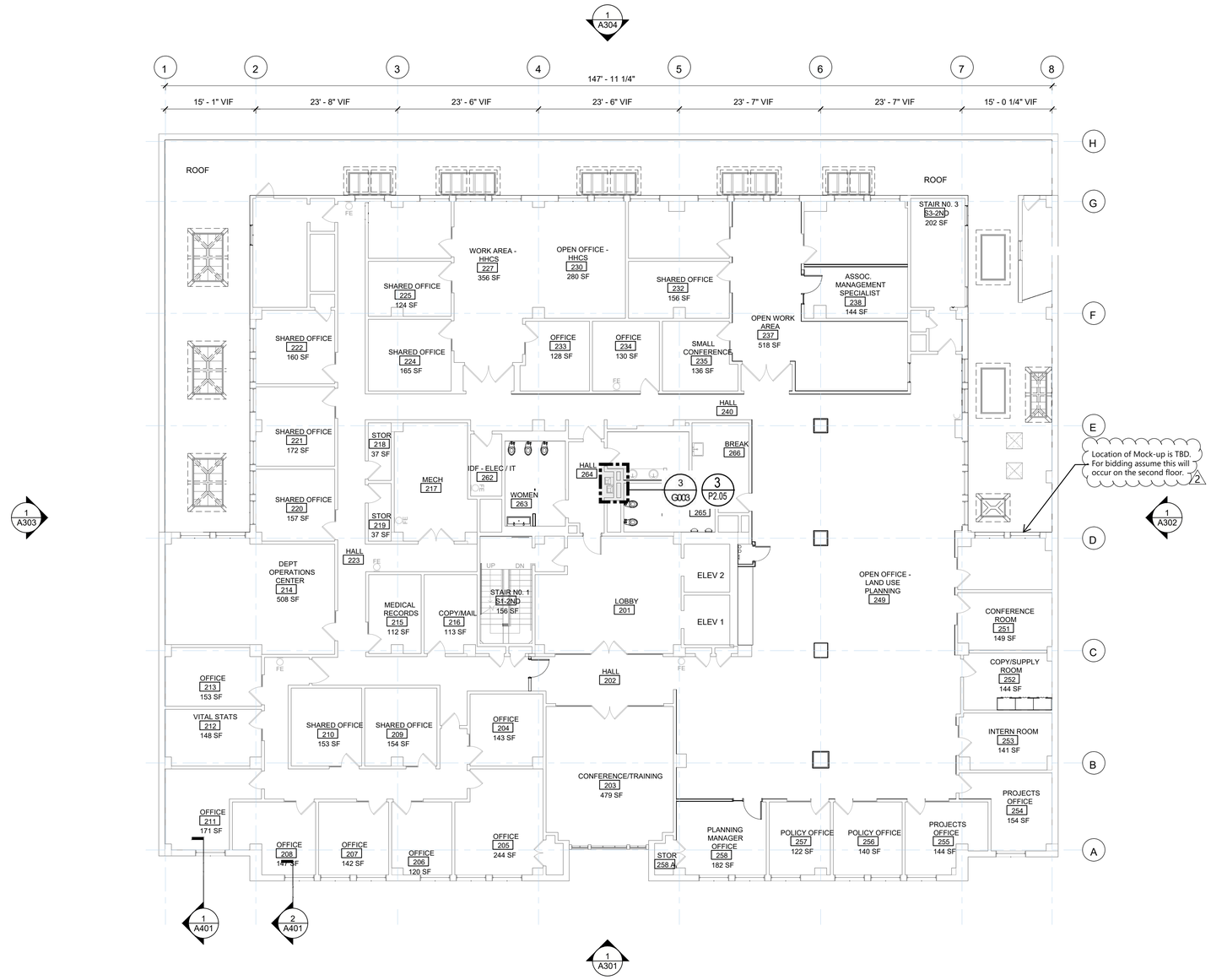

NOTE:
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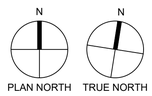
1 SECOND FLOOR PLAN
SCALE: 3/32" = 1'-0"



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Sheet Title
SECOND FLOOR PLAN

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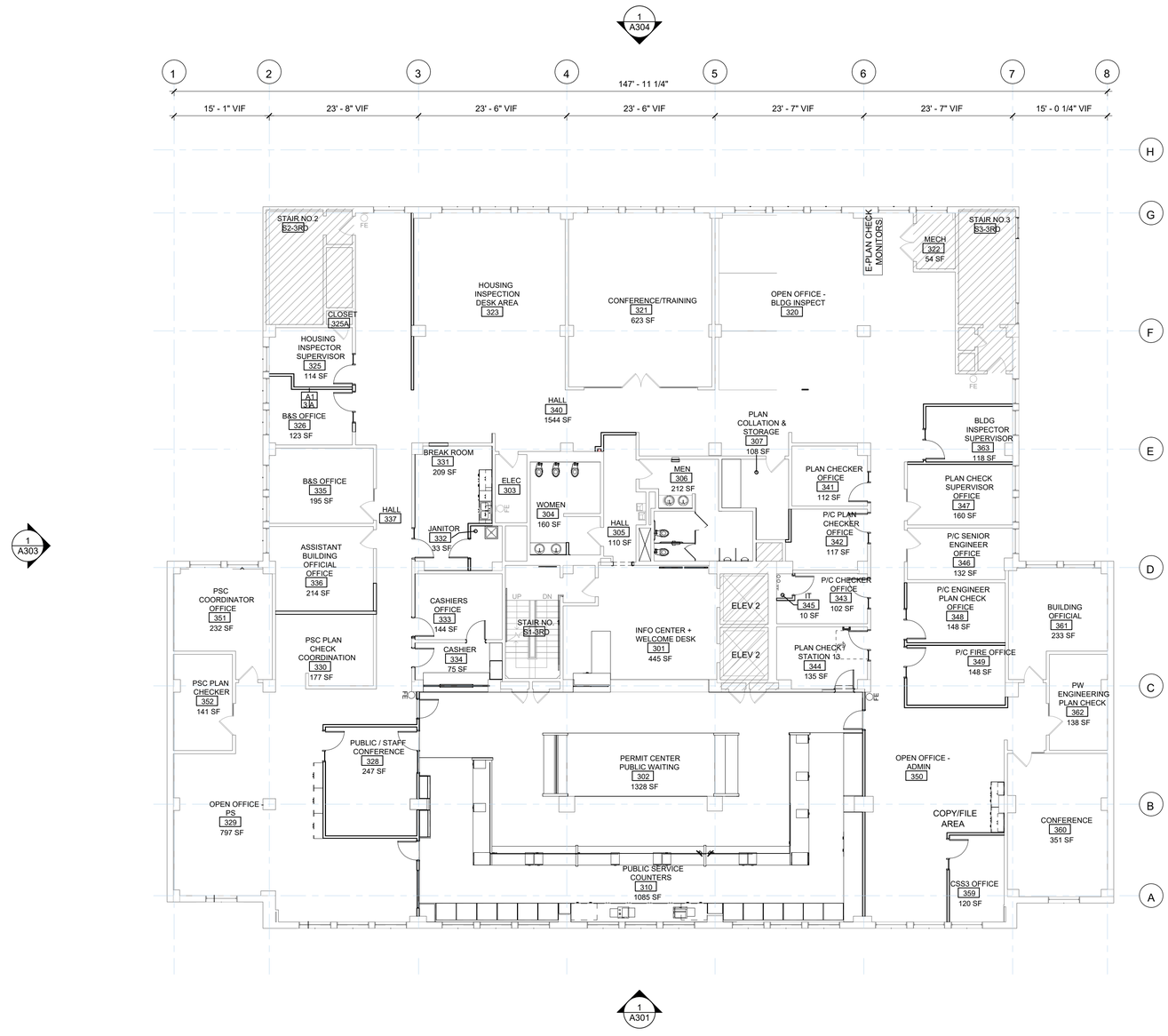

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1 THIRD FLOOR PLAN
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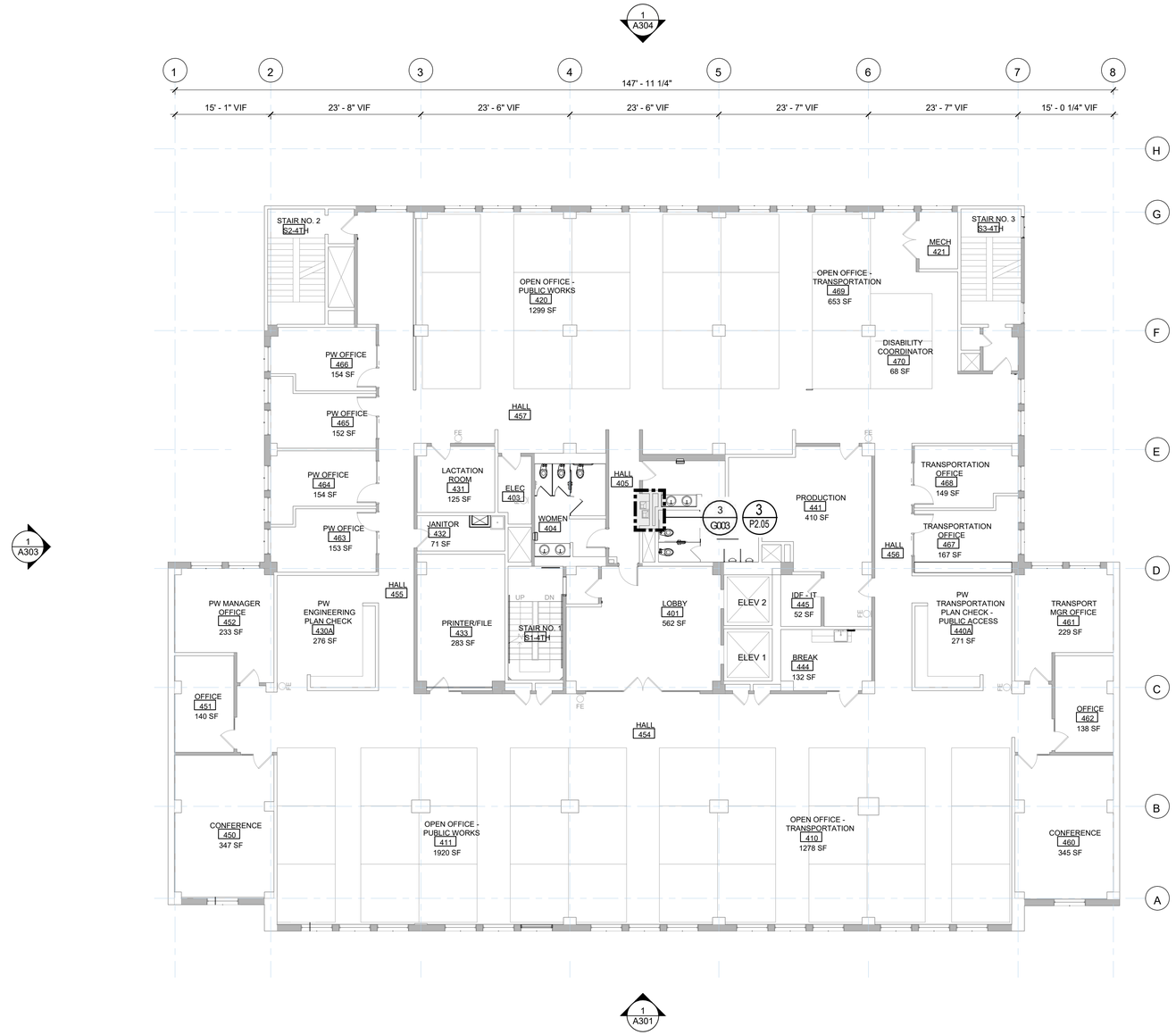
Sheet Title: THIRD FLOOR PLAN

Sheet No. **A203**



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1 FOURTH FLOOR PLAN
SCALE: 3/32" = 1'-0"

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Sheet Title
FOURTH FLOOR PLAN

Sheet No. **A204**

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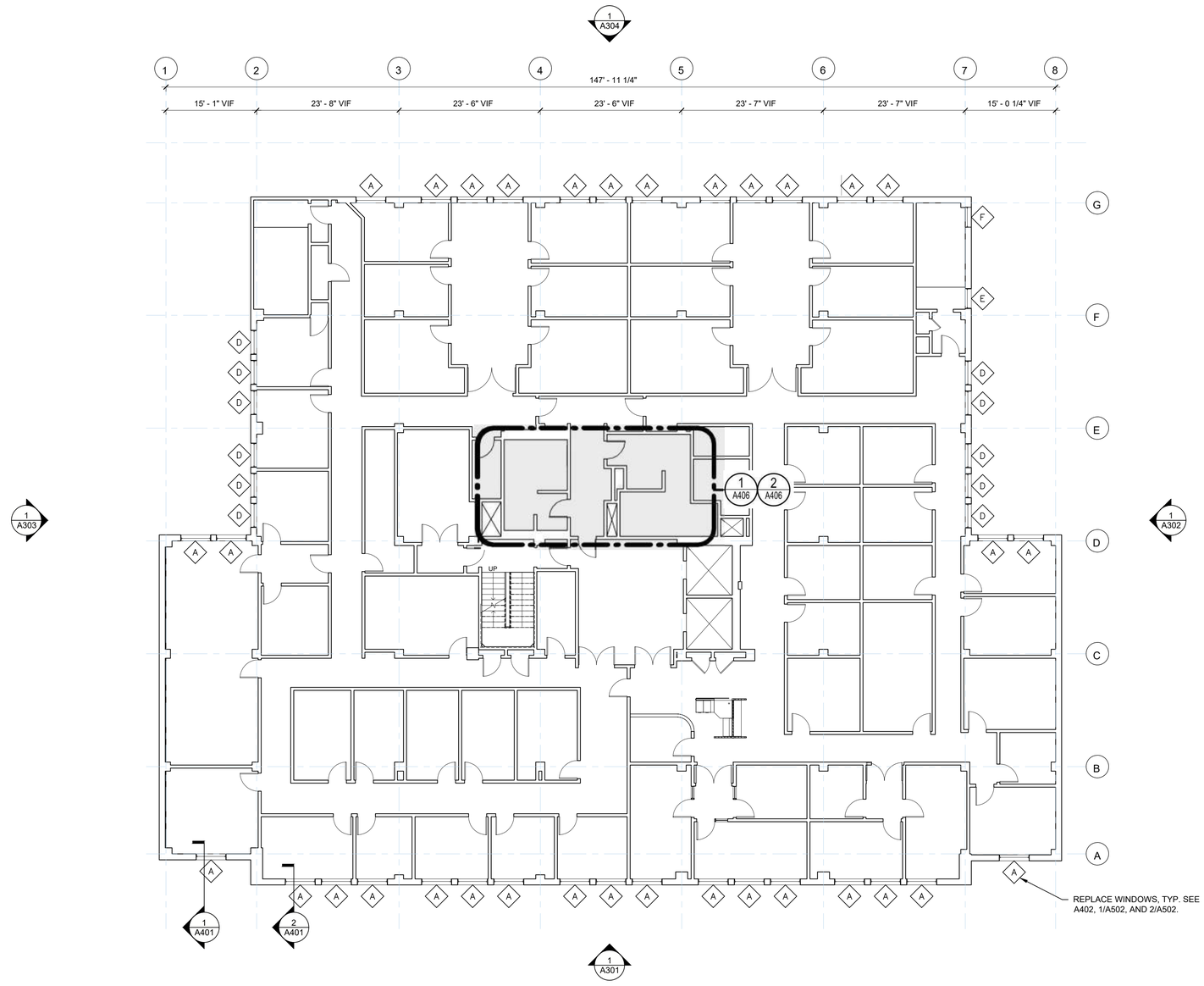

1 FIFTH FLOOR PLAN

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HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

NOLL & TAM ARCHITECTS
729 HEINZ AVENUE
BERKELEY, CA 94710

Mark	Date	Description
	02/18/2026	ISSUED FOR 3RD CORRECTION
	11/14/2025	FOR PERMIT

THIS SHEET PLOTS FULL SIZE AT 22X34 (INCHES)

Project No.	2024.0881.0
Date	14 NOV 2025 PLAN CHECK COMMENTS
Drawn	KL/JAW
Checked	AJB
Scale	As Noted

Sheet Title: FIFTH FLOOR PLAN

Sheet No.: **A205**

Plotted: 11/14/2025 7:21 PM by LeBlanc, Kalie File Name: P:\2024\0024 0xxx\2024.0881.0 - 1947 CENTER ST - ENERGY RETROFIT (AJB)\5 Construction Documents\1 Drawings\Sheets\2024_0881_0-A205.dwg

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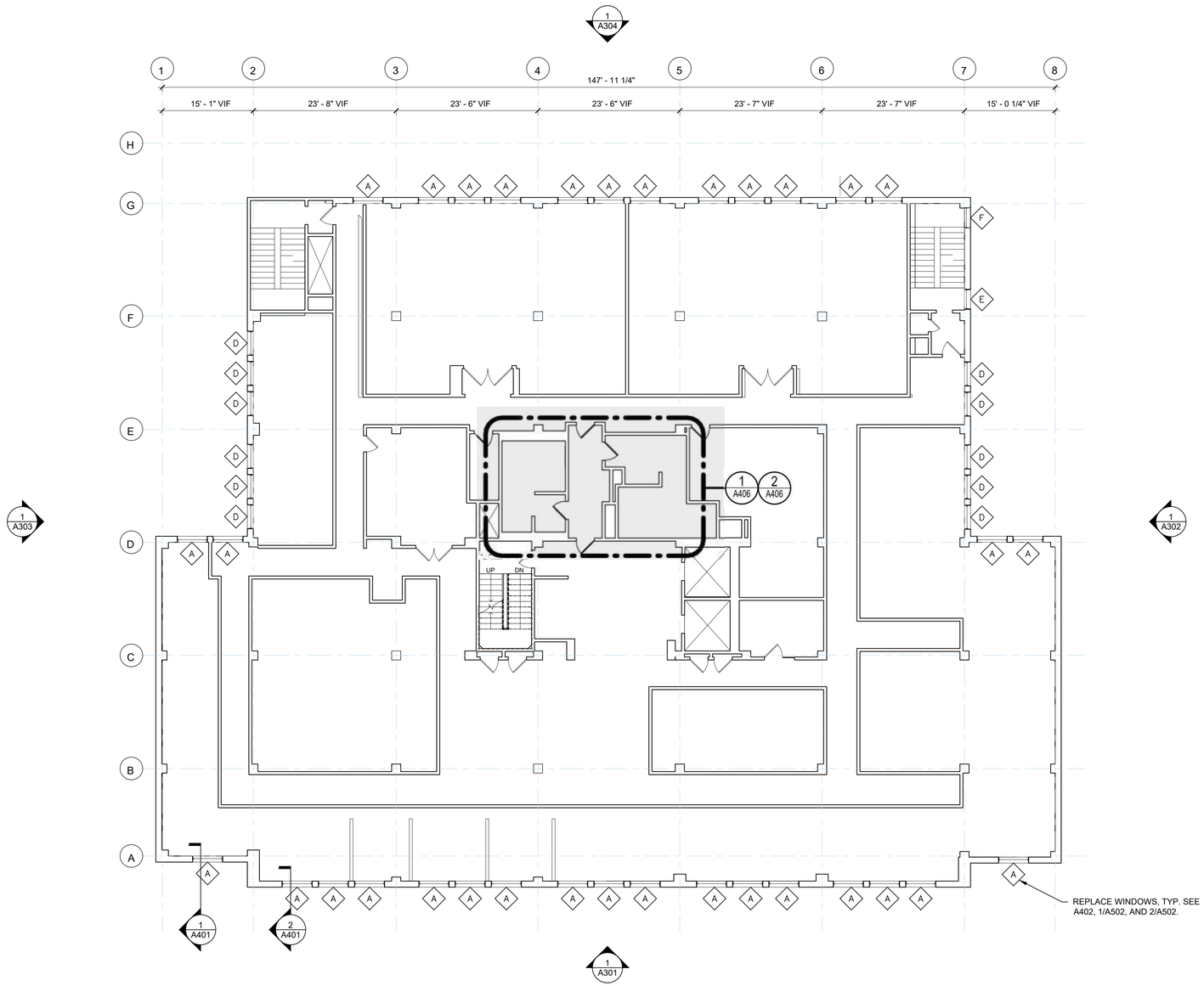

1 SIXTH FLOOR PLAN
SCALE: 3/32" = 1'-0"

N PLAN NORTH

N TRUE NORTH

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LICENSED ARCHITECT
ANDREW J. BISHOP
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Exp. 03/31/25
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Consultants

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Sheet Title: SIXTH FLOOR PLAN

Sheet No.: **A206**

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SHEET NOTES:

1. SURVEY ALL CONCRETE SURFACES INCLUDED WITHIN THE ROUGH OPENINGS OF LEVEL 5 AND 6 WINDOWS FOR DETERIORATION AND DAMAGE, INCLUDING (BUT NOT LIMITED TO) BULGES, DISPLACEMENTS, DELAMINATIONS, CRACKS, INCIPIENT SPALLS, SPALLS, ABANDONED INSERTS, AND OTHER DETERIORATION OR DAMAGE. EVALUATE TACTICALLY FOR STABILITY, INCLUDING ACOUSTIC HAMMER SOUNDING FOR DELAMINATIONS. REPAIR PER A504 AND A505 AS APPLICABLE.

1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

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0 1/2" 1" 2"
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Scale	As Noted

Sheet Title: SOUTH ELEVATION

Sheet No.: **A301**

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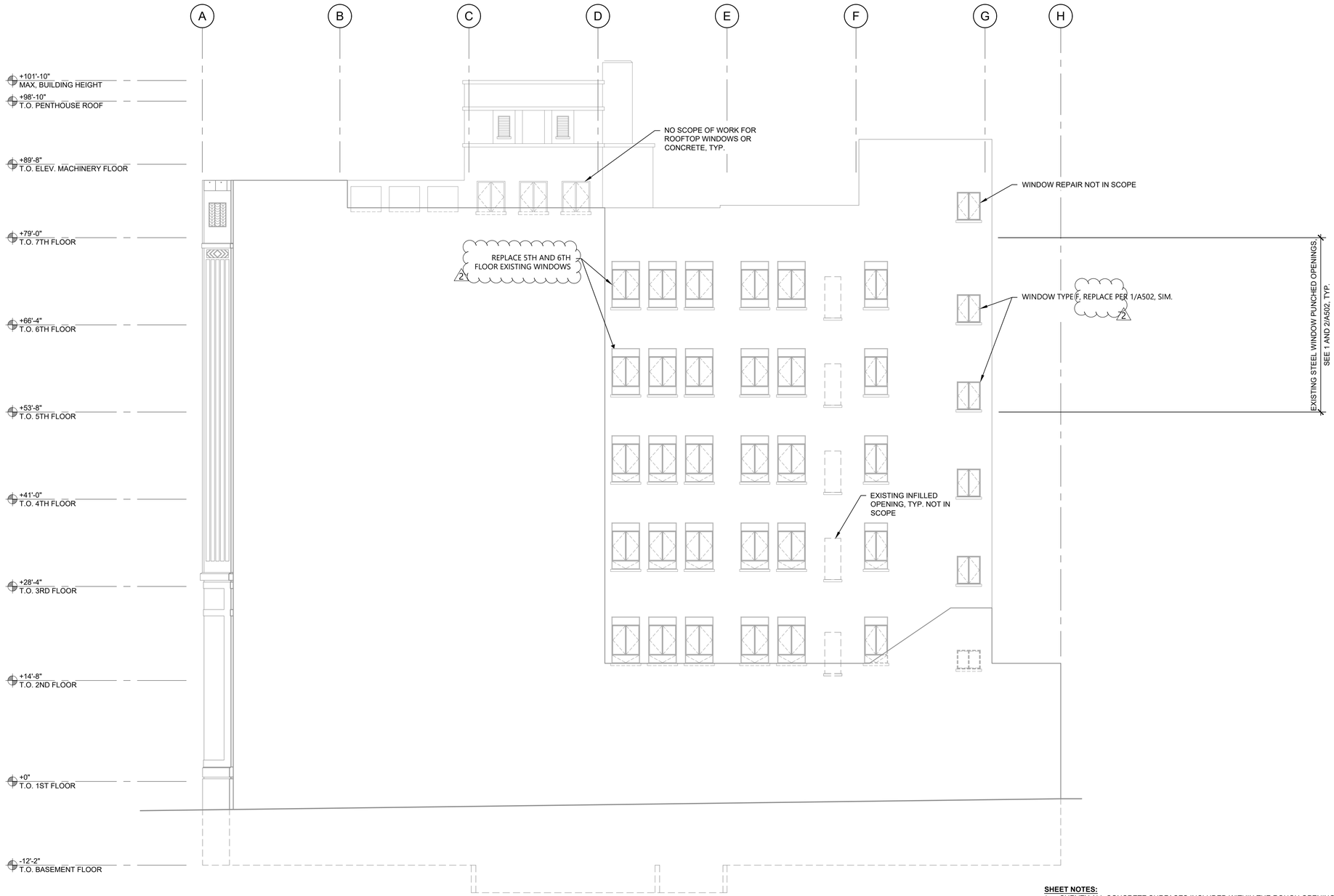

SHEET NOTES:

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1 EAST ELEVATION
SCALE: 1/8" = 1'-0"

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Date	14 NOV 2025 PLAN CHECK COMMENTS
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Scale	As Noted

Sheet Title: EAST ELEVATION

Sheet No.: **A302**

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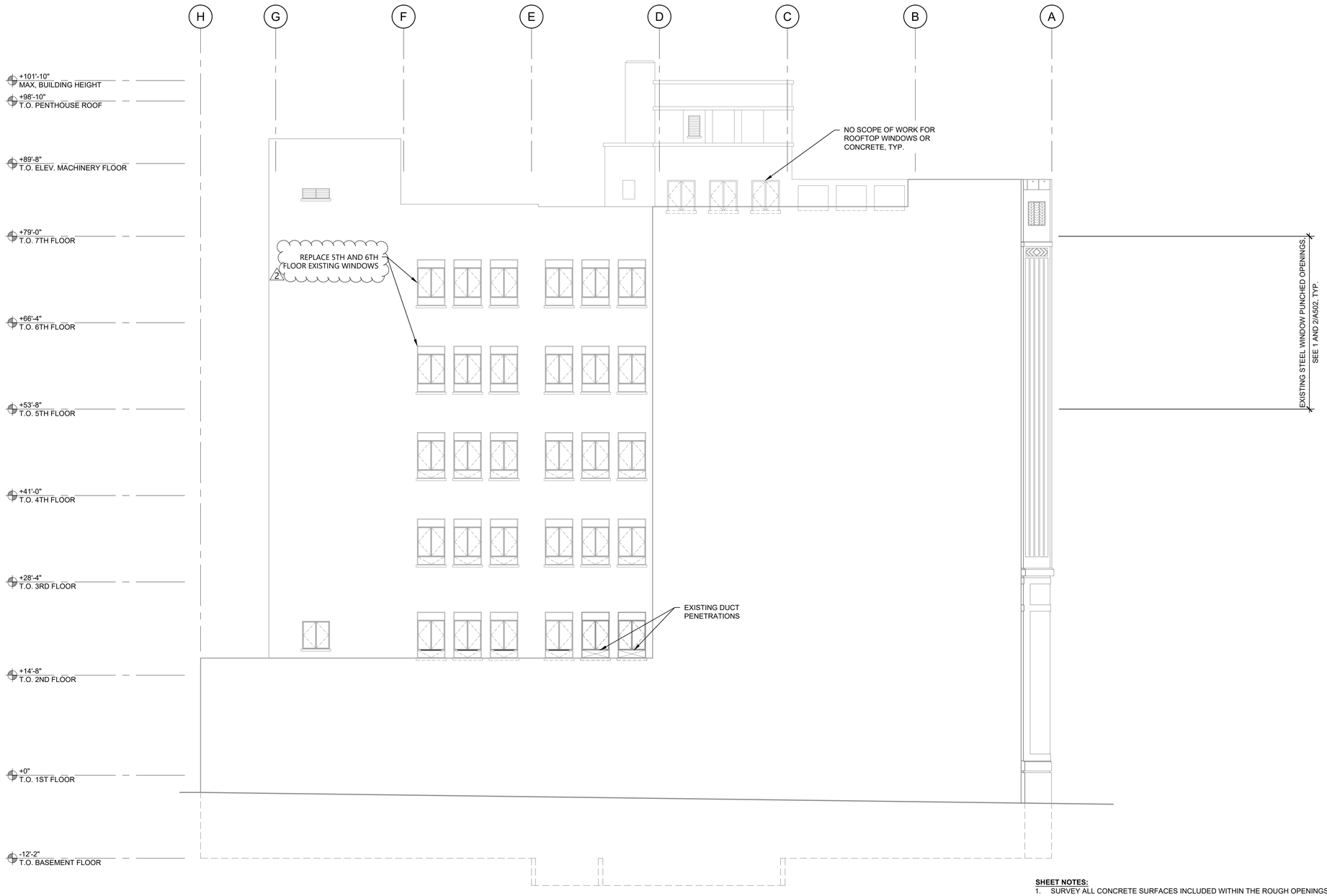

SHEET NOTES:

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1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

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Sheet Title: WEST ELEVATION

Sheet No.: **A303**

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1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

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Sheet Title
NORTH ELEVATION

Sheet No.
A304

Posted: 11/14/2025 7:25 PM by LeBlanc, Kalie File Name: P:\2024\0881.0 - 1947 CENTER ST - ENERGY RETROFIT (AJB)\5 Construction Documents\1 Drawings\Sheets\2024_0881_0-A304.dwg
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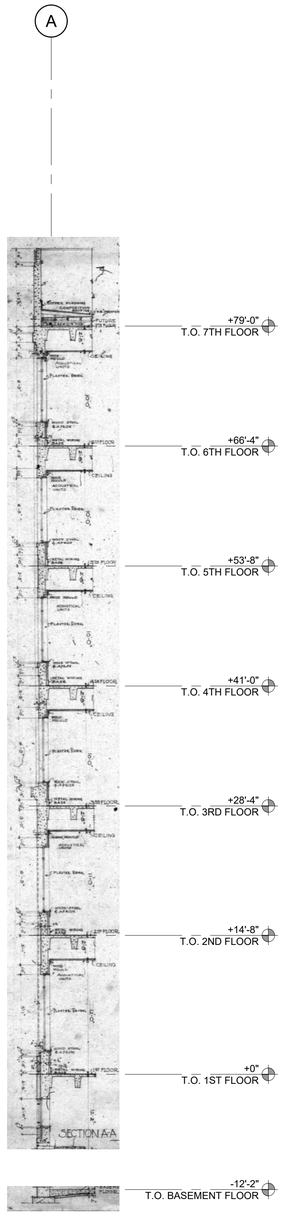
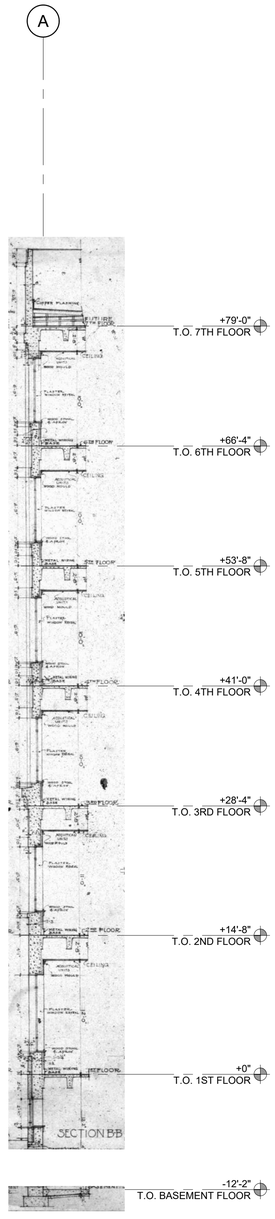


1 SECTION AT GRIDLINE A BETWN 1 & 2
SCALE: 1/8" = 1'-0"



2 SECTION AT GRIDLINE A BETWN 2 & 3
SCALE: 1/8" = 1'-0"

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Sheet Title: WALL SECTIONS

Sheet No.: **A401**

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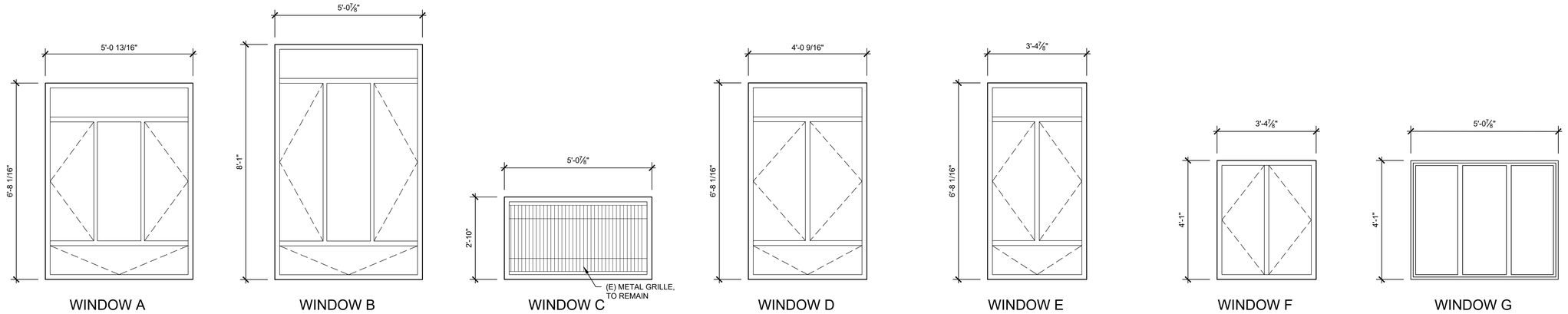
EXISTING WINDOW SCHEDULE

TYPE	SIZE		FRAME MATERIAL	GLAZING		TOTAL NO.	DETAILS	COMMENTS
	WIDTH	HEIGHT		NO. OF LITES	TYPE			
A	5'-0 13/16"	6'-8 1/16"	STEEL	5	SINGLE PANE	164	1/A402	AT 5TH AND 6TH FLOORS, REPLACE PER WINDOW TYPE AA.
B	5'-0 7/8"	8'-1"	STEEL	5	SINGLE PANE	13	1/A402	TO REMAIN.
C	5'-0 7/8"	2'-10"	STEEL	1	SINGLE PANE	4	1/A402	TO REMAIN. REPLACE PERIMETER SEALANT.
D	4'-0 9/16"	6'-8 1/16"	STEEL	4	SINGLE PANE	55	1/A402	AT 5TH AND 6TH FLOORS, REPLACE PER WINDOW TYPE DD.
E	3'-0 7/8"	6'-8 1/16"	STEEL	4	SINGLE PANE	5	1/A402	AT 5TH AND 6TH FLOORS, REPLACE PER WINDOW TYPE EE.
F	3'-0 7/8"	4'-1"	STEEL	2	SINGLE PANE	6	1/A402	AT 5TH AND 6TH FLOORS, REPLACE PER WINDOW TYPE FF.
G	5'-0 7/8"	4'1"	STEEL	3	SINGLE PANE	1	1/A402	TO REMAIN.

NEW WINDOW SCHEDULE

TYPE	SIZE		FRAME MATERIAL	GLAZING		TOTAL NO.	DETAILS	COMMENTS
	WIDTH	HEIGHT		NO. OF LITES	TYPE			
AA	5'-0 13/16"	6'-8 1/16"	ALUMINUM	5	IGU	66	2/A502	
DD	4'-0 9/16"	6'-8 1/16"	ALUMINUM	4	IGU	22	1/A502	
EE	3'-0 7/8"	6'-8 1/16"	ALUMINUM	4	IGU	2	A502 SIM.	
FF	3'-0 7/8"	4'-1"	ALUMINUM	2	IGU	2	A502 SIM.	



1 EXISTING WINDOW ELEVATIONS
SCALE: 1/2" = 1'-0"

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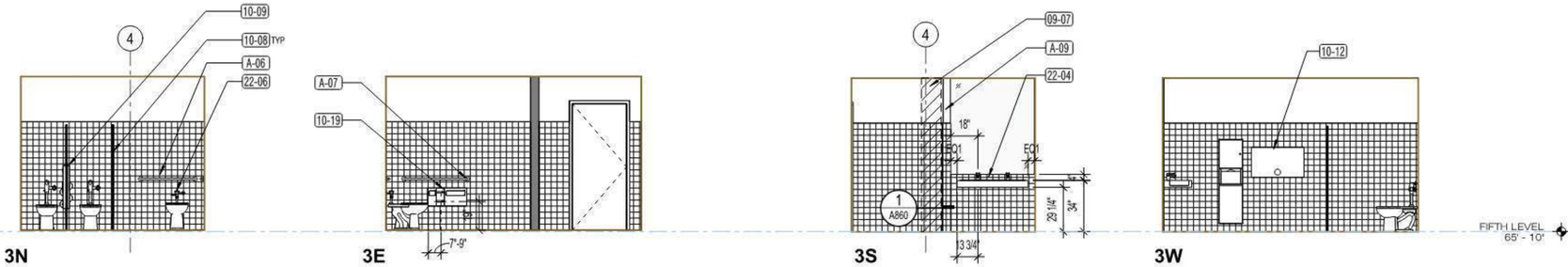
Sheet Title
WINDOW SCHEDULE

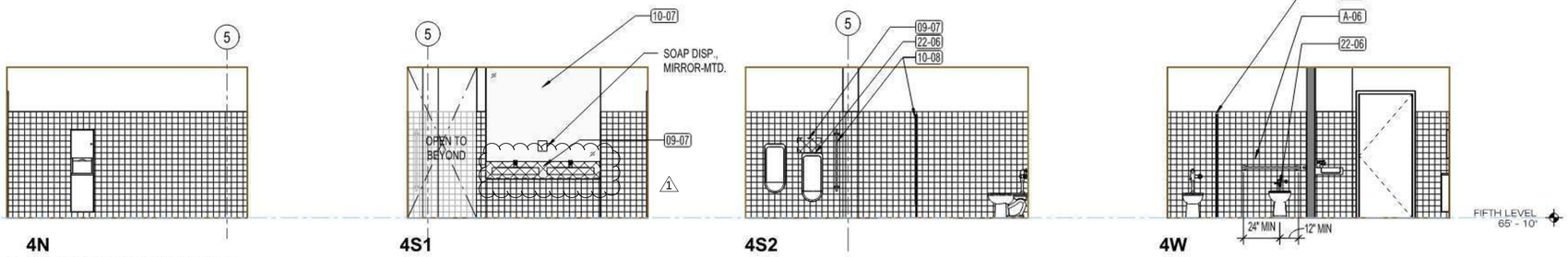
Sheet No.
A402



3N 3E 3S 3W

3N 05-WOMENS RESTROOM N

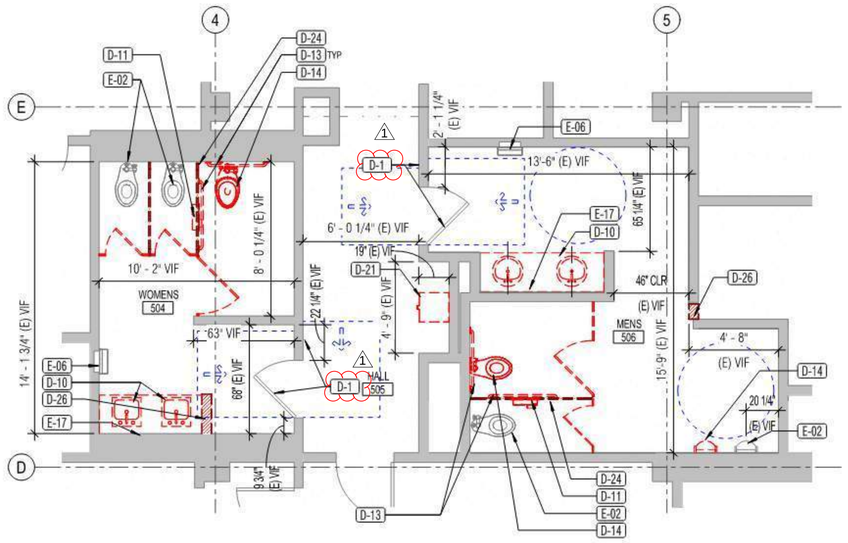
3N / A405 1/4" = 1'-0"



4N 4S1 4S2 4W

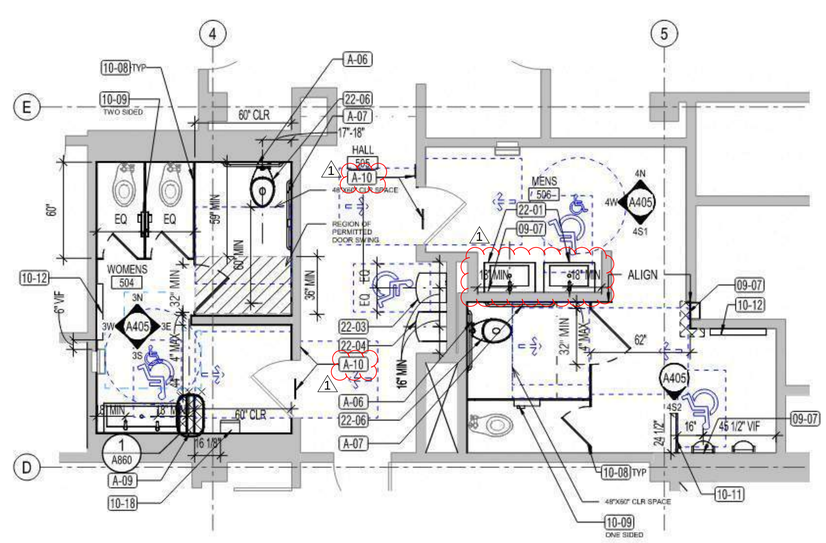
4N 05-MENS RESTROOM N

4N / A405 1/4" = 1'-0"



1 A405 05 - DEMO ENLARGED PLAN - 5TH LEVEL RESTROOMS

1/4" = 1'-0"



2 A405 05 - ENLARGED FLOOR PLAN - 5TH LEVEL-RESTROOMS

1/4" = 1'-0"

DEMOLITION PLAN NOTES

1. PATCH AND REPAIR ALL FLOORING SUBSTRATES, WALLS, AND CEILINGS AS REQD TO PROVIDE SMOOTH SURFACES FOR (N) FINISHES.
2. SEE MEP DWGS FOR ADDL DEMO WORK.
3. DIMENSIONS PROVIDED ON THE DRAWING ARE FOR REFERENCE ONLY; CONTRACTOR SHALL PROVIDE FIELD VERIFICATION AS REQD IN AREA OF WORK.

RESTROOM PLAN NOTES

1. FOR ACCESSIBLE FIXTURE AND ACCESSORY MOUNTING HEIGHTS, SEE **1/G003**.
2. FOR GRAB BAR BACKING, SEE SHEET **2/A860**.
3. PROVIDE BACKING FOR WALL-HUNG FIXTURES
4. FOR TYP TOILET PARTITION ANCHORAGE, SEE **4/A860**.
5. DIMENSIONS ON THIS SHEET ARE TO F.O. FINISH, UON.
6. FOR BABY CHANGING STATION MTG HTS AND DETAIL, SEE **3/A860.**
7. FOR DOOR AND WALL SIGNAGE, SEE G003.1

1

KEYNOTE LEGEND

Key Value	Keynote Text
09-07	PATCH WALL TILE TO MATCH EXISTING. PATCH FLOOR TILE WHERE INDICATED.
10-07	PROVIDE FULL HEIGHT MIRROR TO UNDERSIDE OF CEILING
10-08	PROVIDE TOILET PARTITIONS
10-09	PROVIDE PARTITION MOUNTED COMBO SEAT COVER-TOILET-TISSUE DISPENSER
10-11	PROVIDE URINAL PARTITIONS
10-12	PROVIDE STAINLESS STEEL WALL-MOUNTED BABY CHANGING STATION
10-18	PROVIDE SURFACE-MOUNTED NAPKIN DISPENSER
10-19	PROVIDE RECESSED COMBO SEAT COVER-TOILET-TISSUE DISPENSE
22-01	PROVIDE WALL MOUNTED LAV & FAUCET(S), SPD
22-03	INSTALL SALVAGED CHILLED WATER FOUNTAIN WITH BOTTLE FILLER IN NEW LOCATION AT SITTING HEIGHT, SPD AND 1/G300
22-04	PROVIDE CHILLED WATER FOUNTAIN AT STANDING HEIGHT, SPD AND 1/G300
22-06	PROVIDE TOILETS AND URINALS TO REPLACE (E) FIXTURES IN NEW LOCATION. REFER TO PLUMBING DRAWINGS
A-06	36" MIN. GRAB BAR, USE SALVAGED WHERE AVAILABLE
A-07	42" MIN. GRAB BAR, USE SALVAGED WHERE AVAILABLE
A-09	REBUILD PARTITION TO CREATE CODE COMPLIANT CLEARANCE. PATCH TILE TO MATCH EXISTING, WHERE WALL WAS REMOVED. TILE NEW PARTITION TO MATCH EXISTING TILE.
A-10	PROVIDE DOOR SIGNAGE AND ROOM ID SIGNAGE. SEE G300.1 FOR REQUIREMENTS & MOUNTING HEIGHTS
D-1	REMOVE EXISTING SIGNAGE FROM WALL AND RESTROOM DOOR. REPAIR FINISHES.
D-10	REMOVE EXISTING COUNTER, LAVATORIES, FIXTURES, AND SOAP DISPENSERS
D-11	REMOVE EXISTING COMBO SEAT COVER-TOILET-TISSUE DISPENSER
D-13	REMOVE EXISTING GRAB BAR FROM DEMOLISHED PARTITION, AND SALVAGE FOR REINSTALLATION IN NEW PARTITION
D-14	REMOVE EXISTING TOILETS OR URINALS AND PREP FOR NEW. CAP OFF UTILITIES. TILE TO BE PATCHED TO MATCH EXISTING AFTER INSTALLATION OF NEW FIXTURES.
D-21	REMOVE & SALVAGE EXISTING DRINKING FOUNTAIN WITH BOTTLE FILLER
D-24	REMOVE (E) TOILET PARTITIONS. SALVAGE TOILET PAPER DISPENSERS AND TURN OVER TO OWNER
D-26	REMOVE (E) PARTITION IN ORDER TO CREATE ADEQUATE CLEARANCE. PATCH AND REPAIR WALL TO RECEIVE NEW TILE.
E-02	EXISTING PLUMBING FIXTURE(S) TO REMAIN.
E-06	EXISTING PT DISPENSER & DISPOSAL TO REMAIN
E-17	EXISTING MIRROR, TYP

1

LEGEND

REMOVE (E) WALL OR ASSEMBLY

REMOVE (E) WALL FINISH OR SURFACE ELEMENT

EXISTING (E) TO REMAIN

FLOOR AND/OR WALL FINISH PATCH TO MATCH OR AS DIRECTED

NOLL & TAM ARCHITECTS

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LICENSED ARCHITECT
JANET TAM
No. C-14064
REN. 01-31-27
STATE OF CALIFORNIA

Date signed: 12/15/2025

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

CITY OF BERKELEY

Mark	Date	Description
	02/18/2026	ISSUED FOR 3RD CORRECTION
1	01/09/2026	PLAN CHECK COMMENTS
	11/14/2025	FOR PERMIT

THIS SHEET PLOTS FULL SIZE AT 22X34 (INCHES)

Project No. 2024.0881.0

Date 11 OCT 2025 PLAN CHECK COMMENTS

Drawn

Checked

Scale As Noted

Sheet Title ENLARGED PLANS AND ELEVATIONS - 5TH FLOOR

Sheet No. **A405**

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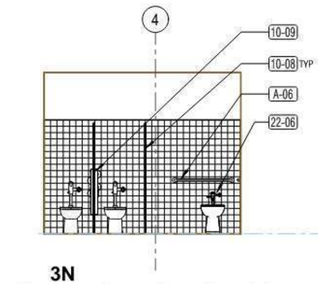
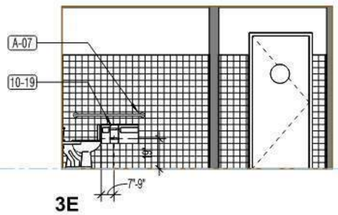


3N



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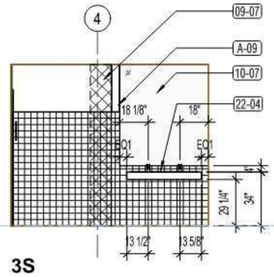

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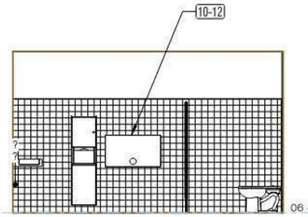
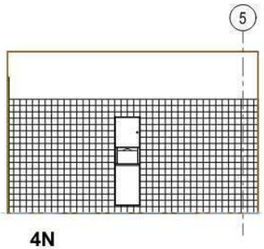


3W

06 - SIXTH LEVEL
78' - 6"

3N
A406
06-WOMENS RESTROOM N
1/4" = 1'-0"



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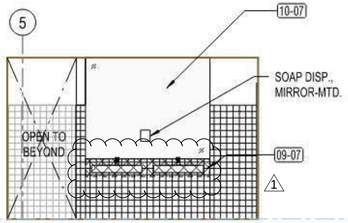

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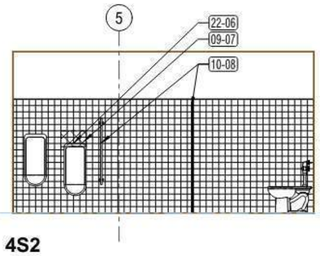

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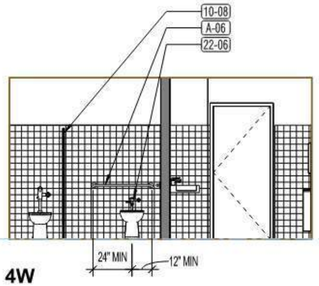
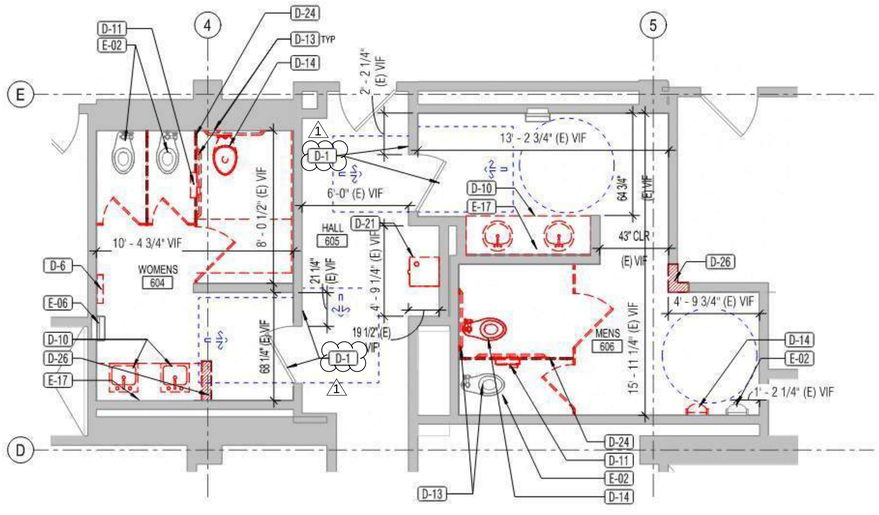


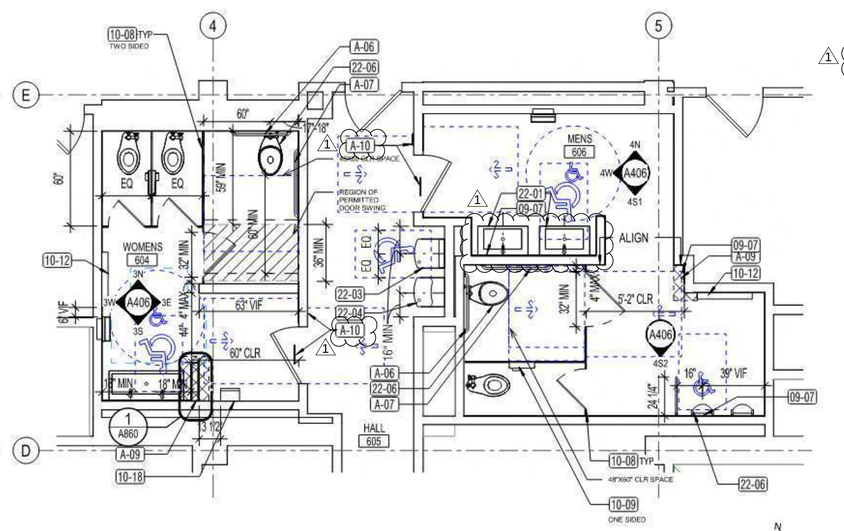
4W

06 - SIXTH LEVEL
78' - 6"

4N
A406
06-MENS RESTROOM N
1/4" = 1'-0"



1 A406 **06 -DEMO ENLARGED PLAN - 6TH LEVEL RESTROOMS**
1/4" = 1'-0"



2 A406 **06 -ENLARGED FLOOR PLAN - 6TH LEVEL RESTROOMS**
1/4" = 1'-0"

DEMOLITION PLAN NOTES

1. PATCH AND REPAIR ALL FLOORING SUBSTRATES, WALLS, AND CEILINGS AS REQD TO PROVIDE SMOOTH SURFACES FOR (N) FINISHES.
2. SEE MEP DWGS FOR ADDL DEMO WORK.
3. DIMENSIONS PROVIDED ON THE DRAWING ARE FOR REFERENCE ONLY; CONTRACTOR SHALL PROVIDE FIELD VERIFICATION AS REQD IN AREA OF WORK.

RESTROOM PLAN NOTES

1. FOR ACCESSIBLE FIXTURE AND ACCESSORY MOUNTING HEIGHTS, SEE **1/G003**.
2. FOR GRAB BAR BACKING, SEE SHEET **2/A860**.
3. PROVIDE BACKING FOR WALL-HUNG FIXTURES
4. FOR TYP TOILET PARTITION ANCHORAGE, SEE **4/A860**.
5. DIMENSIONS ON THIS SHEET ARE TO F.O. FINISH, UON.
6. FOR BABY CHANGING STATION MTG HTS AND DETAIL, SEE **3/A860.**
7. FOR DOOR AND WALL SIGNAGE, SEE G003.1

1

KEYNOTE LEGEND	
Key Value	**Keynote Text**
09-07	PATCH WALL TILE TO MATCH EXISTING. PATCH FLOOR TILE WHERE INDICATED.
10-07	PROVIDE FULL HEIGHT MIRROR TO UNDERSIDE OF CEILING
10-08	PROVIDE TOILET PARTITIONS
10-09	PROVIDE PARTITION MOUNTED COMBO SEAT COVER-TOILET-TISSUE DISPENSER
10-12	PROVIDE STAINLESS STEEL WALL-MOUNTED BABY CHANGING STATION
10-18	PROVIDE SURFACE-MOUNTED NAPKIN DISPENSER
10-19	PROVIDE RECESSED COMBO SEAT COVER-TOILET-TISSUE DISPENSE
22-01	PROVIDE WALL MOUNTED LAV & FAUCET(S), SPD
22-03	INSTALL SALVAGED CHILLED WATER FOUNTAIN WITH BOTTLE FILLER IN NEW LOCATION AT SITTING HEIGHT, SPD AND 1/G300
22-04	PROVIDE CHILLED WATER FOUNTAIN AT STANDING HEIGHT, SPD AND 1/G300
22-06	PROVIDE TOILETS AND URINALS TO REPLACE (E) FIXTURES IN NEW LOCATION. REFER TO PLUMBING DRAWINGS
A-06	36" MIN. GRAB BAR, USE SALVAGED WHERE AVAILABLE
A-07	42" MIN. GRAB BAR, USE SALVAGED WHERE AVAILABLE
A-09	REBUILD PARTITION TO CREATE CODE COMPLIANT CLEARANCE. PATCH TILE TO MATCH EXISTING, WHERE WALL WAS REMOVED. TILE NEW PARTITION TO MATCH EXISTING TILE.
A-10	PROVIDE DOOR SIGNAGE AND ROOM ID SIGNAGE. SEE G300.1 FOR REQUIREMENTS & MOUNTING HEIGHTS
D-1	REMOVE EXISTING SIGNAGE FROM WALL AND RESTROOM DOOR. REPAIR FINISHES.
D-6	REMOVE (E) SANITARY NAPKIN VENDING MACHINE, TURN OVER TO OWNER
D-10	REMOVE EXISTING COUNTER, LAVATORIES, FIXTURES, AND SOAP DISPENSERS
D-11	REMOVE EXISTING COMBO SEAT COVER-TOILET-TISSUE DISPENSER
D-13	REMOVE EXISTING GRAB BAR FROM DEMOLISHED PARTITION, AND SALVAGE FOR REINSTALLATION IN NEW PARTITION
D-14	REMOVE EXISTING TOILETS OR URINALS AND PREP FOR NEW. CAP OFF UTILITIES. TILE TO BE PATCHED TO MATCH EXISTING AFTER INSTALLATION OF NEW FIXTURES.
D-21	REMOVE & SALVAGE EXISTING DRINKING FOUNTAIN WITH BOTTLE FILLER
D-24	REMOVE (E) TOILET PARTITIONS. SALVAGE TOILET PAPER DISPENSERS AND TURN OVER TO OWNER
D-26	REMOVE (E) PARTITION IN ORDER TO CREATE ADEQUATE CLEARANCE. PATCH AND REPAIR WALL TO RECEIVE NEW TILE.
E-02	EXISTING PLUMBING FIXTURE(S) TO REMAIN.
E-06	EXISTING PT DISPENSER & DISPOSAL TO REMAIN
E-17	EXISTING MIRROR, TYP

LEGEND

REMOVE (E) WALL OR ASSEMBLY

REMOVE (E) WALL FINISH OR SURFACE ELEMENT

EXISTING (E) TO REMAIN

FLOOR AND/OR WALL FINISH PATCH TO MATCH OR AS DIRECTED

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LICENSED ARCHITECT
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Project

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Project No. 2024.0881.0
Date 11 OCT 2025 PLAN CHECK COMMENTS
Drawn
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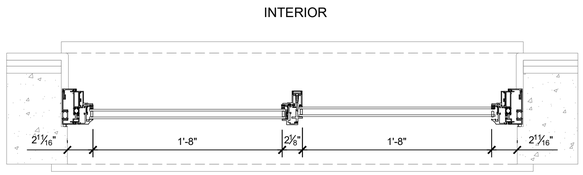
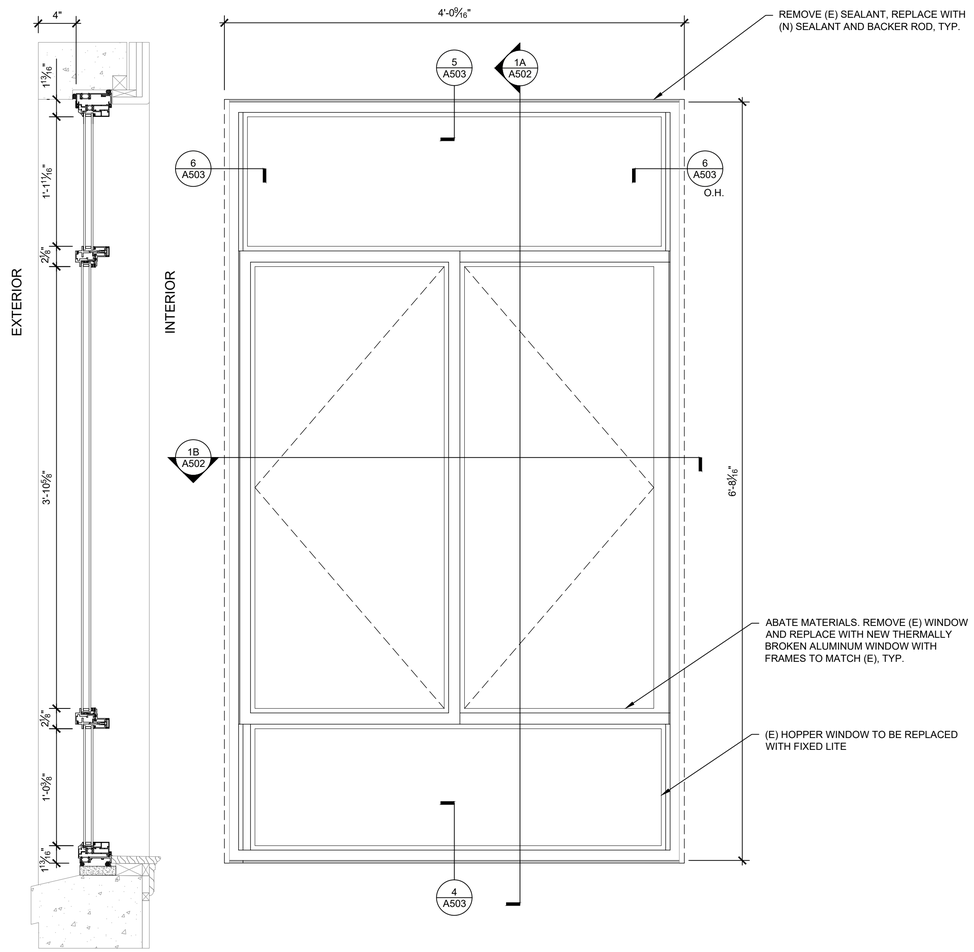
Sheet Title: ENLARGED PLANS AND ELEVATIONS - 6TH FLOOR

Sheet No. **A406**

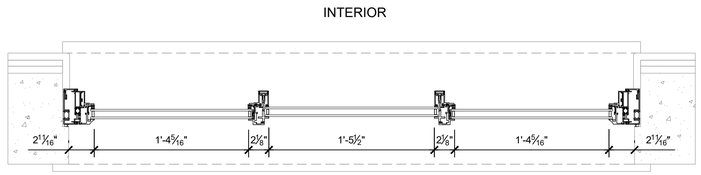


B PLAN - SECTION

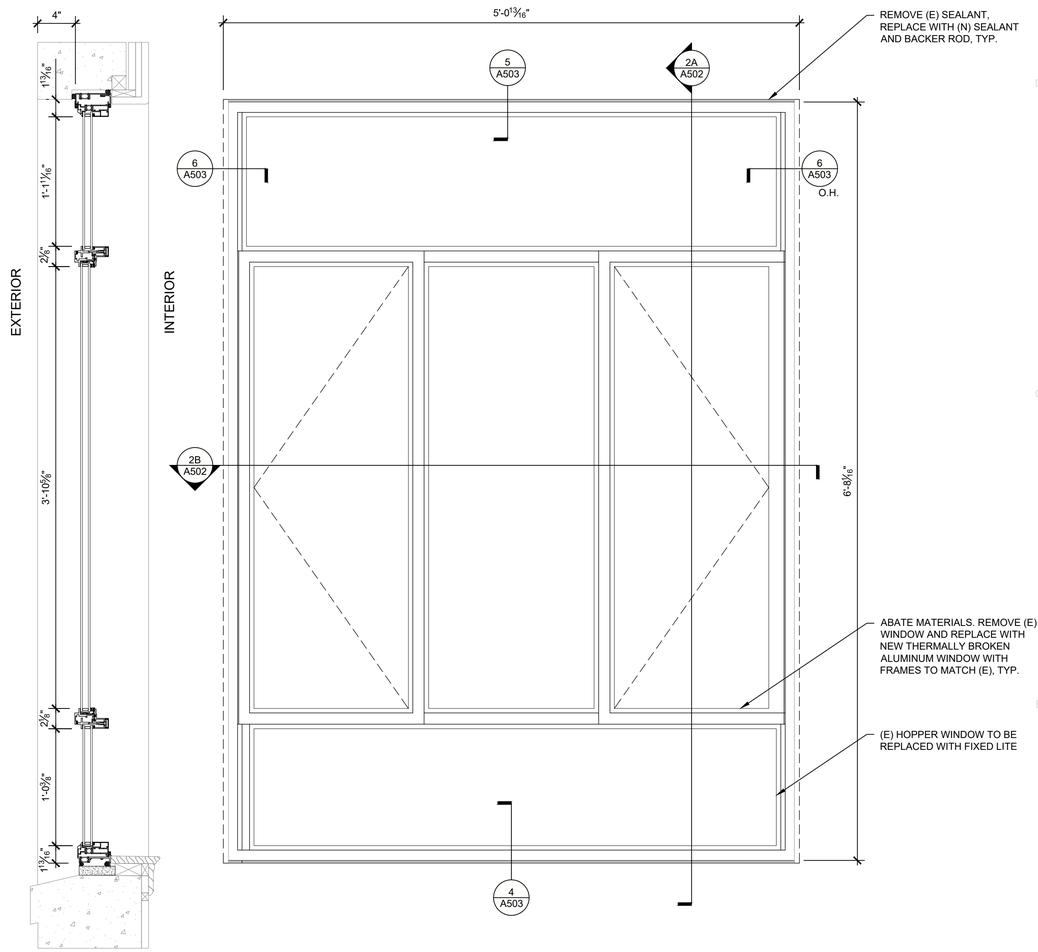


A SECTION

1 WINDOW REPLACEMENT ELEVATION 01
SCALE: 1 1/2" = 1'-0"



B PLAN - SECTION



A SECTION

2 WINDOW REPLACEMENT ELEVATION 02
SCALE: 1 1/2" = 1'-0"

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LICENSED ARCHITECT
ANDREW J. BLASZAK
No. C 36411
Exp. 03/31/25
STATE OF CALIFORNIA

Consultants

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

NOLL & TAM ARCHITECTS
729 HEINZ AVENUE
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Date 14 NOV 2025 PLAN CHECK COMMENTS
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Checked AJB
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Sheet Title
WINDOW REPLACEMENT ELEVATIONS

Sheet No. **A502**

Plotted: 11/14/2025 7:29 PM by LeBlanc, Katie File Name: P:\2024\0024 Docs\2024.0881.0 - 1947 CENTER ST - ENERGY RETROFIT (ABJ)\5 Construction Documents\1 Drawings\Sheet\2024_0881_0-A502.dwg
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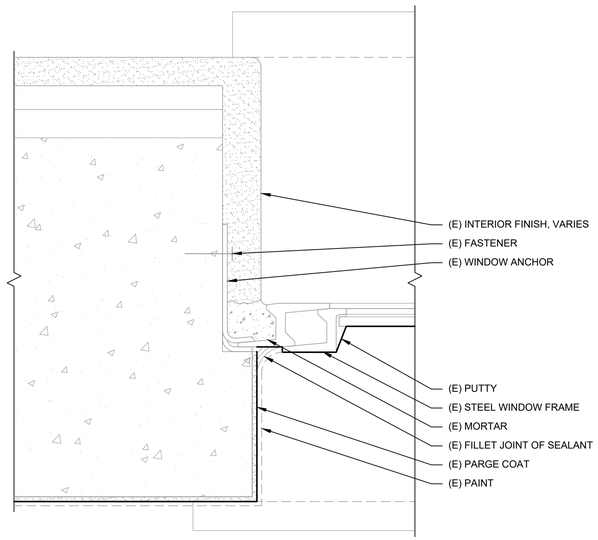
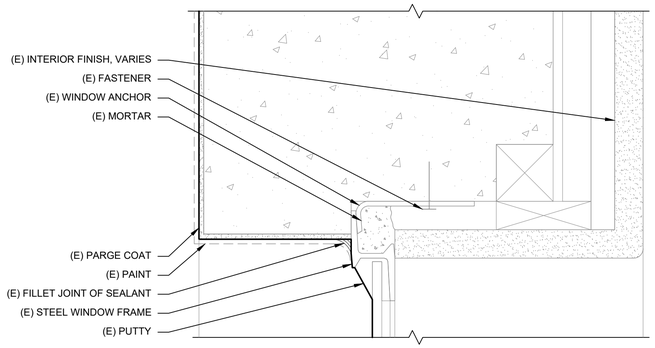
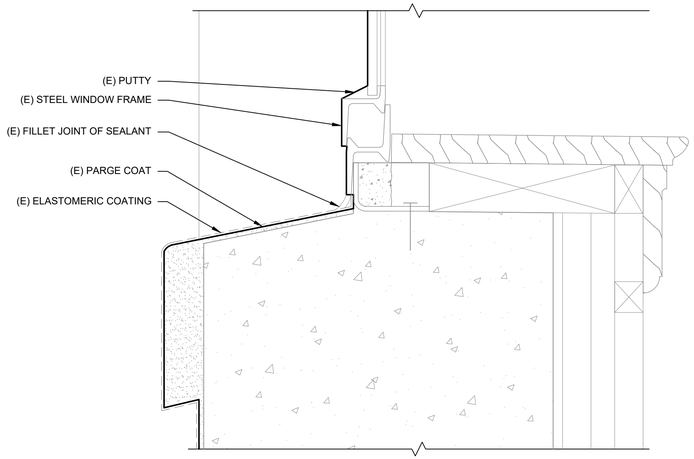


3 EXISTING JAMB
SCALE: 6" = 1'-0"



2 EXISTING HEAD
SCALE: 6" = 1'-0"



1 EXISTING SILL
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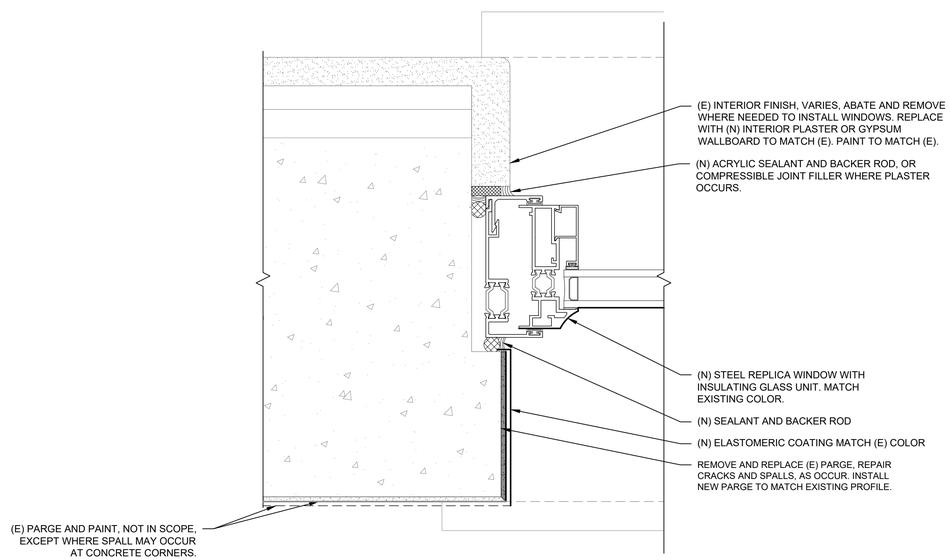

6 REPLACEMENT JAMB
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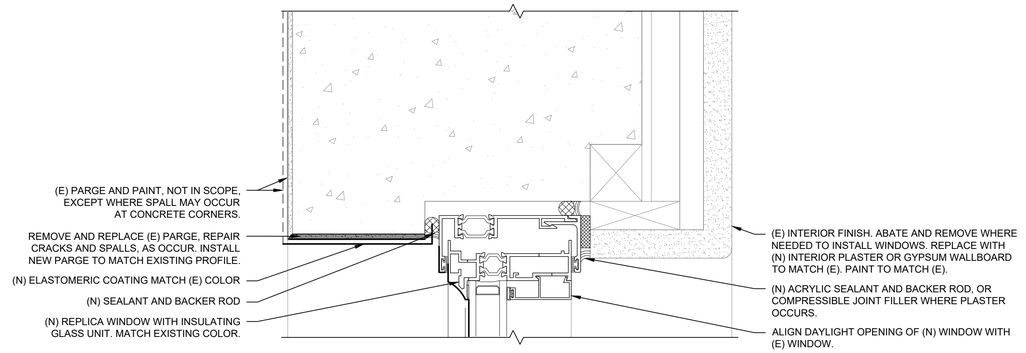
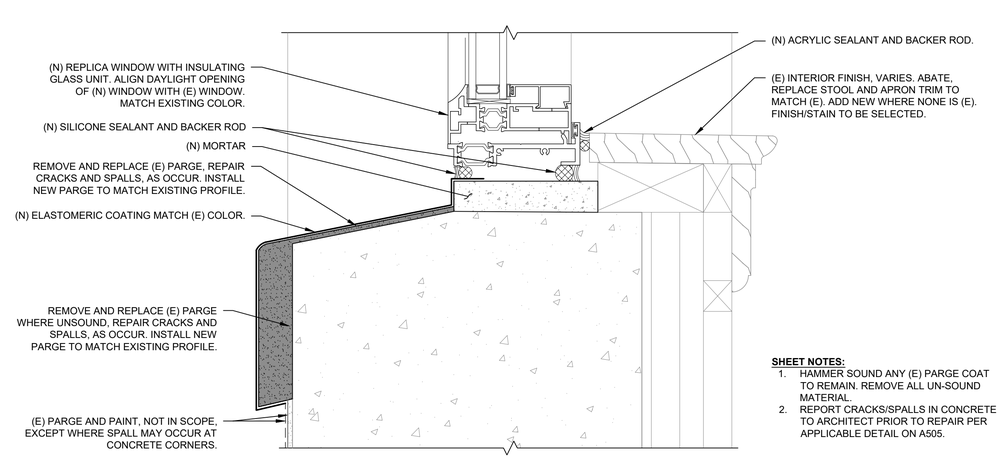


5 REPLACEMENT HEAD
SCALE: 6" = 1'-0"



SHEET NOTES:
1. HAMMER SOUND ANY (E) PARGE COAT TO REMAIN. REMOVE ALL UN-SOUND MATERIAL.
2. REPORT CRACKS/SPALLS IN CONCRETE TO ARCHITECT PRIOR TO REPAIR PER APPLICABLE DETAIL ON A505.

4 REPLACEMENT SILL
SCALE: 6" = 1'-0"

WJE

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LICENSED ARCHITECT
ANDREW J. BLIGH
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Exp. 03/31/25
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Project No. 2024.0881.0
Date 14 NOV 2025 PLAN CHECK COMMENTS
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Sheet Title
WINDOW REPLACEMENT DETAILS

Sheet No. **A503**

Plotted: 11/14/2025 7:30 PM by LeBlanc, Kalia File Name: P:\2024\2024.0xx\2024.0881.0 - 1947 CENTER ST - ENERGY RETROFIT (AJB)\5 Construction Documents\1 Drawings\Sheet\2024_0881_0-A503.dwg

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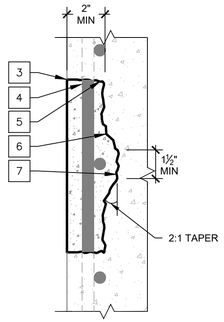
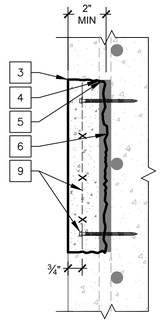
1. SPALL REPAIRS TO BE GENERALLY RECTANGULAR IN SHAPE WITH NO REENTRANT CORNERS.
2. SPALL REPAIR FINISH, TEXTURE, AND COLOR TO MATCH ADJACENT CONCRETE.
3. SAW CUT AROUND THE PERIMETER OF THE REPAIR AREAS, DO NOT OVER RUN CUTS AT CORNERS. SAW CUT DEPTH: 1/2" MIN.
4. CHECK REPAIR AREAS FOR EMBEDDED ITEMS USING NON-DESTRUCTIVE MEANS BEFORE CUTTING. DO NOT SAW THROUGH REINFORCING OR OTHER EMBEDDED ITEMS.
5. GRIND OR CHIP SQUARE THE REPAIR AREA EDGES TO PROVIDE A UNIFORM, STRAIGHT EDGE.
6. REMOVE CONCRETE AS FOLLOWS:
   a. ALL UNSOUND MATERIAL
   b. A MINIMUM DEPTH OF 2" UNLESS NOTED OTHERWISE.
7. WHERE 50% OR MORE OF EXISTING REINFORCING IS EXPOSED, CHIP AROUND BAR TO ENCAPSULATE IT ENTIRELY IN THE SPALL REPAIR, PROVIDE 3/4" MINIMUM CLEAR AROUND BAR.
8. PREPARE SPALL REPAIR SUBSTRATE TO SPECIFIED CONCRETE SURFACE PROFILE (CSP) 7 OR HIGHER, PER ICRI 310.2R.
9. WHERE VERTICAL AND OVERHEAD SPALL REPAIRS WILL NOT OTHERWISE CONTAIN ORIGINAL OR SUPPLEMENTAL REINFORCING, PROVIDE SPALL REPAIR REINFORCING CONSISTING OF S.S. WELDED WIRE FABRIC AND 1/4" x 2" S.S. SCREW ANCHORS AT 12" O.C.
10. IF THE EXISTING REINFORCING HAS LESS THAN 1/2" COVER NOTIFY THE ARCHITECT.
11. ADD (N) REINF. BARS TO SUPPLEMENT (E) BARS THAT ARE DAMAGED.

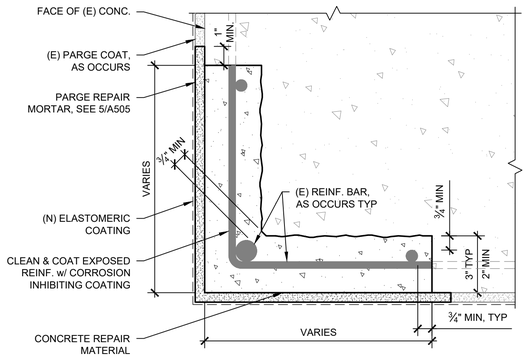


A Patch Includes Rebar



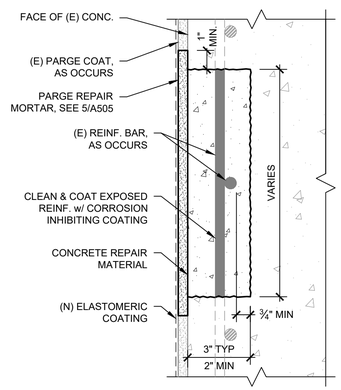
B Patch Does Not Include Rebar

3 TYPICAL SPALL REPAIR REQUIREMENTS
SCALE: 3" = 1'-0"



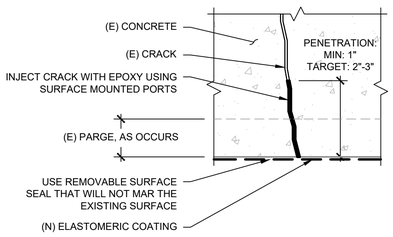
NOTE:
1. SEE 3/A505 FOR TYPICAL SPALL REPAIR REQUIREMENTS.

2 CONCRETE SPALL REPAIR AT CORNER
SCALE: 3" = 1'-0"

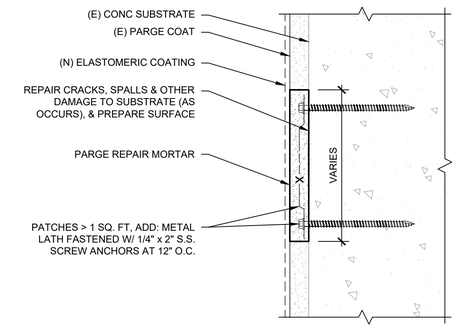


NOTE:
1. SEE 3/A505 FOR TYPICAL SPALL PATCH REQUIREMENTS.

1 CONCRETE SPALL REPAIR
SCALE: 3" = 1'-0"

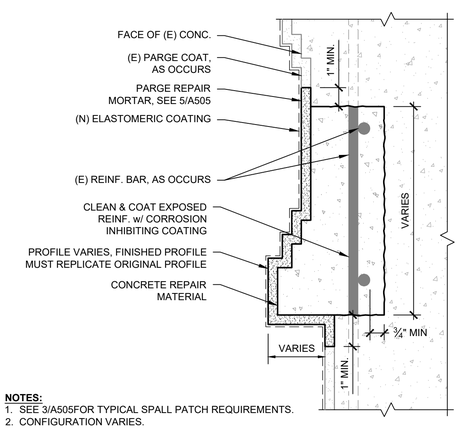


6 CRACK INJECTION - PARTIAL PENETRATION
SCALE: 1" = 1'-0"



NOTE:
1. SEE 3/A505 FOR TYPICAL SPALL PATCH REQUIREMENTS.

5 PARGE COAT PATCH
SCALE: 6" = 1'-0"



NOTES:
1. SEE 3/A505FOR TYPICAL SPALL PATCH REQUIREMENTS.
2. CONFIGURATION VARIES.

4 CONCRETE ORNAMENTAL SPALL PATCH
SCALE: 3" = 1'-0"

SHEET NOTES:
1. SEVERAL OF THESE DETAILS MAY NOT BE NEEDED. THEY ARE INCLUDED TO FORM THE BASIS OF WORK FOR CHANGE ORDERS THAT MAY BE REQUIRED FOLLOWING THE COMPLETION OF HAMMER SOUNDING SURVEY OF THE CONCRETE ROUGH OPENINGS.
2. CONTRACTOR SHALL PROVIDE A UNIT COST FOR DETAILS 1, 2, 4, 5, AND 6

WJE

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2000 Powell Street, Suite 1650
Emeryville, California 94608
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Atlanta | Austin | Boston | Chicago | Cleveland | Dallas | Denver | Detroit Doylestown | Honolulu | Houston | Indianapolis | London | Los Angeles Milwaukee | Minneapolis | New Haven | Northbrook (HQ) | New York Pittsburgh | Philadelphia | Portland | Princeton | Raleigh | San Antonio San Diego | San Francisco | Seattle | South Florida | Washington, DC

LICENSED ARCHITECT — ANDREW J. BLAKE — No. C 36411 — Exp. 03/31/25 — STATE OF CALIFORNIA

Consultants

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

NOLL & TAM ARCHITECTS
729 HEINZ AVENUE
BERKELEY, CA 94710

Mark	Date	Description
	02/18/2026	ISSUED FOR 3RD CORRECTION
	11/14/2025	FOR PERMIT

0 1/2" 1" 2"
THIS SHEET PLOTS FULL SIZE AT 22X34 (INCHES)

Project No.	2024.0881.0
Date	14 NOV 2025 PLAN CHECK COMMENTS
Drawn	KL/JAW
Checked	AJB
Scale	As Noted

Sheet Title: CONCRETE REPAIR DETAILS

Sheet No.: **A505**

Posted: 11/14/2025 7:37 PM by LeBlanc, Katie File Name: P:\2024\0000\2024.0881.0 - 1947 CENTER ST - ENERGY RETROFIT (AJB)\5 Construction Documents\1 Drawings\Sheet\2024_0881_0-A505.dwg

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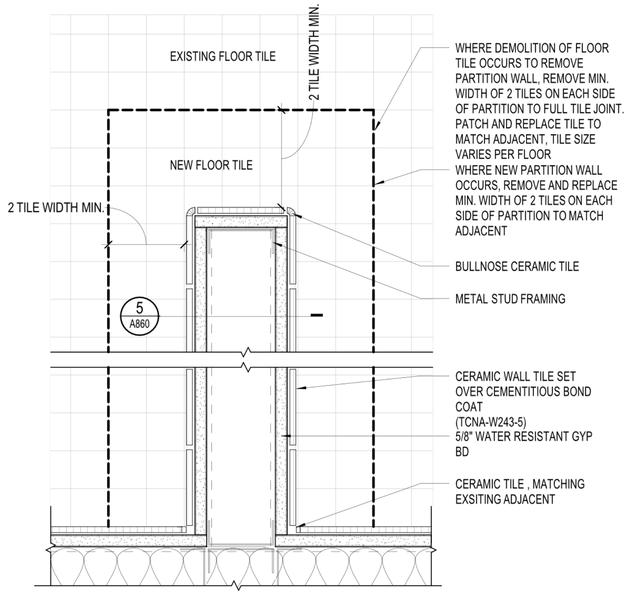
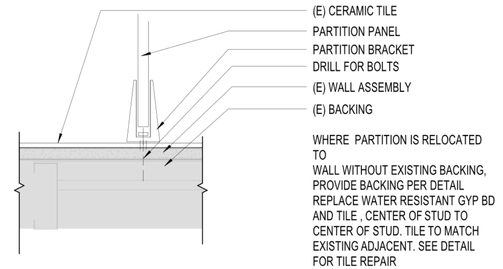
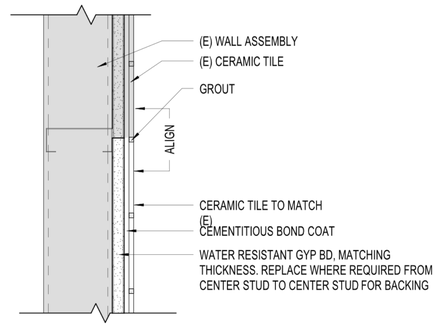


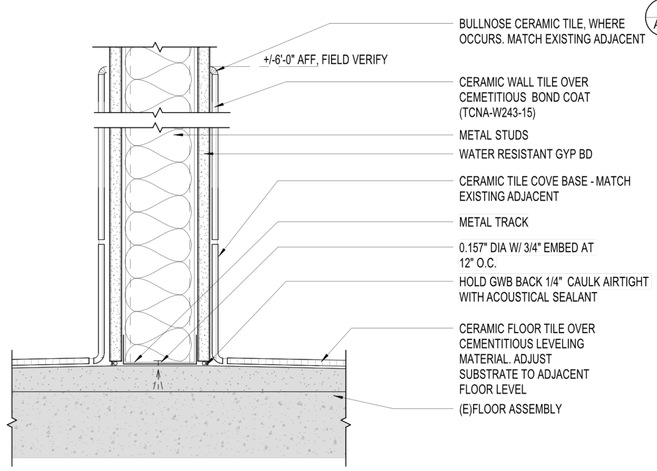
7 A860 **CERAMIC TILE AT PARTITION - PLAN**
3"= 1'-0"



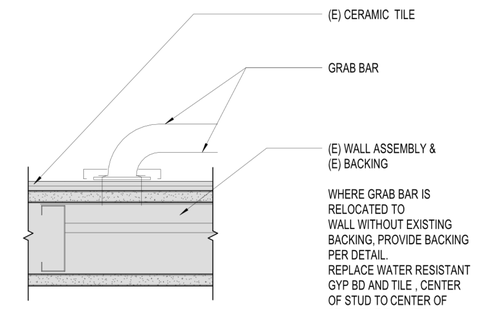
4 A860 **TOILET PARTITION ANCHOR**
3"= 1'-0"



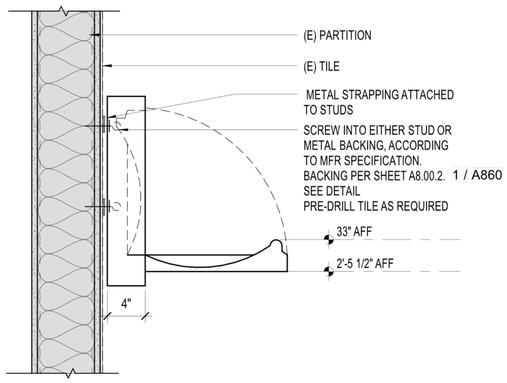
1 A860 **CERAMIC WALL TILE PATCH**
3"= 1'-0"



5 A860 **CERAMIC TILE WAINSCOT**
3"= 1'-0"



2 A860 **GRAB BAR BACKING**
3"= 1'-0"



3 A860 **BABY CHANGING STATION**
1 1/2"= 1'-0"

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LICENSED ARCHITECT
JANET TAM
No. C-14064
REN. 01-31-27
STATE OF CALIFORNIA
Date signed: 11/01/2025

Project

HISTORIC STEEL WINDOW REPLACEMENT
1947 CENTER STREET
BERKELEY, CA 94704

Client

CITY OF BERKELEY

Mark	Date	Description
	02/18/2026	ISSUED FOR 3RD CORRECTION
	11/14/2025	
		FOR PERMIT

0 1/2" 1"
THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

Project No. 2024.0881.0
Date 11 OCT 2025 PLAN CHECK COMMENTS
Drawn
Checked
Scale As Noted

INTERIOR RESTROOM DETAILS

Sheet Title

Sheet No. **A860**

Plotted: 10/6/2025 3:07 PM by Lia, Jasmine File Name: P:\2024\0924.0xx\0204.0881.0 - 1947 CENTER ST – ENERGY RETROFIT (AJ)\5 Construction Documents\1 Drawings\Sheets\0204_0881_0-A860K.dwg
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PLUMBING LEGEND

SYMBOLS	ABB'R	SERVICE
K 1		EQUIPMENT IDENTIFICATION
1 P1.0		DETAIL OR SECTION SHEET NUMBER
		NORTH ARROW (REFERENCE)
		POINT OF CONNECTION (POC) OR EXTENT OF WORK
		POINT OF DEMOLITION
1		KEYED NOTE
		FIRE SPRINKLER HEAD
	FP	FLEXIBLE CONNECTION
		(E) PIPE TO BE REMAIN
		(E) PIPE TO BE REMOVED
	(N)	NEW
	(E)	EXISTING
	AP/AD	ACCESS PANEL/ACCESS DOOR
	UP	ALL SERVICES
	DN	ALL SERVICES
	VR-VTR	VENT RISE - VENT THRU ROOF
		DIRECTION OF FLOW
S/W	S/W	SANITARY OR WASTE
SD	SD	STORM DRAIN
FS	FS	FIRE SPRINKLER
CW	CW	COLD WATER
HW	HW	HOT WATER
HWR	HWR	HOT WATER RETURN
V	V	VENT
G	G	GAS
CD	CD	CONDENSATE DRAIN
FCO	FCO	FLOOR CLEANOUT
		3-WAY CONTROL VALVE
		2-WAY CONTROL VALVE
	BC	BALANCING COCK
		BALANCING VALVE
		BALL VALVE
	BV	BUTTERFLY VALVE
	PRV	PRESSURE REDUCING VALVE
	TCV	TEMPERATURE CONTROL VALVE
	GV	GATE VALVE
	GLV	GLOBE VALVE
	CKV	CHECK VALVE
		STRAINER
	AVA	AIR VENT VALVE-AUTOMATIC
	AVM	AIR VENT VALVE-MANUAL
	PGA	PRESSURE GAUGE
	U	UNION CONNECTION
PP T		PETE'S PLUG
TP	TP	FLOOR DRAIN TRAP PRIMER
	TH	THERMOMETER
T	T	THERMOSTAT
		TEMPERATURE GAUGE
		TEMPERATURE SENSOR
FS		FLOW SWITCH/SENSOR
P		PRESSURE SENSOR/TRANSMITTER
MS		MAGNETIC STARTER
DI		DIGITAL INPUT
DO		DIGITAL OUTPUT
AI		ANALOG INPUT
DO		ANALOG OUTPUT
		ELECTRICAL CONTROL WIRING
		PNEUMATIC CONTROL

ABBREVIATIONS

ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BHP	BRAKE HORSEPOWER/BOILER HORSEPOWER
BOP	BOTTOM OF PIPE
CFF	CAP FOR FUTURE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CTE	CONNECT TO EXISTING
DN	DOWN
(D)	DISPOSE
(E)	EXISTING
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
F	FIRE SPRINKLER
FC	FLEXIBLE CONNECTION
FPM	FEET PER MINUTE
FSD	FIRE SMOKE DETECTOR
HTR	HEATER
HW	HOT WATER
180KHW	180 KITCHEN HOT WATER
HWR	RECIRCULATING HOT WATER
MFR	MANUFACTURER
(N)	NEW
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
PG	PRESSURE GAUGE
PLBG	PLUMBING
POC	POINT OF CONNECTION
PSI	POUND PER SQUARE INCH
PSIG	POUND PER SQUARE INCH GAUGE
(R)	RELOCATED
RF	RETURN FAN
(R)	RELOCATE
RIO	ROUGH IN ONLY
RPM	REVOLUTION PER MINUTE
(S)	SALVAGE TO BE RE-INSTALLED
SF	SUPPLY FAN
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
TH	THERMOMETER
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VTR	VENT THRU ROOF
WPD	WATER PRESSURE DROP
WP	WEATHER OR WATER PROOF
WT	WEIGHT

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE LOCAL AND STATE CODES AND REGULATIONS:
   - CALIFORNIA BUILDING CODE 2022
   - CALIFORNIA MECHANICAL CODE 2022
   - CALIFORNIA PLUMBING CODE 2022
   - CALIFORNIA FIRE CODE 2022
   - CALIFORNIA ELECTRICAL CODE 2022
2. ALL PIPING SHOWN ON PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION. CERTAIN VERTICAL AND HORIZONTAL DIMENSIONS ARE SHOWN IN DUCTS AND PIPES TO INDICATE THEIR GENERAL POSITION IN RELATIONSHIP TO THE SYSTEMS WITHIN THE SPACE AVAILABLE FOR SYSTEM INSTALLATION. PROVIDE ADDITIONAL PIPING OFFSETS AS REQUIRED, AND TO COORDINATE WITH INSTALLATION REQUIREMENTS OF OTHER SYSTEMS AT NO ADDITIONAL COST TO THE OWNER. ALL DIMENSIONS ARE IN INCHES OR OTHERWISE NOTED.
3. WHERE EXISTING CONSTRUCTION IS CUT, DAMAGED, OR REMODELED, PATCH WITH MATERIALS TO MATCH IN KIND, QUALITY, AND PERFORMANCE.
4. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR SAFETY OF ALL PERSONS IN OR ABOUT THE CONSTRUCTION SITE, IN ACCORDANCE WITH APPLICABLE LAWS AND CODES. GUARD ALL HAZARDS IN ACCORDANCE WITH THE SAFETY PROVISIONS OF THE LATEST MANUAL OF ACCIDENT PREVENTION PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA AND CAL-OSHA.
5. REFER TO SMACNA SEISMIC GUIDELINES AND STANDARDS FOR PIPE SUPPORT AND EQUIPMENT SEISMIC BRACINGS.
6. COORDINATE WORK WITH THE OWNER AND ALL OTHER TRADES.
7. SEAL AIR TIGHT ALL PIPE PENETRATIONS THROUGH WALL. SEALANT SHALL BE 3M BRAND PRODUCTS OR APPROVED EQUAL. BRACE ALL PIPES AND EQUIPMENT TO WITHSTAND FORCES AS REQUIRED BY THE STATE AND LOCAL CODES.
8. PROTECT THE PUBLIC FROM INJURY DURING PROGRESS OF WORK BY POSTING WARNING SIGNS, GUARD LIGHTS AND BARRICADES.
9. THE CONTRACTOR SHALL PROVIDE DUST BARRIER PLASTIC COVERS, SCREEN AND TENTING AT ALL TIMES TO CONTAIN DUST AND DEBRIS WITHIN THE DESIGNATED WORK AREA. LOCATING AND INSTALLATION OF DUST PROTECTION COVERS AND TENTING TO BE APPROVED BY THE OWNER PRIOR TO INSTALLING. CONTRACTOR SHALL CLEAN WORK AREA AND REMOVE DEBRIS AT THE END OF EACH WORKING DAY. DISPOSAL OF DEBRIS AND EXCESS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COVER TO PROTECT ALL DUCTWORK OPENINGS, DIFFUSERS AND REGISTERS, RETURN AIR INLETS ABOVE THE CEILING WITHIN THE CONSTRUCTION AREA FROM DUST AND OTHER AIR CONTAMINANTS. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MERV OF 8. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY AS APPLICABLE."
10. THE EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE MAINTAINED IN OPERATION DURING THE DEMOLITION AND INSTALLATION OF NEW WORK. WHEN A SYSTEM SHUTDOWN IS NECESSARY, OBTAIN A WRITTEN APPROVAL FROM THE OWNER MINIMUM 10 WORKING DAYS PRIOR TO SHUTTING DOWN OF ANY MECHANICAL ELECTRICAL SYSTEMS. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MERV OF 8. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY AS APPLICABLE
11. VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. VERIFY DIMENSIONS OF OWNER FURNISHED EQUIPMENT TO ENSURE PROPER COORDINATION WITH CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND. NO ALLOWANCE SHALL BE MADE FOR ANY EXPENSE TO WHICH THE CONTRACTOR MAY INCUR DUE TO FAILURE OR NEGLECT ON HIS PART TO MAKE SUCH VERIFICATION.
12. ANY ERRORS, OMISSIONS OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER AND OWNER BEFORE PROCEEDING WITH THE WORK.
13. CUTTING OR PENETRATIONS THROUGH EXISTING CONCRETE WALL, FLOOR OR ROOF SHALL BE VERIFIED FOR STRUCTURAL REINFORCEMENTS. X-RAY ARE REQUIRED TO LOCATE EXISTING REINFORCING BARS PRIOR TO CONCRETE CORE DRILLING OR CUTTING. OBTAIN STRUCTURAL ENGINEER'S WRITTEN APPROVAL PRIOR TO CORE DRILLING AND CUTTING. DRILLING INTO REINFORCING BAR IS PROHIBITED.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF WORK AT HIS OWN EXPENSE FOR WORK INSTALLED IN CONFLICT WITH CONSTRUCTION DOCUMENTS.
15. CONTRACTOR SHALL LEAVE PREMISES AND ALL AFFECTED AREAS CLEAN AND IN ORDERLY MANNER READY FOR MOVE-IN OR FACILITY OPERATION.
16. PROVIDE ADEQUATE CLEARANCE AND ACCESS TO EQUIPMENT FOR SERVICE AND MAINTENANCE. EQUIPMENT CLEARANCES SHALL MEET THE REQUIREMENT OF THE MANUFACTURER AND APPLICABLE BUILDING CODES.
17. EXPLORATORY WORK TO SEARCH FOR PIPING, PLUMBING OR DUCT FOR CONNECTIONS TO EXISTING BUILDING SYSTEM INCLUDING POINT OF CONNECTIONS UNDER FLOOR SLAB, IN WALLS AND CEILING SHALL BE INCLUDED AT NO COST TO THE OWNER. CUTTING, PATCHING AND RESTORATION OF FLOORS, WALLS, CEILING AND FINISH SHALL BE INCLUDED IN THIS WORK AT NO COST TO THE OWNER. RESTORATION OF WALL OR FLOOR FINISH SHALL MATCH EXISTING.
18. ALL PLUMBING PIPING MATERIAL, PLUMBING FIXTURE, VALVE, FITTINGS AND ACCESSORIES SHALL BE 'LEAD-FREE' IN ACCORDANCE WITH CALIFORNIA REGULATION AB1953. PROVIDE SUBMITTAL FROM MANUFACTURER'S FOR COMPLIANCE.
19. THE EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE MAINTAINED IN OPERATION DURING THE DEMOLITION AND INSTALLATION OF NEW WORK. WHEN A SYSTEM SHUTDOWN IS NECESSARY, OBTAIN A WRITTEN APPROVAL FROM THE OWNER PRIOR TO SHUTTING DOWN OF ANY MECHANICAL AND ELECTRICAL SYSTEMS.
20. CLEANOUTS FOR SANITARY SEWER BRANCH SERVING WATER CLOSET SHALL BE INSTALLED ABOVE THE RIM OF BOWL.
21. ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL PROVIDED WITH APPROVED 3M FIRE STOPPING. REFER FOR ARCHITECTURAL DRAWINGS FOR DETAILS.

SCOPE OF WORK

GENERAL: THIS SCOPE OF WORK IS AN OUTLINE OF WORK INVOLVE FOR THIS PROJECT AND IS NOT INTENDED TO DESCRIBE THE COMPLETE SCOPE OF WORK. THE DETAILED REQUIREMENTS ARE INDICATED ON EACH DRAWING AND SPECIFICATION SECTION.

1. REMOVE AND DISPOSE EXISTING PLUMBING FIXTURES AS INDICATED. REMOVE, SALVAGE AND REINSTALL EXISTING DRINKING FOUNTAINS FOR BASEMENT, 1ST, 2ND, 4TH, 5TH AND 6TH FLOORS. (1)
2. PROVIDE NEW PLUMBING FIXTURES AS INDICATED. MODIFY AND EXTEND EXISTING PLUMBING UTILITIES AS REQUIRED.
3. PRESSURE TEST ALL PLUMBING PER CPC 2022.
4. FLUSH AND DISINFECT ALL WATER PIPING AND EQUIPMENT PER CPC 2022 AND AS SPECIFIED.

DRAWING INDEX

P1.00 PLUMBING LEGEND, SYMBOLS, ABBREVIATIONS, GENERAL NOTES & SCOPE OF WORK
P2.05 5TH LEVEL RESTROOM PLANS PLUMBING
P2.06 6TH LEVEL RESTROOM PLANS PLUMBING
P3.00 PLUMBING FIXTURE SCHEDULE AND SPECIFICATIONS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
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SEAL

REGISTERED PROFESSIONAL ENGINEER · EDWARD C. PADILLA · No. 27070 · EXP. 12/31/25 · MECHANICAL · STATE OF CALIFORNIA
11-17-25

EDDIE PADILLA CONSULTING ENGINEERS INC.
274 Devonshire Street
Vallejo, CA 94591
(707) 980-4049

APPROVALS

PROJECT TITLE

City of Berkeley
1947 Center Street

Permit Submittal

ISSUE DATE	11/26/2025
N&T JOB NUMBER	22511.00

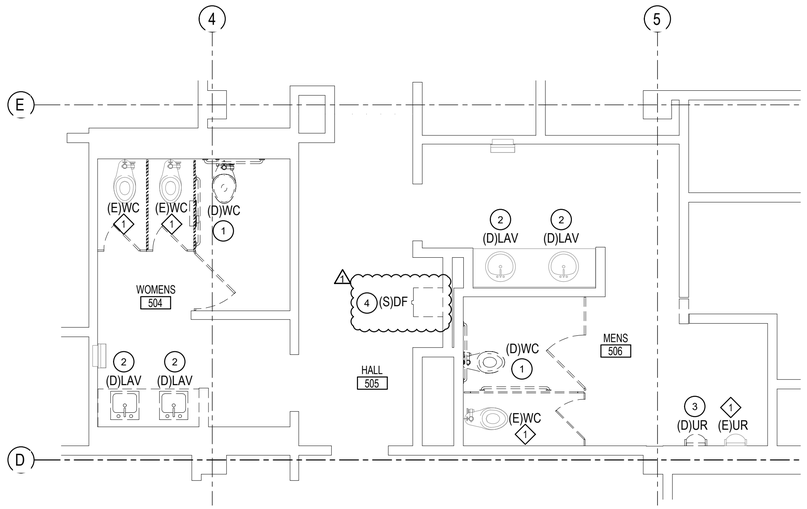
REVISIONS

	DATE	DESCRIPTION
2	02/18/2026	ISSUED FOR 3RD CORRECTION
1	01/09/26	PLUMBING FIXTURE REPLACEMENT AND MODIFICATIONS

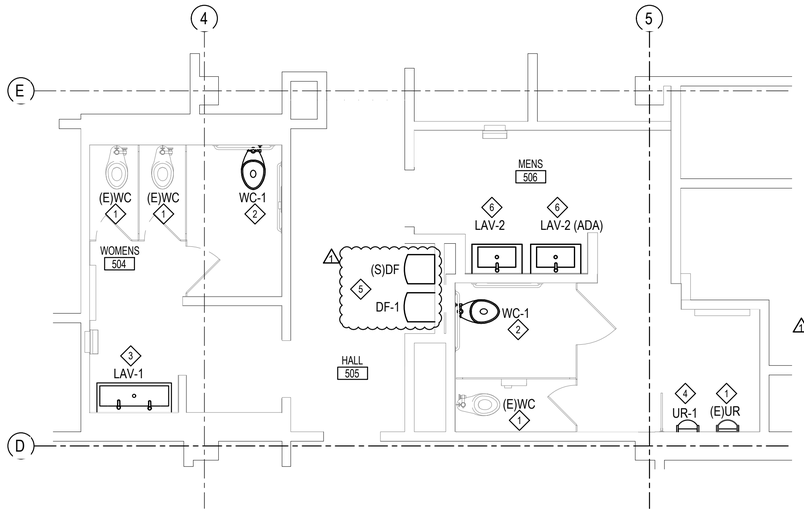
DRAWN BY **EPCE** CHECKED BY **EP**

SHEET TITLE
PLUMBING LEGEND SYMBOLS, ABBV. GENERAL NOTES & SCOPE OF WORK

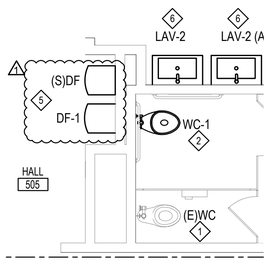
SHEET NUMBER
P1.00



1 P2.05 **DEMO ENLARGED PLAN - 5TH LEVEL RESTROOMS PLUMBING**
1/4" = 1'-0"



2 P2.05 **ENLARGED FLOOR PLAN - 5TH LEVEL-RESTROOMS PLUMBING**
1/4" = 1'-0"



3 P2.05 **ENLARGED PLAN - DRINKING FOUNTAIN FOR BASEMENT, 1ST, 2ND,4TH, 5TH & 6TH FLOORS**
1/4" = 1'-0"

GENERAL NOTES:

1. VERIFY EXISTING PIPING AND EQUIPMENT LOCATION PRIOR TO INSTALLATION OF NEW WORK. COORDINATE CLEARANCES AND ACCESS WITH ARCHITECTURAL DRAWINGS. DETAILS P3.00 APPLIES TO ALL PLUMBING WORK.
2. CONTRACTOR SHALL DETERMINE THE FINAL LOCATION OF THE PLUMBING FIXTURES AND EQUIPMENT. LOCATE PIPING AND WIRING TO CLEAR BUILDING STRUCTURE, EXISTING ELECTRICAL AND OTHER OBSTRUCTIONS. VERIFY INSTALLATION WITH EXISTING CONDITIONS. PROVIDE ADEQUATE ACCESS TO FILTERS, MOTORS AND VALVES.

DEMOLITION/SALVAGE NOTES

1. REMOVE AND DISPOSE EXISTING WATER WATER CLOSET AND ASSOCIATED PLUMBING SUPPORTS AND ANCHORS.
2. REMOVE AND DISPOSE EXISTING LAVATORY AND ASSOCIATED PLUMBING, SUPPORTS AND ANCHORS.
3. REMOVE AND DISPOSE EXISTING URINAL AND ASSOCIATED PLUMBING, SUPPORTS AND ANCHORS.
4. REMOVE AND SALVAGE EXISTING DRINKING FOUNTAIN WITH BOTTLE FILLER AND ASSOCIATED PLUMBING, POWER SUPPLY, SUPPORTS AND ANCHORS. PREPARE FOR REINSTALLATION IN NEW LOCATION BASEMENT, 1ST, 2ND, 4TH, 5TH AND 6TH FLOORS.

PLUMBING NEW CONSTRUCTION KEYED NOTES:

1. EXISTING PLUMBING FIXTURE TO REMAIN.
2. PROVIDE NEW FLOOR MOUNTED WATER CLOSET WC-1 (ADA). MODIFY AND EXTEND PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE ADDITIONAL CLEANOUTS AS REQUIRED. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
3. PROVIDE NEW WALL MOUNTED LAVATORY LAV-1(ADA). MODIFY AND EXTEND PLUMBING AS REQUIRED FOR HOT AND COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
4. PROVIDE NEW WALL MOUNTED URINAL UR-1 (ADA). MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
5. PROVIDE NEW STANDARD HEIGHT WALL MOUNTED DRINKING FOUNTAIN/COOLER DF-1 FOR BASEMENT, 1ST, 2ND, 4TH, 5TH AND 6TH FLOORS AS SPECIFIED ON P3.00. THE ADA DRINKING FOUNTAIN/WATER COOLERS (S)DF ARE EXISTING AND SHALL BE SALVAGED AND REINSTALLED IN NEW LOCATION. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN, VENTS AND POWER SUPPLY. VERIFY EXISTING PIPING AND POWER CONNECTION CONDITIONS, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
6. PROVIDE NEW WALL MOUNTED LAVATORY LAV-2. MODIFY AND EXTEND PLUMBING AS REQUIRED FOR HOT AND COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.

LEGENDS:

(E) EXISTING TO REMAIN

(D) DEMOLISH AND DISPOSE

(S) SALVEGE AND REINSTALL IN NEW LOCATION

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SEAL

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PROJECT TITLE

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	02/18/2026	ISSUED FOR 3RD CORRECTION

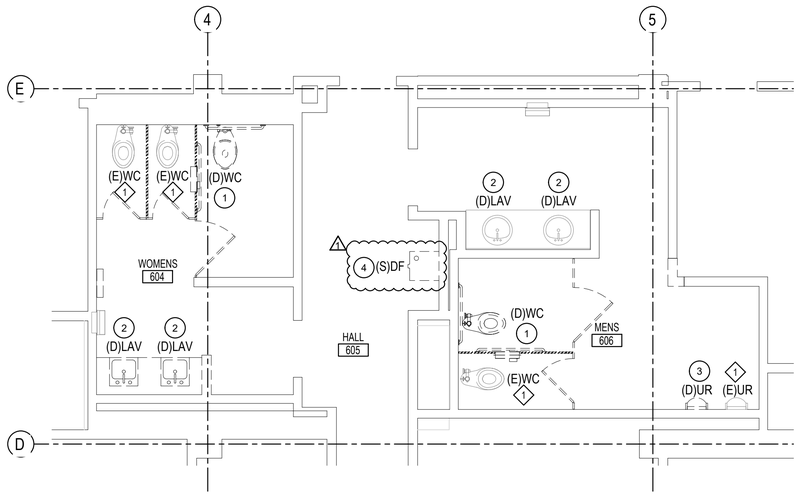
DRAWN BY **EPCE** CHECKED BY **EP**

SHEET TITLE

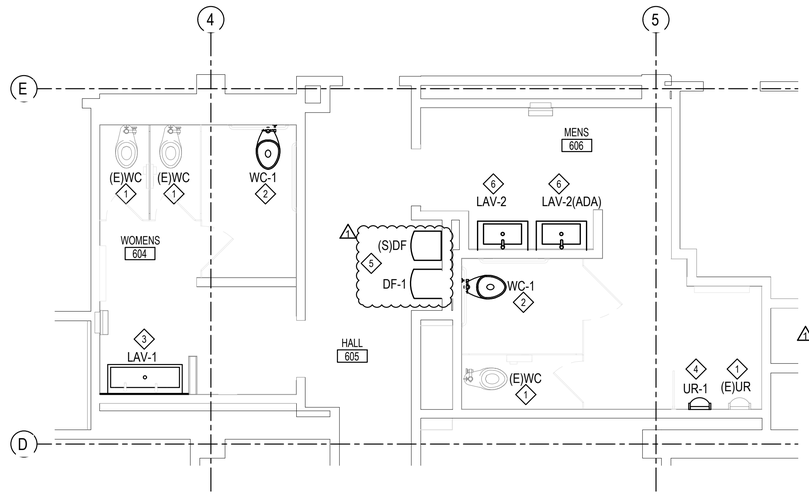
5TH LEVEL RESTROOM PLANS-PLUMBING

SHEET NUMBER

P2.05



1 P2.06 **DEMO ENLARGED PLAN - 6TH LEVEL RESTROOMS PLUMBING**
1/4" = 1'-0"



2 P2.06 **ENLARGED FLOOR PLAN - 5TH LEVEL-RESTROOMS PLUMBING**
1/4" = 1'-0"

GENERAL NOTES:

1. VERIFY EXISTING PIPING AND EQUIPMENT LOCATION PRIOR TO INSTALLATION OF NEW WORK. COORDINATE CLEARANCES AND ACCESS WITH ARCHITECTURAL DRAWINGS. DETAILS P3.00 APPLIES TO ALL PLUMBING WORK.
2. CONTRACTOR SHALL DETERMINE THE FINAL LOCATION OF THE PLUMBING FIXTURES AND EQUIPMENT. LOCATE PIPING AND WIRING TO CLEAR BUILDING STRUCTURE, EXISTING ELECTRICAL AND OTHER OBSTRUCTIONS. VERIFY INSTALLATION WITH EXISTING CONDITIONS. PROVIDE ADEQUATE ACCESS TO FILTERS, MOTORS AND VALVES.

DEMOLITION NOTES

1. REMOVE AND DISPOSE EXISTING WATER WATER CLOSET AND ASSOCIATED PLUMBING SUPPORTS AND ANCHORS.
2. REMOVE AND DISPOSE EXISTING LAVATORY AND ASSOCIATED PLUMBING, SUPPORTS AND ANCHORS.
3. REMOVE AND DISPOSE EXISTING URINAL AND ASSOCIATED PLUMBING, SUPPORTS AND ANCHORS.
4. REMOVE AND SALVAGE EXISTING DRINKING FOUNTAIN WITH BOTTLE FILLER AND ASSOCIATED PLUMBING, POWER SUPPLY, SUPPORTS AND ANCHORS. PREPARE FOR REINSTALLATION IN NEW LOCATION BASEMENT, 1ST, 2ND, 4TH, 5TH AND 6TH FLOORS.

PLUMBING NEW CONSTRUCTION KEYED NOTES:

1. EXISTING PLUMBING FIXTURE TO REMAIN.
2. PROVIDE NEW FLOOR MOUNTED WATER CLOSET WC-1 (ADA). MODIFY AND EXTEND PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE ADDITIONAL CLEANOUTS AS REQUIRED. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
3. PROVIDE NEW WALL MOUNTED LAVATORY LAV-1(ADA). MODIFY AND EXTEND PLUMBING AS REQUIRED FOR HOT AND COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
4. PROVIDE NEW WALL MOUNTED URINAL UR-1 (ADA). MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.
5. PROVIDE NEW DF-1 WALL MOUNTED DRINKING FOUNTAIN/COOLER FOR BASEMENT, 1ST, 2ND, 4TH, 5TH AND 6TH FLOORS AS SPECIFIED ON P3.00. THE ADA DRINKING FOUNTAIN/WATER COOLERS (S)DF ARE EXISTING AND SHALL BE SALVAGED AND REINSTALLED IN NEW LOCATION. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN, VENTS AND POWER SUPPLY. VERIFY EXISTING PIPING AND POWER CONNECTION CONDITIONS, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY. REFER TO DETAIL 3/P2.05.
6. PROVIDE NEW WALL MOUNTED LAVATORY LAV-2. MODIFY AND EXTEND PLUMBING AS REQUIRED FOR HOT AND COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.00 FOR SCHEDULED REQUIREMENTS AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.

LEGENDS:

(E) EXISTING TO REMAIN

(D) DEMOLISH AND DISPOSE

(S) SALVAGE AND REINSTALL IN NEW LOCATION

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SEAL

REGISTERED PROFESSIONAL ENGINEER · EDWARD P. PADILLA · No. 27970 · Exp. 06/30/25 · MECHANICAL · STATE OF CALIFORNIA
11-17-25

EDDIE PADILLA CONSULTING ENGINEERS INC.
274 Devonshire Street
Vallejo, CA 94591
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APPROVALS

PROJECT TITLE

City of Berkeley
1947 Center Street

Permit Submittal

ISSUE DATE	**11/26/2025**
N&T JOB NUMBER	**22511.00**

REVISIONS

	DATE	DESCRIPTION
1	01/09/26	PLUMBING FIXTURE REPLACEMENT AND MODIFICATIONS
	02/18/2026	ISSUED FOR 3RD CORRECTION

DRAWN BY **EPCE** CHECKED BY **EP**

SHEET TITLE

6TH LEVEL RESTROOM PLANS-PLUMBING

SHEET NUMBER

P2.06

SPECIFICATIONS

SECTION 22 00 00 MECHANICAL GENERAL REQUIREMENTS

1. GENERAL: FURNISH ALL SERVICES, SKILLED AND COMMON LABOR, AND ALL APPARATUS AND MATERIALS REQUIRED FOR THE COMPLETE INSTALLATION OF HVAC, PLUMBING AND FIRE PROTECTION AS SHOWN AND WITHIN THE INTENT OF THE DRAWINGS AND/OR THESE SPECIFICATIONS.
2. QUALITY ASSURANCE:
   A. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING OF PRODUCTS SPECIFIED IN THIS SECTION, WITH DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS.
   B. INSTALLER: COMPANY SPECIALIZING IN EXECUTING THE SCOPE OF WORK SPECIFIED IN THIS SECTION, WITH DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS.
3. SUBMITTALS: SHOP DRAWINGS, OPERATION AND MAINTENANCE MANUAL, A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL. THE LIST SHALL INCLUDE FOR EACH ITEM: THE MANUFACTURER, THE MANUFACTURER'S CATALOG NUMBER, TYPE OR CLASS, THE RATING, CAPACITY, SIZE, ETC.
   SHOP DRAWING DATA SHALL INCLUDE THE FOLLOWING:
   A. MANUFACTURER'S MODEL AND CATALOG DATA.
   B. COMPLETE WIRING, DUCT AND PIPING CONNECTION DIAGRAMS FOR EACH TRADE.
   C. DIMENSIONS, CAPACITIES, RATINGS, MATERIALS AND FINISHES.
   D. DATA SHEET CLEARLY MARKED WITH STANDARD AND OPTIONAL FACTORY ITEMS BEING PROPOSED.
   E. EACH SHOP DRAWING IS REQUIRED TO BEAR THE REVIEW STAMP OF THE CONTRACTOR.
4. SUBSTITUTIONS: INSTALLATION OF ANY APPROVED SUBSTITUTED EQUIPMENT IS THE SUBCONTRACTOR'S RESPONSIBILITY, AND ANY CHANGES REQUIRED TO WORK INCLUDED UNDER OTHER DIVISIONS FOR INSTALLATIONS OF APPROVED SUBSTITUTED EQUIPMENT MUST BE MADE TO THE SATISFACTION OF THE OWNER AND WITHOUT CHANGE IN CONTRACT PRICE. APPROVAL BY THE OWNER OF SUBSTITUTED EQUIPMENT AND/OR DIMENSION DRAWINGS DOES NOT WAIVE THESE REQUIREMENTS.
5. INSTALLATION: INSTALL PRODUCTS AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, CONTRACT DRAWINGS AND REVIEWED SUBMITTALS.
   A. MATERIALS SHALL BE CAREFULLY HANDLED AND STORED UNDER COVER IN MANNER TO PREVENT DEFORMATION AND DAMAGE TO THE MATERIALS AND TO SHOP FINISHES, AND TO PREVENT RUSTING AND THE ACCUMULATION OF FOREIGN MATTER ON THE METAL WORK. WORK SHALL BE REPAIRED AND CLEANED PRIOR TO ERECTION.
   B. WORK SHALL BE ERECTED SQUARE, PLUMB AND TRUE AND ACCURATELY FITTED
   C. METAL WORK SHALL BE RIGIDLY BRACED AND SECURED TO SURROUNDING CONSTRUCTION, AND SHALL BE TIGHT AND FREE OF RATTLE, VIBRATION, OR NOTICEABLE DEFLECTION AFTER INSTALLED.
   D. WHERE DISSIMILAR METALS ARE TO COME INTO CONTACT WITH ONE ANOTHER, ISOLATE BY APPLICATION OF A HEAVY COATING OF BITUMINOUS PAINT ON CONTACT SURFACES IN ADDITION TO SHOP COAT SPECIFIED ABOVE. DO NOT PERMIT THE BITUMINOUS PAINT IN ANY WAY TO REMAIN ON SURFACES TO BE EXPOSED OR TO RECEIVE SEALANT.
   E. UNGALVANIZED FERROUS METALS UNDER THIS SECTION SHALL BE GIVEN A SHOP COAT OF RUST INHIBITIVE PRIMER OF TYPE SPECIFIED ABOVE.
6. GUARANTEE REQUIREMENTS
   A. GUARANTEE SHALL BE IN ACCORDANCE WITH DIVISION 1, AND THE REQUIREMENTS OF THE GENERAL CONDITIONS.
   B. MANUFACTURERS SHALL PROVIDE THEIR STANDARD GUARANTEES FOR WORK UNDER THIS CONTRACT, UNLESS SPECIFIED OTHERWISE. HOWEVER, SUCH GUARANTEES SHALL BE IN ADDITION TO AND NOT IN LIEU OF ALL OTHER LIABILITIES WHICH THE MANUFACTURER AND CONTRACTOR MAY HAVE BY LAW OR BY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS.
   C. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE SYSTEMS OR EQUIPMENT DURING THE GUARANTEE PERIOD, THE AFFECTED PART OR PARTS SHALL BE REPLACED BY THE RESPONSIBLE CONTRACTOR.
7. COORDINATION
   A. LOCATIONS OF PIPING, DUCTWORK, CONDUITS AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE THE NEW WORK WITH INTERFERENCE ANTICIPATED AND ENCOUNTERED DURING INSTALLATION. CONTRACTOR SHALL DETERMINE THE EXACT ROUTING AND LOCATION OF SYSTEMS PRIOR TO FABRICATION OR INSTALLATION OF ANY SYSTEM COMPONENT. ACCURATE MEASUREMENTS AND COORDINATION DRAWINGS WILL HAVE TO BE COMPLETED TO VERIFY DIMENSIONS AND CHARACTERISTICS OF THE VARIOUS SYSTEMS' INSTALLATIONS. PROVIDE A COMPREHENSIVE DUCT AND PIPING LAYOUT INDICATING SIZES, ROUTING AND POSITION OF PIPING, DUCT SYSTEM AND EQUIPMENT. PROVIDE DOCUMENTATION CONTAINS DETAILS FOR VERIFICATION OF PIPING AND DUCTWORK CONSTRUCTION, FITTINGS AND METHOD OF CONNECTIONS WITH SUPPORTS SPACING. PROVIDE COPIES FOR INSPECTIONS.
   B. LINES WHICH PITCH SHALL HAVE THE RIGHT-OF-WAY OVER THOSE WHICH DO NOT PITCH. FOR EXAMPLE, WASTE PIPING SHALL NORMALLY HAVE THE RIGHT-OF-WAY. LINES WHOSE ELEVATIONS CANNOT BE CHANGED SHALL HAVE THE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED.
   C. OFFSETS, TRANSITIONS AND CHANGES OF DIRECTION SHALL BE MADE AS REQUIRED TO MAINTAIN PROPER HEADROOM AND PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE MANUAL AIR VENTS, TRAP ASSEMBLIES AND DRAINS AS REQUIRED TO EFFECT THESE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION, AS APPLICABLE.
   D. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC ONLY INTENDING TO SHOW GENERAL RUNS AND LOCATIONS OF PIPING, DUCTWORK, EQUIPMENT, TERMINALS AND SPECIALTIES AND NOT NECESSARILY SHOWING EACH REQUIRED OFFSETS, DETAIL ACCESSORY OR EQUIPMENT TO BE CONNECTED. ACCURATELY LAYOUT WORK WITH WORK SPECIFIED IN OTHER SECTIONS TO AVOID CONFLICTS AND TO OBTAIN A NEAT AND WORKMANLIKE INSTALLATION WHICH WILL AFFORD MAXIMUM ACCESSIBILITY FOR OPERATION, MAINTENANCE AND HEADROOM.
   E. FINAL LOCATION OF AIR DISTRIBUTION DEVICES AND SPRINKLER HEADS SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND OTHER ARCHITECTURAL DETAILS, AS APPLICABLE. OFFSETS OF DUCTWORK, ADDED SHEET METAL, ELBOWS AND FLEXIBLE CONNECTIONS, SHALL BE PROVIDED AS REQUIRED TO COMPLY WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND INSTALLATION DETAILS. OBTAIN APPROVAL OF LOCATIONS OF ALL DEVICES FROM OWNER'S REPRESENTATIVE IN THE FIELD PRIOR TO INSTALLATION.
   F. WORK SHALL BE INSTALLED IN A WAY TO PERMIT REMOVAL (WITHOUT DAMAGE TO OTHER PARTS) OF COILS, FILTERS, CONTROL APPURTENANCES, FAN SHAFTS AND WHEELS, FILTERS, BELT GUARDS, SHEAVES AND DRIVES AND ALL OTHER SYSTEM COMPONENTS PROVIDED UNDER THIS CONTRACT REQUIRING PERIODIC REPLACEMENT OR MAINTENANCE. ALL PIPING SHALL BE ARRANGED IN A MANNER TO CLEAR THE OPENINGS OF SWINGING OVERHEAD ACCESS DOORS, CEILING TILES AND CLEANING ACCESS DOORS IN DUCTWORK.
   G. WORK SHALL INCLUDE COOPERATION WITH AND ASSISTANCE TO THE FACILITIES MONITORING AND CONTROL SYSTEM CONTRACTOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONAL HVAC CONTROL SYSTEM.
8. ELECTRICAL WORK AND BUILDING AUTOMATION SYSTEM CONTROL WIRING
   GENERAL
   A. PROVIDE POWER WIRING (480V/208V/120V) AS SPECIFIED IN DIVISION 16, TO ALL EQUIPMENT PROVIDED UNDER THE DIVISION 15 SECTIONS OF THE SPECIFICATIONS.
   B. CONTROL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE EQUIPMENT MANUFACTURER REQUIREMENTS.
   C. CONDUIT AND WIRING PROVIDED UNDER DIVISION 15 AND 17 SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 16.
   D. PROVIDE CONTROL AND INTERLOCK WIRING FOR ALL SYSTEMS PROVIDED UNDER DIVISIONS 15, 16 AND 17.
   E. FACTORY FURNISHED PACKAGED OR SKID MOUNTED EQUIPMENT SHALL BE EQUIPPED WITH INDIVIDUAL FUSED DISCONNECT SWITCHES FOR EACH MOTOR AND ELECTRIC LOAD. DISCONNECTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 16.
   F. ELECTRICAL EQUIPMENT AND COMPONENTS SHALL BE DESIGNED TO EXCEED THE MINIMUM SHORT CIRCUIT RATINGS INDICATED IN THE ELECTRICAL PLANS AND DIVISION 16 SPECIFICATIONS BY A MINIMUM OF 25%.
9. AS-BUILT DOCUMENTS
   A. CONTRACTOR SHALL INDICATE PROGRESS BY COLORING-IN VARIOUS PIPES, DUCTS AND ASSOCIATED APPURTENANCES EXACTLY AS THEY ARE ERECTED. THIS PROCESS SHALL INCORPORATE BOTH THE CHANGES AND OTHER DEVIATIONS FROM THE ORIGINAL DRAWINGS WHETHER RESULTING FROM JOB CONDITIONS ENCOUNTERED OR OTHER CAUSES.
   B. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT HIS MARKED-UP DRAWINGS TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND COMMENT.
10. MATERIALS :MATERIALS MANUFACTURERS SHALL BE AS SPECIFIED FOR EACH PRODUCT IN EACH SECTION. EQUAL PRODUCT SUBSTITUTIONS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST AND/OR ANY DELAY INCURRED IN REVIEW AND APPROVAL FOR ANY SUBSTITUTIONS.
    A. MATERIALS SHALL BE DELIVERED TO THE SITE AND STORED IN ORIGINAL SEALED CONTAINERS, SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLE FOR INSPECTION BY THE OWNER'S REPRESENTATIVE UNTIL INSTALLED. ITEMS SUBJECT TO MOISTURE DAMAGE SUCH AS CONTROLS AND FILTERS SHALL BE STORED IN DRY, HEATED SPACES.
    B. CONTRACTOR SHALL HAVE HIS MATERIAL TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER AND CHEMICAL OR MECHANICAL INJURY AND THEFT. AT THE COMPLETION OF THE WORK, EQUIPMENT AND MATERIALS SHALL BE CLEANED, POLISHED THOROUGHLY AND TURNED OVER THE OWNER IN A CONDITION SATISFACTORY TO THE OWNER'S REPRESENTATIVE. DAMAGE OR DEFECTS DEVELOPING BEFORE ACCEPTANCE OF THE WORK SHALL BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.
    C. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, FOR CONNECTIONS TO BE PROVIDED AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT TO ALLOW FOR THE FINAL INSTALLATION TO CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
    D. MANUFACTURERS' DIRECTIONS SHALL BE FOLLOWED COMPLETELY IN THE DELIVERY, STORAGE, PROTECTION AND INSTALLATION OF ANY EQUIPMENT. PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY CONFLICT BETWEEN ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S DIRECTIONS AND OBTAIN THE OWNER'S REPRESENTATIVE'S WRITTEN INSTRUCTIONS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BEAR ALL COSTS ARISING IN CORRECTING ANY DEFICIENCIES THAT SHOULD ARISE DUE TO WORK THAT DOES NOT COMPLY WITH THE MANUFACTURER'S DIRECTIONS OR WRITTEN INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE.
    E. WHERE MATERIAL OF THE ACCEPTABLE MANUFACTURERS REQUIRES DIFFERENT ARRANGEMENT OR CONNECTIONS FROM THOSE SHOWN, INSTALL THE EQUIPMENT TO OPERATE PROPERLY AND IN HARMONY WITH THE ORIGINAL INTENT OF THE DRAWINGS AND SPECIFICATIONS. AS APPROVED BY THE OWNER'S REPRESENTATIVE, SUBMIT DRAWINGS SHOWING THE PROPOSED INSTALLATION. IF THE PROPOSED INSTALLATION IS APPROVED, THE CONTRACTOR SHALL MAKE ALL NECESSARY CHANGES INCLUDING LOCATION OF ROUGH-IN CONNECTIONS, ELECTRICAL REQUIREMENTS, PIPING, SUPPORTS, INSULATION, ETC. CHANGES SHALL BE MADE AT NO INCREASE IN THE CONTRACT AMOUNT OR ADDITIONAL COST TO THE OWNER.
    F. EQUIPMENT OF ONE TYPE (AIR REGISTERS, SPRINKLER HEADS, ETC.), SHALL BE THE PRODUCT OF ONE MANUFACTURER.
11. USE OF PREMISES
    A. CONFINE TOOLS, EQUIPMENT, MATERIALS AND CONSTRUCTION TO THE LIMITS INDICATED ON THE DRAWINGS AND DIRECTED BY THE OWNER'S REPRESENTATIVE.
    B. THE RESPONSIBILITY FOR THE SAFE WORKING CONDITIONS AT THE SITE SHALL REMAIN WITH THE CONTRACTOR. THE OWNER AND OWNER'S REPRESENTATIVE SHALL NOT BE DEEMED TO HAVE ANY RESPONSIBILITY OR LIABILITY IN CONNECTION THEREWITH.
12. PARTS LIST AND INSTRUCTIONS FOR OPERATION AND MAINTENANCE
    A. THOROUGHLY INSTRUCT THE REPRESENTATIVE OF THE OWNER, TO THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE, IN THE PROPER OPERATION OF ALL SYSTEMS AND EQUIPMENT PROVIDED BY HIM. MAKE ARRANGEMENTS, VIA THE OWNER'S REPRESENTATIVE AS TO WHOM THE INSTRUCTIONS ARE TO BE GIVEN IN THE OPERATION OF THE BASIC AND AUXILIARY SYSTEMS AND THE PERIODS OF TIME IN WHICH THEY ARE TO BE GIVEN. THE OWNER'S REPRESENTATIVE SHALL BE COMPLETELY SATISFIED THAT THE REPRESENTATIVE OF THE OWNER HAS BEEN THOROUGHLY AND COMPLETELY INSTRUCTED IN THE PROPER OPERATION OF ALL SYSTEMS AND EQUIPMENT BEFORE FINAL PAYMENT IS MADE. IF THE OWNER'S REPRESENTATIVE DETERMINES THAT COMPLETE AND THOROUGH INSTRUCTIONS HAVE NOT BEEN GIVEN BY THE CONTRACTOR TO THE OWNER'S REPRESENTATIVE, THEN THE CONTRACTOR SHALL BE DIRECTED BY THE OWNER'S REPRESENTATIVE TO PROVIDE WHATEVER INSTRUCTIONS ARE NECESSARY UNTIL THE INTENT OF THIS PARAGRAPH OF THE SPECIFICATION HAS BEEN COMPLIED WITH.
    B. SUBMIT TO THE OWNER'S REPRESENTATIVE FOR REVIEW, A TOTAL OF (6) TYPED SETS, BOUND NEATLY IN LOOSE-LEAF BINDERS, OF MAINTENANCE AND OPERATING INSTRUCTIONS FOR THE INSTALLATION, OPERATION, CARE AND MAINTENANCE OF EQUIPMENT AND SYSTEMS. DATA AND LITERATURE FURNISHED SHALL BE SPECIFIC FOR THE MAKE AND MODEL OF THE EQUIPMENT FURNISHED. GENERAL NON-SPECIFIC CATALOG DATA WILL NOT BE ACCEPTABLE. INFORMATION SHALL INDICATE POSSIBLE PROBLEMS WITH EQUIPMENT AND SUGGESTED CORRECTIVE ACTION. THE MANUALS SHALL BE INDEXED FOR EACH TYPE OF EQUIPMENT. EACH SECTION SUCH AS FANS, VALVES, PLUMBING FIXTURES, HOT WATER HEATERS, BOILERS, AIR HANDLING UNITS, ETC., SHALL BE CLEARLY DIVIDED FROM THE OTHER SECTIONS. A SUB-INDEX FOR EACH SECTION SHALL ALSO BE PROVIDED. THE METHODOLOGY OF SETTING-UP THE MANUALS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO FINAL SUBMISSION OF MANUALS.
    C. THE INSTRUCTIONS SHALL CONTAIN INFORMATION DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE AND SHALL INCLUDE THE FOLLOWING:
       INSTRUCTIONAL CLASSES ON EQUIPMENT AND SYSTEMS OPERATION FOR OWNER'S REPRESENTATIVE AND MAINTENANCE PERSONNEL, BY ENGINEERING STAFF OF THE MECHANICAL CONTRACTOR. MINIMUM OF 48 HOURS OF INSTRUCTION FOR MINIMUM OF (6) PEOPLE. INSTRUCTION SHALL INCLUDE:
       a. EXPLANATION OF MANUAL AND ITS USE.
       b. SUMMARY DESCRIPTION OF THE HVAC, PLUMBING, FIRE PROTECTION, AND BUILDING AUTOMATION SYSTEMS.
    D. SYSTEM
       a. DETAILED DESCRIPTION OF EACH SYSTEM.
       b. ILLUSTRATIONS, SCHEMATICS, BLOCK DIAGRAMS, CATALOG CUTS AND OTHER EXHIBITS.
    E. OPERATIONS:COMPLETE DETAILED, STEP-BY-STEP, SEQUENTIAL DESCRIPTION OF EACH PHASE OF OPERATION FOR ALL PORTIONS OF THE SYSTEMS, INCLUDING START-UP, SHUTDOWN, ADJUSTING AND BALANCING. INCLUDE POSTED INSTRUCTION CHARTS.
    D. MAINTENANCE
       a. PARTS LIST AND PART NUMBERS.
       b. MAINTENANCE, LUBRICATION AND REPLACEMENT CHARTS AND MANUFACTURER'S RECOMMENDATIONS FOR PREVENTIVE MAINTENANCE, AS APPLICABLE TO HIS WORK.
       c. TROUBLESHOOTING CHARTS FOR SYSTEMS AND COMPONENTS.
       d. VALVE CHART.
       e. AIR AND WATER BALANCE REPORTS.
13. MANUFACTURER'S REPRESENTATIVE AND EQUIPMENT COMMISSIONING
    A. UPON COMPLETION AND ACCEPTANCE OF TESTING, ADJUSTING AND BALACING OF MECHANICAL SYSTEMS, ASSIST OWNER IN PREPARING PRIOR TO THE SCHEDULED START-UP DATE. THE PROGRAM WILL CONSIST OF THE DESIGN, START-UP, AND OPERATION OF THE MECHANICAL, PLUMBING, FIRE PROTECTION, AND BUILDING AUTOMATION SYSTEMS.
    B. PROVIDE, AT APPROPRIATE TIME OR AS APPROVED BY THE OWNER'S REPRESENTATIVE, THE ON-SITE SERVICES OF A COMPETENT FACTORY TRAINED ENGINEER OR AUTHORIZED REPRESENTATIVE OF PARTICULAR MANUFACTURER OF EQUIPMENT PROVIDED UNDER HIS CONTRACT, (SUCH AS FOR THE AIR HANDLING UNITS, FAN COILS, CONTROLS) TO INSTRUCT THE OWNER, INSPECT, ADJUST AND PLACE IN PROPER OPERATING CONDITION EACH ITEM PROVIDED BY HIM.
    C. COMMISSION AND SET IN OPERATING CONDITION ALL MAJOR EQUIPMENT AND SYSTEMS, IN THE PRESENCE OF THE APPLICABLE EQUIPMENT MANUFACTURER'S REPRESENTATIVES, THE OWNER AND OWNER'S REPRESENTATIVE. IN NO CASE WILL MAJOR SYSTEMS AND EQUIPMENT BE COMMISSIONED WITHOUT THE ASSISTANCE OR PRESENCE OF THE EQUIPMENT MANUFACTURERS.
    D. A WRITTEN REPORT SHALL BE ISSUED BY THE PARTICULAR EQUIPMENT MANUFACTURER AND THE CONTRACTOR SUMMARIZING THE RESULTS OF THE COMMISSIONING AND PERFORMANCE OF EACH SYSTEM FOR THE OWNER'S REPRESENTATIVE'S RECORD. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR SUCH SERVICES.
    E. PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FOR ACCEPTANCE, A SCHEDULE OF ANTICIPATED SYSTEM COMMISSIONING. NO SYSTEM SHALL BE COMMISSIONED WITHOUT PRIOR ACCEPTANCE OF THE SCHEDULE BY THE OWNER'S REPRESENTATIVE. NO SYSTEMS SHALL BE COMMISSIONED PRIOR TO SUBMITTAL AND ACCEPTANCE OF OPERATION AND MAINTENANCE MANUALS.

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE 2022.
2. HOT, COLD AND TEMPERED WATER: COPPER TUBE TYPE L, HARD DRAWN ASTM M-88 WITH WROUGHT COPPER FITTINGS WITH 95% TIN. 5% ANTIMONY SOLDER JOINTS. PIPING BELOW GRADE SHALL FACTORY POLYETHYLENE COATED COPPER TYPE K WITH BRAZED JOINTS AS MANUFACTURED BY 'AQUA-SHIELD' OR WITH 'PLUMBEST' 10 MIL PVC PIPE WRAP.. TYPE OF COATING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR EQUAL.
3. SHUTOFF VALVES: BALL VALVE 600 WOG, TWO-PIECE BRONZE BODY ASTM B-584 WITH TFE SEATS AND SEAL WITH BRONZE TRIM. BALL VALVE SHALL BE NIBCO OR EQUAL. PROVIDE ACCESS PANEL.
4. DIELECTRIC COUPLER: PROVIDE DIELECTRIC COUPLER BETWEEN DISSIMILAR PIPING MATERIAL. COUPLERS SHALL BE RED BRASS NIPPLE, WITH MINIMUM LENGTH OF 6 TIMES PIPE DIAMETER. COUPLER SHALL BE DIELECTRIC WATERWAY STYLE 4 OR EQUAL.
5. PIPE INSULATION: INSULATE BOTH HOT AND COLD WATER WITH 1" THICK FIBERGLASS FOR INDOOR INSTALLATION. PROVIDE 1" THICK FIBERGLASS INSULATION WITH ALUMINUM JACKET FOR OUTDOOR INSTALLATION. INSULATION SHALL BE OWENS CORNING SSLII WITH ASJ OR APPROVED EQUAL. PROVIDED CALCIUM SILICATE INSERTS AT SUPPORT POINTS. INSERTS SHALL BE CLEMENT INSULATED PIPE SUPPORT MODEL HW OR EQUAL.
6. SANITARY WASTE AND VENT PIPING:
   A. EQUIPMENT WASTE ABOVE GROUND – COPPER DWV. ASTM B-306 WITH DRAINAGE WYE FITTINGS WITH 95% TIN. 5% ANTIMONY SOLDER JOINTS. STAINLESS STEEL HEAVY WEIGHT HUB AND SPIGOT WITH HEAVY DUTY 'HUSKY 4000 SERIES' COUPLING IS ACCEPTABLE.
   B. BELOW GRADE – CAST IRON, HEAVY WEIGHT, BELL AND SPIGOT ENDS WITH SEALITE NO.110 CAULKING, NEOPRENE GASKET OR MECHANICAL JOINTS. SUPPORT FROM FLOOR SLAB AT 5 FEET INTERVAL MAXIMUM.
   C. RAIN WATER – GALVANIZED STEEL PIPE SCHEDULE 40, THREADED JOINTS.
7. PIPE SUPPORT: UNISTRUT, CLAMP AND ANCHORS. SUPPORT WATER PIPING AT 6 FEET ON CENTER; SUPPORT SANITARY SEWER AND VENTS AT 5 FEET ON CENTER.
8. PIPING IDENTIFICATION: LABEL PIPING TO ASME ANSI STANDARDS. LABELS SHALL BE DURAMARK OR EQUAL.
9. WALL CLEANOUT ACCESS PANEL: ZURN Z1441 WALL CLEANOUT, DURA-COATEDCAST IRON BODY, GAS AND WATERTIGHT TAPERED THREAD PLUG, AND ROUND, SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW OR EQUAL.
10. ACCESS DOORS
    A. ACCESS DOORS SHALL BE INSTALLED WHERE VALVES, SWITCHES, DAMPERS, CONTROLLERS OR OTHER SIMILAR EQUIPMENT ARE INSTALLED ABOVE GWB CEILINGS OR BEHIND WALLS OR ANYWHERE THEY BECOME INACCESSIBLE FOR INSPECTION, MAINTENANCE OR SERVICING. ACCESS DOORS SHALL BE 24" BY 24" IN GENERAL AND A MINIMUM OF 10" BY 18", EXCEPT PLUMBING VALVE ACCESS DOORS IN TILE AREAS, SHALL BE 8" X 8" OR 12" X 12" TO MATCH TILE MODULE UNLESS OTHERWISE INDICATED. ACCESS DOORS SHALL BE SIZED TO SUIT THE ACCESS REQUIREMENT TO SERVICE THE EQUIPMENT AND SHALL BE LOCATED INDIVIDUALLY AND IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE AND TO MEET REQUIREMENTS SPECIFIED HERE AND ELSEWHERE, FOR SPECIFIC APPLICATIONS.
    B. ACCESS DOORS SHALL BE SET SQUARE AND FLUSH. ACCESS PANELS SHALL BE LOCATED IN CLOSETS, STORAGE ROOMS AND/OR OTHER NON-PUBLIC AREAS AND SHALL BE CONSTRUCTED IN A WORKMANLIKE MANNER. DOORS SHALL BE POSITIONED SO THAT THE JUNCTION CAN BE EASILY REACHED. WHERE ACCESS PANELS ARE REQUIRED IN CORRIDORS, LOBBIES OR OTHER HABITABLE AREAS, THEY WILL BE LOCATED AS APPROVED BY THE OWNER'S REPRESENTATIVE WITH KEYED LOCKS.
    C. ACCESS DOORS SHALL BE CONSTRUCTED OF STEEL WITH PRIMER COAT OF RUST INHIBITIVE PAINT AND SHALL HAVE CONTINUOUS PIANO HINGE, AS MANUFACTURED BY INLAND STEEL PRODUCTS MILCOR, MIAMI, WALSH-HANNON OR EQUAL. DOOR LOCKS SHALL BE SCREWDRIVER OPERATED WITH STAINLESS STEEL CAM AND STUDS.
11. DISINFECTION PROCEDURE:
    A. DISINFECT ALL NEW DOMESTIC WATER PIPING WORK TO THE POINT OF CONNECTIONS TO EXISTING WATER DISTRIBUTION. PROVIDE ISOLATION VALVE AT THE POINT OF CONNECTION.
    B. POST SUITABLE WARNING SIGNS AT EACH OUTLET: 'WARNING – DO NOT USE – WATER SYSTEM BEING CHLORINATED'.
    C. INJECT DISINFECTANT SOLUTION INTO THE SYSTEM THROUGH THE SERVICE COCK BY MEANS OF A PUMP, OR OTHER PRESSURE DEVICE, AT A SLOW CONTINUOUS RATE, SIMULTANEOUS WITH A REDUCED FLOW FROM THE WATER MAIN, UNTIL THE ORTHOTOLIDIN TEST FOR RESIDUAL CHLORINE AT EACH OUTLET SHOWS A CONCENTRATION OF AT LEAST 50PPM, BUT NOT MORE THAN 100 PPM.
    D. CLOSE ALL OUTLETS AND VALVES, INCLUDING THE SERVICE VALVE AT THE MAIN AND THE INJECTION COCK. RETAIN THE CHLORINATED WATER IN THE SYSTEM FOR 24 HOURS.
    E. AFTER 24 HOUR HOLDING PERIOD, THE RESIDUAL CHLORINE CONCENTRATION SHALL BE NOT LESS THE 50 PPM AS SHOWN BY THE ORTHOTOLIDIN TEST.
    F. DRAIN AND FLUSH ENTIRE DOMESTIC WATER SYSTEM UNTIL ORTHOLIDIN TEST SHOW BACKGROUND RESIDUAL CHLORINE CONCENTRATION AT ANY OUTLET.
    G. ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) WILL DETERMINE WHETHER SAMPLES OF WATER MUST BE COLLECTED AND ANALYZED FOR THE DETERMINATION OF BACTERIOLOGICAL QUALITY.
    H. STANDARDS NECESSARY FOR APPROVAL:
       a. THE WATER SYSTEM SHALL BE UNIFORMLY CHLORINATED UNDER THE SUPERVISION OF ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) AS OUTLINED IN THE 'DISINFECTION PROCEDURE'.
       b. THE RESULT OF WATER SAMPLE ANALYSIS SHALL BE NEGATIVE FOR THE COLIFORM ORGANISM.
       c. IF THE TEST FOR THE BACTERIOLOGICAL QUALITY OF THE WATER IN THE SYSTEM DOES NOT MEET THE STANDARDS, REPEAT THE DISINFECTION PROCEDURE UNTIL THE SPECIFIED STANDARDS ARE MET.
    I. FINAL APPROVAL: ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) WILL GIVE WRITTEN APPROVAL TO THE OWNER FOR ACCEPTANCE AND USE OF THE WATER SYSTEM AFTER THE ABOVE PROCEDURES HAVE BEEN SUCCESSFULLY COMPLETED AND THE STANDARDS MET.

PLUMBING FIXTURES SPECIFICATIONS

1. WATER CLOSET: WC-1 ADA ACCESSIBLE
   KOHLER HIGHLINE NO. 4405 FLOOR-MOUNT, 17-1/8" HEIGHT, ELONGATED, WHITE, VITREOUS CHINA, TOP SPUD, 1.28 GPF WITH TOP SPUD SLOAN ROYAL 111 HET 1.28 MANUAL FLUSH VALVE. PROVIDE TOILET SEAT, WHITE COLOR. PROVIDE ACCESS TO FLUSH VALVE CONTROL ON THE WIDE SIDE FOR ACCESSIBLE (ADA) ACCESS.
2. LAVATORY: LAV-1 (ADA):
   ACCESSIBLE, 2 STATIONS HOT AND COLD WATER 'BADELOFT' WT-06-XXL STONE RESIN TWO STATION WALL MOUNTED SINK. 47.2" SIDE x 18.9" LONG x 5.5" DEEP WITH CHICAGO 420-E2805ABCP MANUAL AND METERING FAUCET WITH 0.5 GPM VANDAL PROOF NON-AERATING SPRAY, ADA COMPLIANT LAVATORY GRID DRAIN WITH 1-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 77723.018, CHROME FINISH MOUNT P-TRAP FLUSH TO WALL. INSULATE TAILPIECE AND P-TRAP.
3. LAVATORY: LAV-2:
   ACCESSIBLE, HOT AND COLD WATER 'BADELOFT' WT-04-D STONE RESIN SINGLE STATION WALL MOUNTED SINK. 31.3" SIDE x 19.6" LONG x 4.9" DEEP WITH CHICAGO 420-E2805ABCP MANUAL AND METERING FAUCET WITH 0.5 GPM VANDAL PROOF NON-AERATING SPRAY, ADA COMPLIANT LAVATORY GRID DRAIN WITH 1-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 77723.018, CHROME FINISH MOUNT P-TRAP FLUSH TO WALL. INSULATE TAILPIECE AND P-TRAP.
4. URINAL (ADA): UR-1
   KOHLER BARDON SUPERIOR NO. 4904-ET WALLHUNG, WHITE, 3/4" TOP SPUD, VITREOUS CHINA, WITH SLOAN ROYAL 186-0.5, 0.5 GPF (MANUAL) SIPHON JET FLUSH ACTION. FLUSH VALVE CHROME FINISHED, VANDAL RESISTANT STOP CAP, VACUUM BREAKER, ANGLE STOP WITH BACKFLOW PREVENTER. PROVIDE FIXTURE CARRIER OR WALL SUPPORT AS RECOMMENDED BY THE MANUFACTURER. CARRIER: "J.R. SMITH" 637 SERIES OR "ZURN" Z1222.
5. DRINKING FOUNTAIN: DF-1
   PROVIDE ELKAY MODEL MODEL LZS8L SINGLE DRINKING FOUNTAIN WALL MOUNTED, INDOOR INSTALLATION, COOLER FILTERED REFRIGERATED, 8.0 GPH 50°F BASED ON 80°F INLET WATER AT 90°F AMBIENT TEMPERATURE PER ASHRAE TESTING, 18-GAUGE 304 STAINLESS STEEL, LIGHT GRAY, 100% LEAD-FREE WATER WAYS, PUSH BUTTON OPERATED STAINLESS STEEL VALVES WITH FRONT ACCESSIBLE CARTRIDGE AND FLOW ADJUSTMENT, POLISHED CHROME-PLATED BRASS VANDAL RESISTANT BUBBLER HEADS WITH INTEGRAL LAMINAR STRAINERS, VANDAL-RESISTANT BOTTOM PLATES, STAINLESS STEEL, 1 1/4" O.D. WASTE PIPE. WITH STAINLESS STEEL BACK PANEL, MOUNTING PLATE, INTEGRATED P-TRAP, PROVIDE WATER STOPS. PROVIDE IN-WALL CARRIER.
6. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE LOCATION AND MOUNTING HEIGHT.
7. PLUMBING FIXTURE CARRIERS OR WALL SUP

DOCUMENT 00 2113

INSTRUCTIONS TO BIDDERS

Bids are requested by City of Berkeley ("City"), for a general construction contract, or work described in general, as set forth in Document 00 1113 (Notice Inviting Bids), and the following additional terms.

ARTICLE 1 - PROCEDURES FOR SUBMISSION OF BIDS

1.01 Required Pre-Bid Conference and Site Visit

A. City **WILL** conduct a **Non-Mandatory** Pre-Bid Conference and Site Visit at 1947 Center Street, at 11:00 AM, Wednesday, May 6, 2026. The location of work is open to the public during normal business or daylight hours. It is recommended that potential bidders visit the site independently to review site conditions prior to bid.

B. Questions regarding the site and the Bid Documents may be sent to the City's Representative to clarify such matters as Bidders may request. The Site Visit may be the Bidders' only opportunity to investigate conditions at the Site. Other Pre-Bid Site Visits may be scheduled at City's sole discretion, depending on staff availability.

C. City will issue Minutes of the Pre-Bid Conference, which shall constitute the sole and exclusive record and statement of the results of the Pre-Bid Conference. The Minutes issued by City are not Contract Documents.

1.02 Required Pre-Bid Investigations

A. Prior to submission of Bid, Bidder must conduct a careful examination of Bidding Documents and understand the nature, extent, and location of Work to be performed. Refer to Document 00 7200 (General Conditions) on required pre-bid investigations.

B. Bidders may examine any available existing conditions information (e.g., record documents, specifications, studies, drawings of previous work), as well as applicable environmental assessment information (if any) regarding the Project, which will be posted on the website location indicated in Document 00 1113 (Notice Inviting Bids), paragraph 1.03.

1.03 Bidder Questions and Answers

A. Bidders must direct all questions about the meaning or intent of Bidding Documents to City's Project Manager in writing as indicated in Document 00 1113 (Notice Inviting Bids), paragraph 1.03. Interpretations or clarifications considered necessary by City in response to such questions will be issued by written Addenda posted to the City's website.

B. Questions received less than ten (10) calendar days prior to the date for opening Bids may not be answered.

C. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect, and Bidders shall not rely on oral statements.

1.04 Addenda

A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by City. Addenda shall be acknowledged by number in Document 00 4113 (Bid Form) and shall be part of the Contract Documents. A complete listing of Addenda may be secured from City on the website as indicated in Document 00 1113 (Notice Inviting Bid), paragraph 1.03.

1. It is the Contractor's responsibility to check the City's website for Addenda prior to submitting their bid.

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 1100

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes Summary of Work and Work Restrictions including:

1. Work Covered By Contract Documents
2. Bid Item, Allowances and Alternates
3. Contract Document Organization
4. Maintenance
Work Under Other Contracts
Future Work
7. Work Sequence
8. Work Days and Hours
9. Shutdown for Discovery of Cultural Resources
Cooperation of Contractor and Coordination with Other Work
Partial Occupancy/Utilization Requirements
12. Contractor Use of Site
13. Air Quality Standards
Construction Staking, Monument Protection and Replacement
15. Geotechnical Data and Existing Conditions
16. Protection of Existing Structures and Underground Facilities
17. Permits
18. Actual Damages for Permit Violations
19. Reference Standards
Products Ordered in Advance
City-Furnished Products

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work comprises of the construction of City's **1947 Center St. Window Replacement Project** located at **1947 Center Street**. The Work includes, without limitation, **abatement and removal of steel windows, installation of new windows, repairs to concrete rough openings, and associated accessibility upgrades, including ancillary work in accordance with the terms and conditions of the Contract Documents**. Contract Documents fully describe the Work.

B. The Work of this Contract comprises construction of all the Work indicated, described in the Specifications, or otherwise required by the Contract Documents. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Acceptance of the Work. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in prices Bid and no direct or additional payment will be made therefore.

C. For all Bid items, furnish and install all Work, including connections to existing systems, indicated and described in Specifications and all other Contract Documents. Work and requirements applicable to each individual Bid item, or unit of Work, shall be deemed incorporated into the description of each Bid item (whether Lump Sum or Unit Price). Any Bid item may be deleted from the Work and Contract Sum, in total or in part, prior to or after award of Contract without compensation in any form or adjustment of other Bid items or prices therefore.

D. Allowance Work shall be done as Change Orders and as specified in Section 01 2600

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(Modification Procedures). Identify Allowance Items (See Document 00 4113 [Bid Form]) work on the Progress Schedules and on Applications for Payment. The Amount given on Document 00 4113 (Bid Form) under each Allowance Item is the sum of money set aside for each Allowance Item. These amounts shall be included in the Contract Sum on the Bid Form. If the cost of Work done under any Allowance Item is less than the amount given on the Bid Form under that Allowance Item, the Contract Sum shall be reduced by the difference between the amount given in the Bid Form and the cost of Work actually done.

1.03 BID ITEMS, ALLOWANCES AND ALTERNATES

A. Descriptions of Lump Sum Items (listed by Bid item numbers):

Bid Item 1: All Work for window abatement, removal, and replacement at the 6th Floor, in accordance with the Contract Documents

Bid Item 2: All Work for restrooms on the 6th Floor, in accordance with the Contract Documents

Bid Item 3: All Work for drinking fountains at the Basement, 1st Floor, 2nd Floor, 4th Floor, 5th Floor, and 6th Floor, in accordance with the Contract Documents

B. Descriptions of Unit Price Items and Basis of Measurement for Payment (listed by Bid item numbers):

N/A

C. Allowances: **N/A**

D. Bid Alternates: Bid Alternates are to be priced for City consideration. These items will not be used to determine lowest bid on bid opening day. However, one or more may be added to the project at the sole discretion of the City.

Bid Alternate A1: All Work for window abatement, removal, and replacement at the 5th Floor South Elevation, in accordance with the Contract Documents

Bid Alternate A2: All Work for window abatement, removal, and replacement at the 5th Floor East Elevation, in accordance with the Contract Documents

Bid Alternate A3: All Work for window abatement, removal, and replacement at the 5th Floor West Elevation, in accordance with the Contract Documents

Bid Alternate A4: All Work for window abatement, removal, and replacement at the 5th Floor North Elevation, in accordance with the Contract Documents

Bid Alternate A5: All Work for restrooms on the 5th Floor, in accordance with the Contract Documents

E. Deduct Alternates: **N/A**

1.04 CONTRACT DOCUMENT ORGANIZATION

A. The Drawings illustrate locations, arrangements, dimensions, and details to determine the general character of the Work. Parts not detailed shall be subject to the Architect's approval. Where reasonably inferable that a Drawing illustrates only part of a given work on a number of items, the remainder shall be deemed repetitious and so construed. Drawings of greater scale take precedence over Drawings of lesser scale. Do not scale documents.

B. Drawings indicate general arrangement and location of such items as piping, conduit, apparatus, and equipment. Drawings and Specifications are for guidance of the Contractor and exact locations, distances, and levels will be governed by building site and actual building conditions. The Contractor shall make minor changes, as directed, to arrangements or locations shown in order to meet Structural or Architectural conditions.

C. Specifications describe performances and qualities required of materials and of methods. Items listed under each Section of the Specifications are not necessarily all inclusive. The Contractor

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shall be responsible for the complete work.

D. For convenience, Specifications are separated into topical divisions of work, each of which is further related to topical divisions under which it occurs. Such separation shall not be construed as an attempt by the Architect to establish limits of any agreements between the Contractor and his/her subcontractors.

E. Portions of these Specifications are of abbreviated, simplified type and may include incomplete sentences.

1. Omissions of words or phrases such as “the Contractor shall”, “in conformity with”, “shall be”, “as noted on the Drawings”, “in accordance with the details”, “a”, “the”, “all”, “any”, and “each” are intentional. Omitted words or phrases shall be supplied by inference.
2. Terms such as “approved”, “or approved equal”, “as directed”, “as required”, “as provided”, “acceptable”, and “satisfactory” mean by or to the Architect or the City.
3. Furnish: The term furnish means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
4. Install: The term install describes operations at the Project Site, including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar ions.
5. Provide: The term provide means to furnish and install, complete and ready for the intended use.

F. Reference Standards

1. For products specified by association or trade standards, comply with requirements of the standard except where more rigid requirements are specified or are required by applicable codes.
2. The date of the standard is that in effect as of bid date except where specific date is specified

1.05 MAINTENANCE

A. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in prices bid and no direct or additional payment will be made therefor.

1.06 WORK UNDER OTHER CONTRACTS

A. None expected

1.07 FUTURE WORK

A. None expected

1.08 WORK SEQUENCE

A. Construct Work in stages and at times to accommodate City operation requirements during the construction period; coordinate construction schedule and operations with City.

1.09 WORK DAYS AND HOURS

A. Work Days and hours: Monday-Friday inclusive, **7:00 a.m.-5:00 p.m.** local time.

B. Work at the Site on weekends or holidays is not permitted, unless Contractor requests otherwise from City in writing at least 48 hours in advance and City approves in its sole discretion.

1.10 SHUTDOWN FOR DISCOVERY OF CULTURAL RESOURCES

A. If discovery is made of items of historical archaeological or paleontological interest, immediately cease all Work in the area of discovery. Archaeological indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, human bones, and fossils. After cessation of excavation, immediately contact City. Do not resume Work until authorization is received from City. When

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resumed, excavation or other activities shall be as directed by City.

1.11 COOPERATION OF CONTRACTOR AND COORDINATION WITH OTHER WORK

A. Coordinate with City and any City forces, or other contractors and forces, as required by Document 00 7200 (General Conditions).

B. Employ a full-time coordinator to constantly review Contract Documents, submittals, changes, and prepare overlay drawings as necessary to avoid conflicts, errors, omissions and untimely construction.

1.12 PARTIAL OCCUPANCY/UTILIZATION REQUIREMENTS

A. Allow City to take possession of and use any completed or partially completed portion of the Work during the progress of the Work as soon as is possible without interference to the Work.

B. Possession, use of Work, and placement and installation of equipment by City shall not in any way evidence the completion of the Work or any part of it.

C. Contractor shall not be held responsible for damage to the occupied part of the Work resulting from City occupancy.

D. Make available, in areas occupied, on a 24 hour per day and 7 day per week basis if required, any utility services, heating, and cooling in condition to be put in operation at the time of occupancy.

1. Responsibility for operation and maintenance of said equipment shall remain with Contractor.

2. Make, and City shall certify, an itemized list of each piece of equipment so operated with the date operation commences.

3. Itemized list noted above shall be basis for commencement of warranty period for equipment.

4. City shall pay for utility cost arising out of occupancy by City during construction.

E. Use and occupancy by City prior to acceptance of Work does not relieve Contractor of its responsibility to maintain insurance and bonds required under the Contract until entire Work is completed and accepted by City.

F. Prior to date of Final Acceptance of the Work by City, all necessary repairs or renewals in Work or part thereof so used, not due to ordinary wear and tear, but due to Defective materials or workmanship or to operations of Contractor, shall be made at expense of Contractor, as required in Document 00 7200 (General Conditions).

G. Use by City of Work or part thereof as contemplated by this Section 01 1100 shall in no case be construed as constituting acceptance of Work or any part thereof. Such use shall neither relieve Contractor of any responsibilities under Contract, nor act as waiver by City of any of the conditions thereof.

H. City may specify in the Contract Documents that portions of the Work, including electrical and mechanical systems or separate structures, shall be substantially completed on dates described in this Section 01 1100, if any, prior to Substantial Completion of all of the Work. Notify City in writing when Contractor considers any such part of the Work ready for its intended use and Substantially Complete and request City to issue a Certificate of Substantial Completion for that part of the Work.

1.13 CONTRACTOR USE OF SITE

A. Access is available to the Site from **Center St. T**he entrance to the building is protected with a lock outside of business hours. Contractor will be provided with access cards. Contractor should ensure that the entrance is locked at the end of each work day and at other times as may be necessary to control unauthorized entry.

B. **For work in City building]** Contractor shall contact City at least 2 Business Days prior to entering the building and performing Work to allow City to arrange access into the building.

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Access Request forms shall be submitted 48 hours in advance of anticipated on-site Work to gain permission to enter Site and to allow notification to occupants.

C. Confine operations at Site to areas permitted by Contract Documents, permits, ordinances, and laws. Do not unreasonably encumber Site with materials or equipment.

D. Assume full responsibility for protection and safekeeping of products stored on premises. Move any stored products that interfere with operations of City or other contractor.

E. Coordinate parking, storage, staging, and Work areas with City. City will review and approve the proposed storage area for Contractor's equipment and materials. Do not store construction materials in the dripline of any tree.

F. Prior to commencement of Work or excavation, Contractor and City shall jointly survey the area adjacent to the Project area making permanent note and record of such existing damage such as cracks, sags or other similar damage. This record shall serve as a basis for determination of subsequent damage to structures, conditions or other existing improvements due to Contractor's operations. All parties making the survey shall sign the official record of existing damage. Cracks, sags or damage of any nature to the adjacent Project area, not noted in the original survey but subsequently noted, shall be reported immediately to City.

G. The Contractor shall follow all city ordinances in force during the duration of this Contract.

H. It is essential that the Contractor perform the Work with as little interference and disturbance as possible to the surrounding neighborhood.

I. When suspect materials, outside the scope of Work, are encountered during the Work or restoration process, the Contractor shall immediately contact the Project Manager for evaluation and approval of the methods for dealing with the material.

1.14 AIR QUALITY STANDARDS

A. Ensure that idling time for all heavy equipment is minimized to reduce on-Site emissions.

B. Maintain equipment in good mechanical condition.

C. Cover trucks hauling dirt.

D. Limit dust emissions during periods of high winds (greater than 15 miles per hour).

E. Replace ground cover in disturbed areas as soon as possible.

F. Enclose, cover, water, or apply soil binders to exposed stockpiles.

G. Remove earth tracked onto neighboring paved roads at least once daily.

H. Limit equipment speed to 10 miles per hour in unpaved areas.

1.15 CONSTRUCTION STAKING, MONUMENT PROTECTION AND REPLACEMENT

A. Notify City at least three (3) Business Days prior to the need for initial staking. City will provide engineering surveys, City benchmarks, corner records, reference points, and/or monument cards that in City's judgment are necessary to establish site elevations for the Contractor to establish construction stakes in order to enable Contractor to proceed with the Work.

B. If Contractor finds any additional information is necessary, notify City in writing 2 Business Days in advance. City shall have no liability for any inadequacy unless Contractor notifies City and City fails to cure within 3 Business Days of such notice.

C. Contractor shall be responsible for laying out the Work and provide all construction staking. Contractor shall replace or repair construction stakes at own expense.

D. Contractor shall perform brush clearing and traffic control, as necessary, in City's sole judgment.

E. The Contractor shall protect and preserve all existing survey monuments, benchmarks, reference points, property monuments and stakes.

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F. Whenever Contractor knows or reasonably should know that any Work activity is likely to damage or destroy any survey monuments, benchmarks, reference points, property monuments, or construction stakes, or require relocation because of necessary changes in grades or locations, provide at least 3 Business Days advance notice to City. Survey monuments, benchmarks, reference points and property monuments shall not be disturbed until authorized by the City.

G. Whenever the Contractor disturbs or removes any survey monuments, benchmarks, reference points, or property monuments, the Contractor shall replace the monument in accordance with City Standard Plan 8090 or City Standard Plan 8091, as applicable. Standard Plans are available upon request. Monument casings (boxes and lids) shall be provided by the Contractor, and dome brass markers shall be supplied by the City.

H. In the event that any non-referenced monuments become in danger of being disturbed due to construction, the Contractor shall cease the threatening activity and notify the City immediately. Response to endangered monuments is a priority call, and each monument shall be referenced in accordance with the City of Berkeley Monument Reference Guidelines, available upon request. In no case may an unreferenced monument be damaged during construction.

I. Should any monument not designated for replacement sustain damage during construction, the Contractor shall bear the expense for rebuilding it as well as for the survey work the City survey crew or its survey consultant must perform in the process. In any instance where the City deems a damaged monument to be irreplaceable, the contractor shall be fined $20,000 per monument.

J. Monument replacement must be done in a neat, workman-like manner. Pavement cuts shall be accurate, with vertical cuts to exact dimensions as shown on the Standard Plans. Monument boxes and lids shall be placed at the proper finished grade and as detailed by Standard Plan 8090 or Standard Plan 8091. Existing monument lids shall be salvaged by the Contractor and delivered to the City.

K. Each replacement monument shall be constructed such that the center of the dome brass marker is set within 0.04 foot of the referenced position. The new dome brass marker shall not receive final punching prior to seven (7) calendar days after completion of the monument construction.

L. In any event, notify City whenever any survey monuments, benchmarks, reference points, or property monuments are lost or destroyed or require relocation because of necessary changes in grades or locations.

M. If the City has elected to reference known monuments around or within the project site, a copy of the corner records for the referenced monuments shall be provided to the Contractor prior to the start of construction. For each monument that has been disturbed or removed, the replacement monument location(s) will be established by the City's survey crew or its survey consultant after final pavement is completed and upon request by the Contractor.

N. All City of Berkeley Monuments located within the project area must be referenced, prior to work commencing, by a licensed land surveyor as required by Section 8771 of the Business and Professions Code. Corner Records of this work must be submitted for filing to both the County Surveyor of Alameda County, and the City of Berkeley, Public Works Department, Engineering Division, Survey Section.

O. Illegible survey requests or requests without proper notification (at least 3 Business Days in advance), may result in delayed response. No extension of Contract Time will be allowed due to such delays.

1.16 GEOTECHNICAL DATA AND EXISTING CONDITIONS

A. Available Documentation: In accordance with, and subject to, the provisions of Document 00 3132 (Geotechnical Data and Existing Conditions), the following documentation is available for review. This information is not part of the Contract Documents.

1. ASBESTOS AND LEAD SURVEY REPORT, ACUMEN INDUSTRIAL HYGIENE, APRIL 2025

1.17 PROTECTION OF EXISTING STRUCTURES AND UNDERGROUND FACILITIES

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A. The Drawings may indicate existing above- and below-grade structures, drainage lines, storm drains, sewers, water lines, gas lines, electrical lines, hot water lines, and other similar items and Underground Facilities that are known to City. At least (2) two Business Days, or as otherwise noted, prior to commencement of excavation, notify the owners of the following Underground Facilities:

1. **Water lines:** EBMUD
2. **Sewer lines**: Berkeley Public Works Department
3. **Telephone Conduit**: Telephone Provider
4. **Cable**: Cable Provider
5. **Electrical Lines**: PG&E

B. Where overhead service to a structure, known to receive service, does not exist, then underground service shall be assumed to exist.

C. Attention is also directed to the existence of overhead power and telephone lines.

D. Perform pot-holing by hand within 24 inches (in any direction) of the Underground Facilities. This may be done on an area-by-area basis, but shall be accomplished at least 7 calendar days in advance of the date of construction within such area.

E. Telemetry antennas: Ensure that the telemetry and voice communication antennas located on the roof remain operational. City's telemetry system is critical to the function and operation of Owner's water supply and distribution system. Coordinate relocation of equipment related to the telemetry and voice communication systems with Owner. Notify Owner 3 calendar days prior to conducting any Work in the vicinity of the telemetry antenna.

F. No attempt has been made to locate utilities on private property such as sprinkler irrigation systems or electrical conduits on the project site or adjacent property. Contractor is responsible for contacting all property owners as necessary, and locating and marking utilities in the vicinity of the work prior to construction.

G. In addition to reporting, if a utility is damaged, Contractor must take appropriate action as provided in Document 00 7200 (General Conditions).

H. Additional compensation or extension of time on account of utilities not indicated or otherwise brought to Contractor's attention including reasonable action taken to protect or repair damage shall be determined as provided in Document 00 7200 (General Conditions).

1.18 PERMITS

A. Permits, agreements, or written authorizations that are known by City to apply to this Project are listed below:

1. Storm Water Pollution Prevention
2. Cal/OSHA Permit. Obtain, as applicable, permit(s) as required by Cal/OSHA for the following:
   a. Construction of trenches or excavations that are five feet or more in depth and into which a person is required to descend.
   b. Construction or demolition of any building, structure, or scaffolding for falsework more than three stories high, or the equivalent height (36 feet).
   c. Erection or dismantling of vertical shoring systems more than three stories high, or the equivalent height (36 feet).
3. The local Cal/OSHA district office is located at:

   CAL/OSHA Headquarters
   1515 Clay Street, Suite 1303
   Oakland, CA 94612

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B. All other permits that may be required, such as electrical, mechanical, fire prevention, irrigation, grading, slope protection, tree cutting, temporary encroachment, etc., have not been applied for and shall be obtained by Contractor. Applicable permit fees will be reimbursed to the extent specified in Document 00 7200 (General Conditions).

1.19 ACTUAL DAMAGES FOR PERMIT VIOLATIONS

A. In addition to damages which are impracticable or extremely difficult to determine, for which liquidated damages will be assessed as described in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions), City may incur actual damages, including fines imposed by any regulatory agency, resulting from use in violation of legal or regulatory requirements where the violations result from Contractor's activities. Continuous operation in compliance with legal or regulatory requirements is essential to avoid discharges that would violate applicable regulations. Violations or threatened violations may subject City to fines or occurrence and/or other costs or civil liabilities.

B. Contractor shall be liable for and shall pay City the amount of any actual losses in addition to liquidated damages or other remedies provided by the Contract Documents.

C. The amount of liquidated damages provided in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions) is not intended to include, nor does the amount include, any damages incurred by City for reasons other than those listed in that paragraph. Any money due or to become due to Contractor may be retained by City to cover both the liquidated and the actual damages described above and, should such money not be sufficient to cover such damages, City shall have the right to recover the balance from Contractor or its sureties.

PART 2 - PRODUCTS

2.01 REFERENCE STANDARDS

A. For products specified by association or trade standards, comply with requirements of standard, except where more rigid requirements are specified or are required by applicable codes.

2.02 PRODUCTS ORDERED IN ADVANCE

A. As provided in Document 00 7200 (General Conditions) and Section 01 2000 (Measurement and Payment), and subject to all other provisions of the Contract Documents, City will pay for the following materials and equipment prior to incorporation into the Work:

1. **None**

2.03 CITY-FURNISHED PRODUCTS

A. City-Furnished Products:

1. **Drinking Fountains noted as Salvaged on Construction Drawings**

B. City's Responsibilities:

1. Arrange for and deliver City-reviewed Shop Drawings, Product Data, and Samples, to Contractor.
2. Arrange and pay for delivery to Site.
3. On delivery, inspect products jointly with Contractor.
4. Submit claims for transportation damage and replace damaged, Defective, or deficient items.
5. Arrange for manufacturers' warranties, inspections, and service.

C. Contractor's Responsibilities:

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1. Review City-reviewed Shop Drawings, Product Data, and Samples.
2. Receive and unload products at Site; inspect for completeness or damage jointly with City.
3. Handle, store, install, and finish products.
4. Repair or replace items damaged after receipt.
5. Install into Project per Contract Documents.

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2000

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes description of requirements and procedures for determining amount of Work performed and for obtaining payment for Work performed.

1.02 REFERENCES

A. California Public Contract Code

B. Code of Civil Procedures

C. Government Code

1.03 COMPOSITION AND SCOPE OF CONTRACT SUM

A. Scope of Contract Sum

1. The Contract Sum for performance of the Work under Contract Documents, or under any Bid item, allowance, or Alternate, shall include full compensation for all Work required under the Contract Documents, including without limitation, all labor, materials, taxes, transport, handling, storage, supervision, administration, and all other items necessary for the satisfactory completion of the Work, whether or not expressly specified or indicated, incidental work and unexpected expenses, and all terms, conditions, requirements and limitations set forth in the Contract Documents.
2. Contract Sum may be expressed as lump sum, unit price, GMP, allowance, or combination thereof.

B. Unit Price items

1. Quantity of Work to be paid for under any item for which a unit price is fixed in Contract Documents shall be determined by City based on, so far as practicable, actual number of units satisfactorily completed, as determined by City and certified by Contractor, within prescribed or ordered limits, and no payment will be made for Work unsatisfactorily performed or done outside of limits.
2. Unit Prices shall apply to Work covered by unit prices so long as actual quantities performed on the Project are not less than 75 percent or greater than 125 percent of the estimated quantities bid or otherwise stated in the Contract Documents. If actual quantities exceed these parameters, then the unit price shall be adjusted by an amount to reflect the Contractor's incremental cost differential resulting from increased or decreased economies of scale.

C. Lump Sum Items

1. When estimated quantity for specific portion of Work is not indicated and/or Work is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed in accordance with Contract Documents.
2. Payment for lump sum Work, or items of Work subject to a lump sum (e.g. without limitation, change order work), shall be made on the basis of satisfactory completion of such Work or work item, earned in progressive stages in accordance with the Contract Documents, up to but not exceeding the Contractor's percentage completion of the Work or item.
3. Lump sum items shall be paid based upon the approved Schedule of Values, which shall be

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used to measure progressive payments based upon satisfactory progress towards completion of the item.

D. Allowance Items

1. Allowances: Allowance Work will be authorized by City in writing, following change order procedures to determine cost, supporting documentation and authorization to proceed. Unused allowance amounts at Contract completion shall reduce the Contract price accordingly.

1.04 PAYMENT PROCEDURES

A. Schedule of Values:

1. Within ten calendar days from issuance of Notice of Award and prior to the Contractor's first Application for Payment, Contractor shall submit a detailed breakdown of its Bid by scheduled Work items and/or activities, including coordination responsibilities and Project Record Documents responsibilities. Where more than one Subcontractor comprises the work of a Work item or activity, the Schedule of Values shall show a separate line item for each subcontract. Contractor shall furnish such breakdown of the total Contract Sum by assigning dollar values (cost estimates) to each applicable Progress Schedule network activity, which cumulative sum equals the total Contract Sum. This breakdown shall be referred to as the Schedule of Values.

2. Contractor's overhead, profit, insurance, cost of bonds (except to the extent expressly identified in a Bid item) and/or other financing, as well as "general conditions costs," (e.g., Site cleanup and maintenance, temporary roads and access, off-Site access roads, temporary power and lighting, security, and the like), shall be prorated through all activities so that the sum of all the Schedule of Values line items equals Contractor's total Contract Sum, less any allowances designated by City. Scheduling, record documents and quality assurance control shall be separate line items.

3. City will review the breakdown in conjunction with the Progress Schedule to ensure that the dollar amounts of this Schedule of Values are, in fact, reasonable cost allocations for the Work items listed. Upon favorable review by City, City will accept this Schedule of Values for use. City shall be the sole judge of fair market cost allocations.

4. City will reject any attempt to increase the cost of early activities, i.e., "front loading," resulting in a complete reallocation of moneys until such "front loading" is corrected. Repeated attempts at "front loading" may result in suspension or termination of the Work for default, or refusal to process progress payments until such time as the Schedule of Values is acceptable to City.

B. Contractor's Requests for Progress Payments

1. If requested by Contractor, progress payments will be made monthly, under the following conditions:

2. On or before the 25th Day of each month, Contractor shall submit to City five copies of an Application for Payment for the cost of the Work put in place during the period from the last Day of the previous month to the end of the current month, along with one copy of an updated Progress Schedule. Such Applications for Payment shall be for the expected total value of activities completed or partially completed, based upon Schedule of Values prices (or Bid item prices if unit price) of all labor and materials incorporated in the Work up until midnight of the last Day of that one month period, less the aggregate of previous payments. Accumulated retainage shall be shown as separate item in payment summary. City and Contractor will reconcile any differences in the field, based on the reconciled monthly report sheets. If Contractor is late submitting its Application for Payment, that Application may be processed at any time during the succeeding one-month period, resulting in processing of Contractor's Application for Payment being delayed for more than a Day for Day basis.

3. Except as otherwise provided in a labor compliance program applicable to the Work (if any) or as otherwise required by City, concurrently with each Application for Payment, Contractor shall submit to the City the Contractor's and its Subcontractors' certified payroll records required to be maintained pursuant to Labor Code Section 1776 for all labor performed during pay periods

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ending during the period covered by the Application for Payment.

4. No progress payment will be processed prior to City receiving all requested, acceptable schedule update information and certified payrolls, and in City's sole and absolute discretion, City may deny the entire Application for Payment for noncompliance.

5. Each Application for Payment shall list each Change Order and Construction Change Directive ("CCD") executed prior to date of submission, including the Change Order/CCD Number, and a description of the Work activities, consistent with the descriptions of original Work activities. Contractor shall submit a monthly Change Order/CCD status log to City.

6. If City requires substantiating data, Contractor shall submit information requested by City, with cover letter identifying Project, Application for Payment number and date, and detailed list of enclosures. Contractor shall submit one copy of substantiating data and cover letter for each copy of Application for Payment submitted.

7. If Contractor fails or refuses to participate in monthly Work reconciliations or other construction progress evaluation with City, Contractor shall not receive current payment until Contractor has participated fully in providing construction progress information and schedule update information to City.

C. City's Review of Progress Payment Applications

1. City will review Contractor's Application for Payment following receipt and during the Progress Schedule and Billing Meeting. If adjustments need to be made to percent of completion of each activity, City will make appropriate notations and return to Contractor. Contractor shall revise and resubmit. All parties shall update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.

2. If City determines that portions of the Application for Payment are not proper or not due under the Contract Documents, then City may approve the other portions of the Application for Payment, and in the case of disputed items or Defective Work not remedied, may withhold up to 150 percent of the disputed amount from the progress payment.

3. Pursuant to California Public Contract Code §20104.50, if City fails to make any progress payment within 30 calendar days after receipt of an undisputed and properly submitted Application for Payment from Contractor, City shall pay interest to the Contractor equivalent to the legal rates set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The 30-Day period shall be reduced by the number of calendar days by which City exceeds the seven-Day return requirement set forth herein.

4. As soon as practicable after approval of each Application for Payment for progress payments, City will pay to Contractor in manner provided by law, an amount equal to 95 percent of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents and by law, provided that payments may at any time be withheld if, in judgment of City, Work is not proceeding in accordance with Contract, or Contractor is not complying with requirements of Contract, or to comply with stop notices or to offset liquidated damages accruing or expected. In City's sole discretion, if Contractor has failed to comply with either its Progress Schedule update or project record documents requirements, City may retain an additional 5% of any earned amounts until such requirements are satisfied.

5. Before any progress payment or final payment is due or made, Contractor shall submit satisfactory evidence that Contractor is not delinquent in payments to employees, Subcontractors, suppliers, or creditors for labor and materials incorporated into Work. This specifically includes, without limitation, conditional lien release forms for the current progress payment and unconditional release forms for past progress payments. This also includes copies of certified payroll from contractor and subcontractors for the current payment period.

D. Payment for Material and Equipment Not Yet Incorporated Into the Work

1. No payment shall be made for materials or equipment not yet incorporated into the Work,

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except as specified elsewhere in the Contract Documents or as may be agreed to by City in its sole discretion. Where Contractor requests payment on the basis of materials and equipment not incorporated in the Work, Contractor must satisfy the following conditions:

2. The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing, for example, a mutually acceptable bonded and insured warehouse.

3. Full title to the materials and/or equipment shall vest in City at the time of delivery to the Site, warehouse or other storage location. Obtain a negotiable warehouse receipt, endorsed over to City for materials and/or equipment stored in an off-site warehouse. No payment will be made until such endorsed receipts are delivered to City.

4. Stockpiled materials and/or equipment shall be available for City inspection, but City shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to identify these specific Contract Documents.

5. After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense.

6. At Contractor's expense, insure the materials and/or equipment against theft, fire, flood, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents.

7. Contractor's Application for Payment shall be accompanied by a bill of sale, invoice or other documentation warranting that City has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect City interest therein, all of which must be satisfactory to City. This documentation shall include, but not be limited to, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the Application for Payment relates, as well as unconditional releases of the same from the same as to the previous Application for Payment for which they have not already been provided. Amounts previously paid for materials and equipment prior to incorporation into the Work shall be deducted from amounts otherwise due Contractor as they are incorporated.

1.05 FINAL PAYMENT

A. Final Payment

1. As soon as practicable after all required Work is completed in accordance with Contract Documents, including punchlist, testing, record documents and Contractor maintenance after Final Acceptance, Contractor shall submit its Application for Final Payment.

2. Provided Contractor has met all conditions required for Final payment, City will pay to Contractor, in manner provided by law, unpaid balance of Contract Sum of Work (including, without limitation, retentions), or whole Contract Sum of Work if no progress payment has been made, determined in accordance with terms of Contract Documents, less sums as may be lawfully retained under any provisions of Contract Documents or by law.

B. Final Accounting

1. Prior progress payments and change orders shall be subject to audit and correction in the final payment.

2. Contractor and each assignee under an assignment in effect at time of final payment shall execute and deliver at time of final payment, and as a condition precedent to final payment, Document 00 6530 (Agreement and Release of Claims).

1.06 SUBSTITUTION OF SECURITIES

A. **Public Contract Code Section 22300**. In accordance with the provisions of Public Contract

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Code Section 22300, substitution of securities for any moneys withheld under Contract Documents to ensure performance is permitted under following conditions:

1. At request and expense of Contractor, securities listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and City which are equivalent to the amount withheld under retention provisions of Contract shall be deposited with Controller or with a state or federally chartered bank in California, as the escrow agent, who shall then pay such moneys to Contractor. Upon satisfactory completion of Contract, securities shall be returned to Contractor.
2. Alternatively, Contractor may request and City shall make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities and receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor. Upon satisfactory completion of the work of the Contract Documents, Contractor shall receive from escrow agent all securities, interest, and payments received by the escrow agent from City. Contractor shall then pay to each Subcontractor, not later than 10 calendar days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to insure the performance of Contractor.
3. Contractor shall be beneficial owner of securities substituted for moneys withheld and shall receive any interest thereon.
4. Contractor may enter into an escrow agreement, form included in Contract Documents, as authorized under Public Contract Code Section 22300, specifying amount of securities to be deposited, terms and conditions of conversion to cash in case of default of Contractor, and termination of escrow upon completion of Contract Documents.
5. Public Contract Code Section 22300, in effect on Bid Day, is hereby incorporated in full by this reference and shall supersede anything inconsistent therewith.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2600

MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes requirements that supplement the paragraphs of Document 00 7200 (General Conditions).

B. Description of procedures for modifying the Contract Documents and determining costs for changes in contract amounts.

1.02 PROCEDURES FOR CONTRACTOR INITIATED CHANGE ORDER

A. Contractor-Initiated Change Proposal Request (CPR) and Procedures:

1. Contractor may initiate changes by submitting a Change Proposal Request ("CPR").

2. Whenever Contractor elects or is entitled to submit a CPR, Contractor shall prepare and submit to City for consideration a CPR using the form included in this Project Manual. All CPRs must contain a complete breakdown of costs of credits, deducts and extras; itemizing materials, labor, taxes, Markup and any requested changes to Contract Time. All Subcontractor Work shall be so indicated. Individual entries on the CPR form shall include applicable Schedule of Values code, with all amounts determined as provided herein. After receipt of a CPR with a detailed breakdown, City will act promptly thereon.

3. If City accepts a CPR, City will prepare a Change Order for City and Contractor signatures.

4. If CPR is not acceptable to City because it does not agree with Contractor's proposed cost and/or time, City will provide comments thereto. Contractor will then, within seven (7) calendar days (except as otherwise provided herein), submit a revised CPR.

5. When necessity to proceed with a change does not allow City sufficient time to conduct a proper check of a CPR (or revised CPR), City may issue a Change Directive (CD) as provided below.

B. Contractor-Initiated Request for Information (RFI) Procedures, Requirements and Limitations:

1. Contractor may submit RFI's for clarifications in City-prepared Contract Documents, which may result in the Contractor submitting a CPR.

2. Whenever Contractor requires information regarding the Project or City-prepared Contract Documents, or receives a request for such information from a Subcontractor, Contractor may prepare and deliver an RFI to City. Contractor shall use RFI format provided on approval by City. Contractor shall not issue an RFI to City solely to clarify Contractor-prepared Construction Documents. Contractor must submit time critical RFIs at least 30 calendar days before scheduled start date of the affected Work activity. Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.

3. Contractor shall be responsible for its costs to implement and administer RFIs throughout the Contract duration. Regardless of the number of RFIs submitted, Contractor shall not be entitled to additional compensation for the effort required to submit the RFIs. Contractor shall be

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responsible for City's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by City; at City discretion, such costs may be deducted from progress payments or final payment.

4. City will respond within ten (10) calendar days from receipt of RFI with a written response to Contractor. Contractor shall distribute response to all appropriate Subcontractors.

5. If Contractor is satisfied with the response and does not request a change in Contract Sum or Contract Time, then the response shall be executed without a change.

6. If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the letter "A" indicating it is a follow-up RFI) to City clarifying original RFI. Additionally, City may return RFI requesting additional information should original RFI be inadequate in describing condition.

C. Time Requirements:

1. If Contractor believes that a City response to an RFI, submittal or other City direction, results in change in Contract Sum or Contract Time, Contractor shall notify City with the issuance of a preliminary CPR within ten calendar days after receiving City's response or direction, and in no event after starting the disputed work or later than the time allowed under Article 12 of Document 00 7200 (General Conditions). If Contractor also requests a time extension, or has issued a notice of delay or otherwise requests a time extension with a CPR, then Contractor shall submit a Time Impact Evaluation (TIE) required herein concurrently with the CPR and in no event later than ten calendar days after providing the notice of delay.

2. If Contractor requires more time to accurately identify the required changes to the Contract Sum or Contract Time, Contractor may submit an updated and final CPR and TIE within 14 calendar days of submitting the preliminary CPR.

3. If City agrees with Contractor's CPR and/or TIE, then City will prepare a Change Order for City and Contractor signatures. If City disagrees with Contractor, then Contractor may give notice of potential claim as provided in Article 12 of Document 00 7200 (General Conditions), and proceed thereunder.

4. Contractor must submit CPRs, notices of potential claim or Claims within the required time periods. Any failure to do so waives Contractor's right to submit a CPR or file a Claim.

D. Cost Estimate Information:

1. Contractor and subcontractors shall, upon City's request, permit inspection of the original unaltered cost estimates, subcontract agreements, purchase orders relating to the change, and documents substantiating all costs associated with its CPR or Claims arising from changes in the Work.

1.03 PROCEDURES FOR CITY INITIATED CHANGE ORDERS

A. City Initiated Change Directives (CD):

1. City may, by Change Directive ("CD") or initially by Instruction Bulletin or by following the procedures for disputed work herein, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, with or without adjustment to Contract Sum or Contract Time.

2. If at any time City believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, or at any other time, City may issue a CD with its recommended cost and/or time adjustment (if any). Upon receipt of CD, Contractor shall promptly proceed with the change of Work involved and respond to City within ten (10) calendar days.

3. Contractor's response must be any one of following:

a. Return CD signed, thereby accepting City response, including adjustment to time and cost (if any).

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b. Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by letter A, B, etc. for each revision), if City so requests.
c. Give notice of intent to submit a claim as described in Article 12 of Document 00 7200 (General Conditions), and submit its claim as provided therein.

4. If CPR or the CD provides for an adjustment to any Contract Sum, the adjustment shall be based on one of the following methods:

a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
b. Contractor to proceed on cost reimbursable (force account) basis while negotiating towards a firm price.
c. Cost to be determined in a manner agreed.

5. Change Directive signed by Contractor indicates the agreement of Contractor therewith, including adjustment in Contract Sum or the method for determining them. Such agreement shall be effective immediately and shall be finalized as a Change Order. Where City authorizes CD work on a time and materials basis up to a maximum amount, then Contractor shall promptly advise City upon reaching 75% of such maximum amount, otherwise Contractor shall accept fully the risk of completing the CD work without exceeding such maximum amount.

6. If Contractor does not respond promptly or disagrees with the method for adjustment (or non-adjustment) in the Contract Sum, the method and the adjustment shall be determined by City on the basis of the Contract Documents and the reasonable expenditures and savings of those performing the Work attributable to the change. If the parties still do not agree on the proper adjustment due to a Change Directive, Contractor may file a Claim per Article 12 of Document 00 7200 (General Conditions) and/or City may direct the changed work through a unilateral change order. Contractor shall keep and present an itemized accounting in a manner consistent with the SOV, together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided herein.

7. Pending final determination of cost to City, Contractor may include amounts not in dispute in its Applications for Payment. The amount of credit to be allowed by Contractor to City for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by City. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for Markup shall be figured on the basis of net increase, if any, with respect to that change.

B. City Initiated Change Order (CO) or Request for Proposal (RFP):

1. City may initiate changes in the Work or Contract Time by issuing a Request for Proposal ("RFP") or Change Order ("CO") to Contractor.

2. City may issue an RFP to Contractor. Any RFP will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.

3. In response to an RFP, Contractor shall furnish a Change Proposal Request (CPR) within twenty-one (21) Business Days of City's RFP. Upon approval of CPR, City may issue a Change Directive directing Contractor to proceed with extra Work.

4. If the parties agree on price and time for the work, the City will issue a Contact Change Order. If the parties do not agree on the price or time for a CPR, City may either issue a CD or decide the issue per Article 12 of Document 00 7200 (General Conditions). Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.

1.04 PROCEDURES THAT APPLY TO CONTRACTOR- AND CITY-INITIATED CHANGE ORDERS

A. Adjustment of Schedules to Reflect Change Orders or CDs:

1. Contractor shall revise Schedule of Values and Application for Payment forms to record each

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authorized Change Order or CD as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.

2. Contractor shall revise the Progress Schedules prior to the next monthly pay period, to reflect CO or CD.

3. Contractor shall enter changes in Project Record Documents prior to the next monthly pay period.

B. Required Documentation for Adjustments to Contract Amounts:

1. For all changes and cost adjustments requested, Contractor shall provide documentation of change in Contract Amounts asserted, with sufficient data to allow evaluation of the proposal.

2. In all requests for compensation, cost proposals, estimates, claims and any other calculation of costs made under the Contract Documents, Contractor shall breakout and quantify costs of labor, equipment and materials identified herein, for Contractor and subcontractors of any tier.

3. Contractor shall, on request, provide additional data to support computations for:

   a. Quantities of products, materials, labor and equipment.
   b. Taxes, insurance, and bonds.
   c. Justification for any change in Contract Time and new Progress Schedule showing revision due, if any.
   d. Credit for deletions from Contract, similarly documented.

4. Contractor shall support each claim or computation for additional cost, with additional information including:

   a. Origin and date of claim or request for additional compensation.
   b. Dates and times Work was performed and by whom.
   c. Time records and wage rates paid.
   d. Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.
   e. Credit for deletions from Contract, similarly documented.

C. Responses and Disputes:

1. For all responses for which the Contract Documents do not provide a specific time period, recipients shall respond within a reasonable time.

2. For all disputes arising from the procedures herein, Contractor shall follow Article 12 of Document 00 7200 (General Conditions).

1.05 COST DETERMINATION FOR CHANGES IN CONTRACT AMOUNTS

A. Calculation of Total Cost of Extra Work:

1. Total cost of changed Work, extra Work or of Work omitted shall be the sum of three components defined immediately below as: Component 1 (Direct Cost(s)); Component 2 (Markup); and, Component 3 (bonds, insurance, taxes)

2. Component 1: Direct Cost(s) of labor, equipment and materials, is calculated based upon actually incurred (or omitted) labor costs, material costs and equipment rental costs, as defined herein;

3. Component 2: Markup on such actually incurred Direct Costs, is applied in the percentages identified below; and

4. Component 3: Actual additional costs for any additionally required insurance, bonds, and/or taxes, defined herein, is calculated without Markup.

1.06 MEASUREMENT OF DIRECT COST OF CONSTRUCTION (COST COMPONENT NO. 1)

A. Composition of Component 1 (Direct Cost of Construction):

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1. Component 1 has four subcomponents, also referred to as “LEMS”:

   a. Labor (Component 1A)
   b. Equipment (Component 1B)
   c. Materials (Component 1C)
   d. Subcontractors (Component 1D)

B. Measurement of Cost of Labor (Component 1A):

1. Cost of Labor shall be calculated as: Cost of labor for workers (including forepersons when authorized by City) used in actual and direct performance of the subject work, whether employer is Contractor, Subcontractor or other forces, in the sum of the following:

   a. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
   b. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined, such as worker’s compensation insurance. Such labor surcharge shall not exceed generally accepted standards in the State for labor rates in effect on date upon which extra Work is accomplished.
   c. Cost of labor shall include no other costs, fees or charges.

2. Labor cost for operators of equipment owned and operated by Contractor or any Subcontractor, shall be no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator (i.e., Contractor or Subcontractor) is actually covered by such an agreement.

3. Cost of labor shall be recorded and documented in certified payroll records, maintained in the form customary and/or required in the State, delivered to City weekly.

C. Measurement of Cost of Equipment (Component 1B):

1. Measurement of Component 1B (Cost of Equipment). Cost of Equipment shall be calculated as: Cost of Equipment used in actual and direct performance of the subject work, whether by Contractor, Subcontractor or other forces. Cost of Equipment shall be calculated as herein described.

2. For rented equipment, cost will be based on actual rental invoices, appropriate for the use and duration of the work. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by City.

3. Equipment rental cost for Contractor or Subcontractor-owned equipment, shall be determined by reference to, and not in excess of, the generally accepted standards in the State for equipment rental rates in effect on date upon which extra Work is accomplished. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the CalTrans Standard Schedules and Specifications, and absent a rental rate therein, then the Association of Equipment Distributors (AED) book.

4. In all cases, rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

5. Unless otherwise specified, manufacturer’s ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of $100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore as payment is included in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.

6. For equipment on Site, rental time to be paid for equipment shall be time equipment is in

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operation on extra Work being performed or on standby as approved by City. The following shall be used in computing rental time of equipment:

a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
c. Rates shall correspond to actual rates paid by Contractor, i.e., if Contractor pays lower weekly or monthly rates, then same shall be charged to City.

7. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:

a. City will pay for costs of loading and unloading equipment.
b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission or appropriate State Dept. of Transportation.
d. City will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
e. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which City directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and City legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight less number of hours equipment is inoperative due to breakdowns.

8. Employee vehicles are not part of Component 1A, rather, are included within Component 2 (Markup).

9. Equipment costs shall include no other costs, fees or charges.

D. Measurement of Cost of Material (Component 1C):

1. Cost of Material shall be calculated as herein described. Cost of such materials will be cost to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:

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

3. For materials salvaged upon completion of Work, salvage value of materials shall be deducted from cost, less discounts, of materials.

4. If cost of a material is, in opinion of City, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in this Paragraph.

5. Material costs shall include no other costs, fees or charges.

E. Measurement of Cost of Subcontractors (Component 1D):

1. Where reimbursed or calculated per the terms of the Contract Documents, change order or Change Directive, cost of Subcontractors shall be calculated as amounts earned by Subcontractors procured in compliance with the Contract Documents and approved by the City, provided such subcontractor earned amounts meet the following requirements:

a. Such amounts are earned under the terms of the Subcontracts and the Work complies with the terms of the Contract Documents;

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b. Such amounts are properly requested, documented and permitted under the terms of the subcontract(s) and the Contract Documents.
c. Total cost to City of Direct Costs of Construction (labor, equipment, materials), Markup, and costs of bonds, insurance and taxes, conform to contract limitations (i.e., totals paid by City do not exceed the 20% Markup limitation.).

1.07 MEASUREMENT AND PAYMENT OF MARK UP (COST COMPONENT 2)

A. Markup Percentages for Changed Work (Component 2):

1. Markup on Direct Cost of labor and materials for extra Work shall be 15%. Markup on Direct Cost of equipment for extra Work shall be 15%.

2. When extra Work is performed by Subcontractors, regardless of the number of tiers, total Markup on “Component 1” Direct Costs shall not exceed 20%. Contractor and its Subcontractors shall divide the 20% as they may agree.

3. Under no circumstances shall the total Markup on any extra Work exceed twenty (20) percent, stated as a percent of the Direct Cost of labor, equipment and materials. This limitation shall apply regardless of the actual number of subcontract tiers.

4. On proposals covering both increases and decreases in Contract Sum, Markup shall be allowed on the net increase only as determined above. When the net difference is a deletion, no percentage for Markup shall be allowed, but rather an appropriate percentage deduction shall be issued in the amount of the net difference.

B. Measurement and Payment of Mark Up (Component 2):

1. Mark Up (Component 2) provides complete compensation to Contractor for:

a. All Contractor profit;
b. All Contractor home-office overhead;
c. All Contractor assumption of risk assigned to Contractor under the Contract Documents;
d. Subject to the qualifications below regarding self-performed work, all General Conditions and General Requirements.

2. Profit. Compensation for profit included within Component 2 (Mark Up), includes without limitation: Fees of all types, nature and description; and Profit and margins of all types, nature and description.

3. Home Office Expenses. Compensation for home office expenses included within Component 2 (Mark Up), includes without limitation: Salaries and other compensation of any type of Contractor’s personnel (management, administrative and clerical), and all direct and indirect operating, travel, payroll, safety, storage, quality control, maintenance and overhead costs of any nature whatsoever, incurred by Contractor at any location other than the Project specific site office, including without limitation, Contractor’s principal or branch offices; insurance premiums other than those for Project specific insurance directed by the City in a change order; all hardware, software, supplies and support personnel necessary or convenient for Contractor’s capture, documentation and maintenance of its costs and cost accounting data and cost accounting and control systems and work progress reporting.

4. Assumption of Risk. Compensation for Contractor’s assumption of risk under the Contract Documents, included within Component 2 (Mark Up), includes without limitation loss, cost, damage, expense or liability resulting directly or indirectly from any of the following causes (“unallowable costs”), for Contractor and subcontractors of any tier: noncompliance with the Contract Documents, fault or negligence, defective or non-conforming Work, by Contractor or any Subcontractor or Vendor of any tier or anyone directly or indirectly employed by any of them, or for whose acts or omissions any of them are responsible or liable at law or under the Contract Documents; cost overruns of any type; costs in excess of any lump sum, not to exceed amount or GMP; costs resulting from bid or “buy out” errors, unallocated scope, or incomplete transfer of scope or contract terms to subcontractors; any costs incurred by Contractor relating to a Change in the Work without a Change Order or Change Directive in accordance with the

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Contract Documents; costs for work or materials for which no price is fixed in the Contract Documents, unless it is expressly specified that such work or material is to be paid for as extra work.

5. General Conditions and Division 1 General Requirements. Compensation for Contractor's General Conditions and General Requirements Costs included within Component 2 (Mark Up), includes compensation to Contractor for: Contractor's direct costs, without overhead or profit, for salaries and related forms of compensation and employer's costs for labor and personnel costs, of Contractor's employees and subconsultant's employees (if any), while and only to the extent they are performing Work at the Project Site. Personnel and Work compensated by this Component include without limitation: All required Project management responsibilities; all on-site services; monthly reporting and scheduling; routine field inspection of Work; general superintendence; general administration and preparation of cost proposals, schedule analysis, change orders and other supporting documentation as necessary; salaries of project superintendent, project engineers, project managers, safety manager, other manager, timekeeper, and secretaries; all cost estimates and updates thereto; development, validation and updates to the project schedule; surveying; estimating. Compensation for Contractor's General Requirements Costs included within Component 2 (Mark Up), compensates Contractor for its "General Requirements" Costs, including without limitation: all scheduling hardware, software, licenses, equipment, materials and supplies; purchase, lease or rental, build out, procurement, supporting equipment and maintenance of temporary on-Site facilities, Project field and office trailers and other temporary facilities, office equipment and supporting utilities; platforms, fencing, cleanup and jobsite security; temporary roads, parking areas, temporary security or safety fencing and barricades, etc.; all Contractor's motor vehicles used by any Contractor's personnel, and all costs thereof; all health and safety requirements, required by law or City procedures; all surveying; all protection of Work; handling and disposal fees; final cleanup; repair or maintenance; other incidental Work; all items, activities and function similar to any of those described above; all travel, entertainment, lodging, board and the like.

6. Personnel compensated by the Markup Component do not include workers of foreman level or below in the case of self-performed work; rather, such personnel shall be treated as a Direct Cost of Construction. Costs compensated by the Markup component do not include temporary measures specifically required by the changed work, not otherwise required or ongoing in the prosecution of the Work, that commence specifically to support the changed work and conclude with the completion of the changed work. Such costs shall be treated as Direct Costs of Construction. Examples of General Requirements costs that this component may not cover are the following: temporary barricades or fencing of specific areas required specifically for the changed work; cranes required specifically for the changed work; extra security required specifically for the changed work.

1.08 MEASUREMENT AND PAYMENT OF BONDS INSURANCE TAXES (COMPONENT 3)

A. Measurement of Bonds, Insurance, Taxes (Component 3):

1. Component 3 (Bonds, Insurance, Taxes) consists of the cost of bonds, insurance and taxes, also referred to as **"BIT".** All State sales and use taxes, applicable County and applicable City sales taxes, shall be included. Federal and Excise tax shall not be included.

2. There is no mark up on BIT.

1.09 EFFECT OF PAYMENT

A. Change Order Compensation is All Inclusive.

1. Except as provided expressly below regarding changes that extend the Contract Time, payment of calculated cost of extra work constitutes full and complete compensation for costs or expense arising from the extra Work, and is intended to be all inclusive.

2. Payment for Direct Cost of Construction (Component 1 or LEMS) is intended to be all-inclusive. Any costs or risks not delineated within cost of labor, equipment or materials herein, shall be deemed to be within the costs and risks encompassed by the applicable Markups and

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unallowable in any separate amount.

3. Payment of Markup (Component 2) is intended to be all-inclusive. Contractor waives claims for any further or different payment of cost and risk items delineated herein, other than the allowable percentage markup on costs set forth in the Contract Documents; such separate, further or different cost or risk items shall be unallowable, waived and liquidated within the allowable percentage markup.

4. Contractor shall recover no other costs or markups on extra work of any type, nature or description.

B. Exception for Changes Extending the Contract Time.

1. Where a change in the Work extends the Contract Time, Contractor may request and recover additional, actual direct costs, provided Contractor can demonstrate such additional costs are (i.) actually incurred performing the Work, (ii.) not compensated by the Markup allowed, and (iii) directly result from the extended Contract Time. Contractor shall make such request and provide such documentation following all required procedures, documentation and time requirements in the Contract Documents, and subject to all contract limitations of liability. Contractor may not seek or recover such costs using formulas (e.g., Eichleay).

C. Limits of Liability / Accord and Satisfaction.

1. The foregoing limits of compensation apply in all cases of claims for changed Work, whether calculating Change Proposal Requests, Change Orders or CDs, or calculating claims and/or damages of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature.

2. Under no circumstances may Contractor claim or recover special, incidental or consequential damages against City, its representatives or agents, whether arising from breach of contract, negligence, strict liability or other tort or legal theory, unless specifically and expressly authorized in the Contract Documents.

3. No change in Work shall be considered a waiver of any other condition of Contract Documents. No claim shall be made for anticipated profit, for loss of profit, for damages, or for extra payment whatever, except as expressly provided for in Contract Documents.

4. Accord and Satisfaction: Every Change Order and accepted CD shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CD, and must also submit a Claim for the reserved disputed items pursuant to Article 12 of Document 00 7200 (General Conditions) no later than thirty (30) calendar days after Contractor's first written notice of its intent to reserve rights. Execution of any Change Order or CD shall constitute Contractor's representation of its agreement with this provision.

1.10 MISCELLANEOUS REQUIREMENTS

A. City-Furnished Materials.

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

B. Records And Certification.

1. All charges shall be recorded daily and summarized in Change Proposal Request form attached hereto. Contractor or authorized representative shall complete and sign form each day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; and a list by size type and identification

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number of equipment and hours operated.

2. City shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for modification of Contract, including CD Work. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to Article 12 of Document 00 7200 (General Conditions).

C.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

[COST PROPOSAL FORM FOLLOWS ON NEXT PAGE]

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COST PROPOSAL (CP)

Owner **1947 Center St. Window Replacement Project**
Contract Number _____

CP Number: _____
Date: _____
In Response To _____
RFP #, etc.

To: City of Berkeley
Attention: **Uriel Gonzalez**
1947 Center Street, 5th Floor
Berkeley, CA 94704
Phone: (510) 981-6400
Fax: (510) 981-6390

From: [Insert Contractor's Name/Address]
_____
_____

This Cost Proposal is in response to the above-referenced _____ **[insert RFP, etc. as applicable]**.
Brief description of change(s): _____
_____

ITEM DESCRIPTION	PRIME CONTRACTOR	SUB 1	SUB 2	SUB 3	SUB 4	TOTAL
MATERIAL						
LABOR						
EQUIPMENT						
Other (Specify) Extended Overhead						
TOTAL COST						
Subcontractor's Overhead & Profit 15 percent						
Contractor's Overhead & Profit 15 percent						
Overhead & Profit to Contractor for Subcontractor's Work 5 percent						
(percent of Total Cost above not including any Overhead & Profit – may not exceed 20%)						
GRAND TOTAL						
REQUESTED CHANGE IN CONTRACT TIME (CALENDAR DAYS) (Time Impact Evaluation Enclosed)						

By Contractor: Signature: Date:

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3119

PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY

A. Summary

1. Section includes description of required project meetings.

1.02 PRECONSTRUCTION CONFERENCE

A. Preconstruction Conference. City will call for and administer Preconstruction Conference at time and place to be announced (usually the week prior to start of Work at the Site). Contractor, all major Subcontractors, and major suppliers shall attend Preconstruction Conference. Agenda may include, but not be limited to, the following items:

1. Schedules
2. Personnel and vehicle permit procedures
3. Use of premises
4. Location of the Contractor's on-Site facilities & Temporary Utilities
5. Security
6. Housekeeping
7. Submittal and RFI procedures
8. Inspection and testing procedures, on-Site and off-Site
9. Utility shutdown procedures
10. Control and reference point survey procedures
11. Injury and Illness Prevention Program
12. Contractor's Initial Progress Schedule
13. Contractor's Schedule of Values
14. Contractor's Schedule of Submittals
15. Jurisdictional agency requirements
16. Project Communication Procedures
17. Modification Procedures
18. Site Access by City and Consultants
19. As-Built/Record Documents
20. Permits & Fees
21. Coordination: (Work Performed for City under separate contract). (As Appropriate)
22. City will distribute copies of minutes to attendees. Attendees shall have 7 calendar days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of Preconstruction Conference.

1.03 WEEKLY PROJECT MEETINGS

A. City will schedule and administer weekly progress meetings throughout duration of Work. Progress meetings will be held weekly unless otherwise directed by City. Meetings shall be held at City's Offices unless otherwise specified in Contract Documents.

1. City's Representative will prepare agenda and distribute it 4 calendar days in advance of meeting to Contractor.

2. Participants with agenda items shall present them.

3. The Architect/Engineer and other responsible entities shall attend meetings unless otherwise

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specified in Contract Documents or provided by City.

4. City shall record and distribute the meeting minutes. Minutes shall be distributed by the City to the Contractor within 3 business days after the meeting. Contractor shall distribute the minutes to those affected by decisions made at meeting. Attendees shall have five business days to submit comments or additions to the minutes. Minutes shall constitute final memorialization of results of meeting.
5. Progress meetings shall be attended by Contractor's job superintendent, major Subcontractors and suppliers, City, and others as appropriate to agenda topics for each meeting.
6. Agenda may contain the following items, as appropriate:

a. Review, revise as necessary, and approve previous meeting minutes
b. Review of Work progress since last meeting
c. Status of Construction Work Schedule, delivery schedules, adjustments
d. Submittal, RFI, and Change Order status
e. Review of the Contractor's safety program activities and results, including report on all serious injury and/or damage accidents
f. Other items affecting progress of Work

1.04 PROGRESS SCHEDULE AND BILLING MEETINGS

A. A meeting will be held on approximately the 20th of each month to review the schedule update submittal and progress payment application.

B. At this meeting, at a minimum, the following items will be reviewed:

1. Percent complete of each activity;
2. Time impact evaluations for Change Orders and Time Extension Request;
3. Actual and anticipated activity sequence changes;
4. Actual and anticipated duration changes; and
5. Actual and anticipated Contractor delays.
6. Waste Management Tracking/Tags
7. As-Built/Record Documents

C. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, Contractor's General Superintendent and Scheduler shall attend these meetings.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3230

PROGRESS SCHEDULES AND SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes description of requirements and procedures for submitting progress schedules and submittals.

1.02 CONTRACTOR TO SUBMIT PROGRESS SCHEDULES

A. Contractor shall submit original (baseline) progress schedule two weeks prior to the first Application for Payment.

B. Baseline Progress Schedule shall show Contractor's construction and procurement activities, including but not limited to, equipment procurement and delivery (Contractor and City supplied), activities with Subcontractors and suppliers, major submittal reviews, commissioning of systems, use of major equipment on site, and necessary interface with City and third parties required to complete the Work in a timely manner and in accordance with Contract Time.

1.03 SCHEDULE REQUIREMENTS.

A. Unless City agrees in writing otherwise, progress schedule shall be on Microsoft Project, Primavera P6, Suretrack, or equivalent software, as City may specify, which Contractor shall prepare and supply to City, with all datapoint entries completed for start dates, necessary work activities, durations (not longer than 21 calendar days) and logic ties.

B. Contractor's progress schedule may be in the form of a CPM (arrow) diagram or, if City agrees in writing, a bar chart or a Gantt chart. The hard copies of the schedule supplied to City shall indicate the critical path of the Work (in red) and shall show a logical progression of the Work through completion within Contract Time.

C. Unless City agrees in writing otherwise, progress schedule shall also show early and late start and finish dates and total available float (float to the successor activity's late start date) for each activity. City has no obligation to accept an early completion schedule.

1.04 MONTHLY UPDATES

A. Contractor's progress schedule shall be updated monthly to reflect actual progress. The schedule shall be subject to City's review and acceptance for use in monitoring Contractor's Work and evaluating Applications for Payment.

B. Contractor shall supply City with an electronic copy of the updated progress schedule with each monthly payment application. Contractor shall provide City with **three-week** look ahead schedules weekly, showing in detail and activities and resources scheduled for the immediate two week period.

1.05 RECOVERY SCHEDULE

A. City may request a recovery schedule should Contractor fall 21 or more calendar days behind any schedule Milestone, which schedule shall show Contractor's plan and resources committed to retain Contract completion dates.

B. The recovery schedule shall show the intended critical path. If City requests, Contractor shall also:

1. Secure and demonstrate appropriate Subcontractor and supplier consent to the recovery

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Schedule.

2. Submit a narrative explaining trade flow and construction flow changes and man-hour loading assumptions for major Work activities and/or Subcontractors.

1.06 TIME IMPACT EVALUATION ("TIE") FOR CHANGE ORDERS, TIME EXTENSIONS AND DELAYS:

A. When Contractor requests a time extension for any reason, Contractor shall submit a TIE that includes both a written narrative and a schedule diagram depicting how the changed Work or other impact affects other schedule activities. The schedule diagram shall show how Contractor proposes to incorporate the changed Work or other impact in the schedule and how it impacts the current Schedule update critical path or otherwise. Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram shall be tied to the main sequence of scheduled activities to enable City to evaluate the impact of changed Work to the scheduled critical path.

B. Contractor is responsible for all costs associated with the preparation of TIE's, and the process of incorporating TIE's into the current schedule update. Provide City with four copies of each TIE.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3300

SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes description of requirements and procedures for submittals.

1.02 SCHEDULE OF SUBMITTALS

A. Contractor shall prepare for City's review and acceptance prior to commencement of work on the Site, for purposes of contract administration, a schedule of submittals (also referred to as a submittal register) required to complete the Work, prepared by Contractor and accepted by City for contract administration. Schedule of submittals shall include, for each submittal: the specification or drawing reference requiring the submittal, if applicable; the material, item, or process for which the submittal is required; the submittal number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.

B. Contractor shall update monthly the schedule of submittals to reflect actual submission and acceptance dates for submittals. Review by City of schedule of submittals does not excuse Contractor of obligation to supply, schedule and coordinate all submittals required by the Contract Documents.

1.03 CONTRACTOR TO SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

A. Contractor shall review for compliance with Contract Documents, approve and submit to City Shop Drawings, Product Data, Samples and similar submittals required by Contract Documents.

B. Contractor shall schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Contractor shall include certifications to be submitted with the pertinent drawings at the same time.

C. Contractor shall coordinate scheduling, sequencing, preparing and processing of all submittals with performance of work so that work will not be delayed by submittal processing.

D. Submittals shall specifically identify any Work depicted that does not conform to the Contract Documents.

1.04 CITY REVIEW OF SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

A. After review by City of each Submittal, material will be returned to Contractor with actions defined as follows:

1. NO EXCEPTIONS TAKEN - Accepted subject to its compatibility with general design concept of the Work, future Submittals and additional partial Submittals for any portions of the Work not covered in this Submittal. Does not constitute acceptance or deletion of specified or required items not shown on the Submittal.
2. MAKE CORRECTIONS NOTED (NO RESUBMISSIONS REQUIRED) - Same as item 1 above, except that minor corrections as noted shall be made by Contractor.
3. REVISE AS NOTED AND RESUBMIT - Rejected because of major inconsistencies or errors that shall be resolved or corrected by Contractor prior to subsequent review by City.
4. REJECTED - RESUBMIT - Submitted material does not conform to Drawings and/or Specifications in major respect, i.e.: wrong size, model, capacity, or material.

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B. Favorable review will not constitute acceptance by City of any responsibility for the accuracy, coordination, or completeness of the Submittals. Accuracy, coordination, and completeness of Submittals shall be sole responsibility of Contractor, including responsibility to back-check comments, corrections, and modifications from City's review before fabrication. Contractor, Subcontractors, or suppliers may prepare Submittals, but Contractor shall ascertain that Submittals meet requirements of Contract Documents, while conforming to structural space and access conditions at point of installation. City's review will be only to assess if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as indicated by the Contract Documents. Favorable review of Submittal, method of Work, or information regarding materials and equipment Contractor proposes to furnish shall not relieve Contractor of responsibility for errors therein and shall not be regarded as assumption of risks or liability by City, or any officer or employee thereof, and Contractor shall have no claim under Contract Documents on account of failure or partial failure or inefficiency or insufficiency of any plan or method of Work or material and equipment so accepted. Favorable review shall be considered to mean merely that City has no objection to Contractor using, upon Contractor's own full responsibility, plan or method of Work proposed, or furnishing materials and equipment proposed.

C. Unless otherwise specified, City's review will not extend to the means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

D. Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been favorably reviewed by the City; otherwise, any such Work is at Contractor's sole risk.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4100

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Regulatory requirements applicable to Contract Documents
2. Required provisions under Local Agency Disputes Act
3. Required references under federal law

1.02 GENERAL

A. Compliance with Laws

1. Conform to all applicable codes, laws, ordinances, rules and regulations, which shall have full force and effect as though printed in full in these Specifications. Codes, laws, ordinances, rules, regulations and ordinances (**Regulatory Requirements**) are not furnished to Contractor, because Contractor is assumed to be familiar with these requirements.
2. Any listing of Regulatory Requirements for hazardous waste abatement Work in the Contract Documents is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable Regulatory Requirements having application to the Work. Where conflict among the Regulatory Requirements or with these Specifications occurs, the most stringent requirements shall be used.
3. Specific reference in the Specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the regulatory agency in effect at the time of the opening of Bids, except as may be otherwise specifically stated in the Contract Documents.

B. Precedence

1. Where specified requirements differ from Regulatory Requirements, the more stringent requirements shall take precedence. Where Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by Regulatory Requirements, then Drawings and Specifications shall take precedence so long as such increase is legal. Where no requirements are identified on Drawings or in Specifications, comply with all Regulatory Requirements of governing authorities having jurisdiction.
2. Should any conditions develop not covered by the Contract Documents wherein the finished Work will not comply with current codes, a Change Order detailing and specifying the required Work shall be submitted to and approved by City before proceeding with the Work.

1.03 REGULATORY REQUIREMENTS

A. Applicable Codes

1. Codes that apply to Contract Documents include all Codes applicable to construction, including, but not limited to, the following:
   a. California Building Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.

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b. California Electrical Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
c. California Plumbing Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for plumbing, sewage disposal and health requirements.
d. California Mechanical Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
e. California Energy Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
f. California Green Building Standard Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
g. International Fire Code (2016 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
h. California Administrative Code Titles 15, 19 and 24 (with California amendments), and Americans with Disabilities Act (ADA) accessibility guidelines, whichever is more stringent.
i. All State laws and City and County Ordinances, rules of the State or City or County Health Departments, rules of the National Board of Fire Underwriters and National Fire Protection Associations, and local power company regulations for mechanical and electrical work.

B. Applicable Laws, Statutes, Ordinances, Rules, And Regulations

1. During prosecution of Work to be done under Contract Documents, Contractor shall comply with applicable laws, ordinances, rules and regulations, including, but not limited to, the following:

a. Federal:
1) Americans With Disabilities Act of 1990
2) 29 CFR, Section 1910.1001, Asbestos
3) 40 CFR, Subpart M, National Emission Standards for Asbestos
4) Executive Order 11246
5) Federal Endangered Species Act
6) Clean Water Act

b. State of California:
1) California Code of Regulations, Titles 5, 8, 17, 19, 21, 22, 24 and 25
2) California Public Contract Code
3) California Health and Safety Code
4) California Government Code
5) California Labor Code
6) California Civil Code
7) California Code of Civil Procedure
8) CPUC General Order 95, Rules for Overhead Electric Line Construction
9) CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
10) Cal/OSHA
11) OSHA: Hazard Communications Standards
12) California Endangered Species Act
13) Water Code
14) Fish and Game Code

c. State of California Agencies:
1) State and Consumer Services Agency
2) Office of the State Fire Marshall
3) Office of Statewide Health Planning and Development
4) Department of Fish and Game
5) All Air Quality Management Districts with jurisdiction
6) All Regional Water Quality Control Boards with jurisdiction
7) Division of the State Architect (if having jurisdiction)

d. <u>All Local Agencies with jurisdiction (cities, counties, fire departments)</u>

C. Change Orders and Claims:

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1. The California Public Contract Code, including but not limited to Section 7105(d)(2), and the California Government Code Section 930.2 et seq., apply to all contract procedures for changes, time extensions, change orders (time or compensation) and claims. Federal law (U.S. v. Holpuch 326 U.S. 234) shall supplement California law on the enforceability of these requirements.
2. Any change, waiver, or omission to implement contract change order and claim procedures shall have no legal effect unless expressly permitted in a fully executed change order approved by Contractor and City and approved as to form by their respective legal counsel.

D. Required Provisions On Contract Claim Resolution

1. The California Public Contract Code specifies required provisions on resolving contract claims less than $375,000, which are set forth below, and constitute a part of this Contract.
2. For the purposes of this section, “Claim” means a separate demand by Contractor of $375,000 or less for (1) a time extension, (2) payment or money or damages arising from Work done by or on behalf of Contractor arising under the Contract Documents and payment of which is not otherwise expressly provided for or the Claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by City. In order to qualify as a Claim, the written demand must state that it is a Claim submitted under paragraph 12 of Document 00 7200 (General Conditions) and be submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12. Separate Claims which total more than $375,000 do not qualify as a “separate demand of $375,000 or less,” as referenced above, and are not subject to this section.
3. A voucher, invoice, payment application, or other routine or authorized form of request for payment is not a Claim for purposes of this section. If such request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a Claim under this section by submitting a separate claim in compliance with Contract Documents claim submission requirements.
4. Caution. This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 and Chapter 2 of Part 3 of Division 3.6 of Title 1 of the California Government Code.
5. Procedure:
   a. The Claim must be in writing, submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12, including, but not limited to, the time prescribed by and including the documents necessary to substantiate the Claim, pursuant to Document 00 7200 (General Conditions), paragraph 12.3. Claims must be filed on or before the day of final payment. Nothing in this section is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth in Document 00 7200 (General Conditions), paragraph 12 or elsewhere in the Contract Documents.
   b. For Claims of fifty thousand dollars ($50,000) or less, City shall respond in writing within forty-five (45) calendar days of receipt of the Claim, or City may request in writing within thirty (30) calendar days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims City may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section upon mutual agreement of City and Claimant. City’s written response to the Claim, as further documented, shall be submitted to Claimant within fifteen (15) calendar days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.
   c. For Claims over Fifty Thousand Dollars ($50,000) and less than or equal to $375,000: City shall respond in writing within sixty (60) calendar days of receipt of the Claim, or City may request in writing within thirty (30) calendar days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims City may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section, upon mutual agreement of City and Claimant;

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City's written response to the Claim, as further documented, shall be submitted to Claimant within thirty (30) calendar days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.

d. Meet and Confer: If Claimant disputes City's written response, or City fails to respond within the time prescribed above, Claimant shall notify City, in writing, either within fifteen (15) calendar days of receipt of City's response or within fifteen (15) calendar days of City's failure to timely respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand City will schedule a meet and confer conference within thirty (30) calendar days for settlement of the dispute.

e. Following the meet and confer conference, if the Claim or any portion remains in dispute, Claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the California Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time Claimant submits its written claim as set forth herein, until the time that Claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

E. Compliance With Americans With Disabilities Act

1. Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Contractor, must be accessible to the disabled public. Contractor shall provide the services specified in the Contract Documents in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under the Contract Documents and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns shall constitute a material breach of the Contract Documents.

F. Compliance With IRCA

1. Contractor acknowledges that Contractor, and all subcontractors hired by Contractor to perform services under this Agreement, are aware of and understand the immigration Reform and Control Act ("IRCA"). Contractor is and shall remain in compliance with the IRCA and shall ensure that any subcontractors hired by Contractor to perform services under this Agreement are in compliance with the IRCA. In addition, Contractor agrees to indemnify, defend and hold harmless City, its agents, officers and employees, from any liability, damages or causes of action arising out of or relating to any claims that Contractor's employees, or employees of any subcontractor hired by Contractor, are not authorized to work in the United States for Contractor or its subcontractor and/or any other claims based upon alleged IRCA violations committed by Contractor or Contractor's subcontractors.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4200

REFERENCES AND DEFINITIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Reference standards, abbreviations, symbols, and definitions used in Contract Documents.
2. Full titles are given in this Section for standards cited in other Sections of Specifications.

1.02 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES; REPORTING AND RESOLVING DISCREPANCIES

A. References

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code, or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated in the Contract Documents.
2. If during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual, or code or of any instruction of any supplier, Contractor shall report it in writing at once to City's Representative and Architect/Engineer, and Contractor shall not proceed with the Work affected thereby until consent to do so is given by City.

B. Precedence

1. Except as otherwise specifically stated in the Contract Documents or as may be provided by Change Order, CCD, or Supplemental Instruction, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
   a. The provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
   b. The provisions of any such laws or regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation).
2. No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of City, City's Representative, Architect/Engineer or Contractor, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to City, Architect/Engineer, or any of their consultants, agents, representatives or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

C. Referenced Grades, Classes, and Types:

1. Where an alternative or optional grade, class, or type of product or execution is included in a reference but is not identified in Drawings or in Specifications, provide the highest, best, and

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greatest of the alternatives or options for the intended use and prevailing conditions.

D. Edition Date of References:

1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of opening Bids.
2. All amendments, changes, errata and supplements as of the effective date shall be included.

E. **ASTM and ANSI References:** Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

1.03 DEFINITIONS

A. Meaning of Words and Phrases

Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of the Contract Documents, it shall have the meaning here set forth. Where abbreviations and symbols are used, such abbreviations and symbols shall be given their common meaning in the construction industry. In the Contract Documents, the neuter gender includes the feminine and masculine, and the singular number includes the plural.

While City has made an effort to identify all defined terms with initial caps, the following definitions shall apply regardless of case unless the context otherwise requires:

1. Addenda: Written or graphic instruments issued prior to the opening of Bids, which clarify, correct, or change the bidding requirements or the Contract Documents. Addenda shall not include the minutes of the Pre-Bid Conference and/or Site Visit.
2. Agreement (Document 00 5200): Agreement is the basic Contract Document that binds the parties to construction Work. Agreement defines relationships and obligations between City and Contractor and by reference incorporates Conditions of Contract, Drawings, and Specifications and contains Addenda and all Modifications subsequent to execution of Contract Documents.
3. Alternate: Work added to or deducted from the base Bid, if accepted by City.
4. Application for Payment: Written application for monthly or periodic progress or final payment made by Contractor complying with the Contract Documents.
5. Approved Equal: Approved in writing by City as being of equivalent quality, utility and appearance.
6. Architect/Engineer: If used elsewhere in the Contract Documents, “Architect/Engineer” shall mean a person (or that person’s firm) holding a valid California State Architect’s or Engineer’s license representing the City in the administration of the Contract Documents. Architect/Engineer may be an employee of or an independent consultant to City. When Architect/Engineer is referred to within the Contract Documents and not an employee of City, Architect/Engineer shall be construed to include employees of Architect/Engineer and/or employees that Architect/Engineer supervises. When the designated Architect/Engineer is an employee of City, his or her authorized representatives on the Project will be included under the term Architect/Engineer. If Architect/Engineer is an employee of City, Architect/Engineer is the beneficiary of all Contractor obligations to City, including without limitation, all releases and indemnities. Architect/Engineer may also be referred to as Architect or Engineer.
7. Asbestos: Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA or Cal/OSHA.

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8. Bid: The offer or proposal of the Bidder submitted on the prescribed form(s) setting forth the prices for the Work to be performed.

9. Bidder: One who submits a Bid.

10. Bidding Documents: All documents comprising the Project Manual (including all documents and Specification Sections listed in Document 00 0110 [Table of Contents]), including documents supplied for bidding purposes only and Contract Documents.

11. Business Day: Any Day other than Saturday, Sunday, and the following days that have been designated as holidays by City. If a holiday falls on a Saturday, the preceding Friday will be the holiday. If a holiday falls on a Sunday, the following Monday will be the holiday.

a. New Year's Day, January 1;
b. Martin Luther King Jr.'s Birthday, third Monday in January;
c. Lincoln's Birthday, February 12;
d. Presidents' Day, third Monday in February;
e. Malcolm X Day, third Friday in May;
f. Memorial Day, last Monday in May;
g. Juneteenth, June 19;
h. Independence Day, July 4;
i. Labor Day, first Monday in September;
j. Indigenous People's Day, second Monday in October;
k. Veterans' Day, November 11;
l. Thanksgiving Day, as designated by the President;
m. The Day following Thanksgiving Day;
n. Christmas Day, December 25; and
o. Each day appointed by the Governor of California and formally recognized by the Governing Board as a day of mourning, thanksgiving, or special observance.

12. By City: Work that will be performed by City or its agents at the City's expense.

13. By Others: Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by City, other contractors, or other means.

14. Change Order: A written instrument prepared by City and signed by City and Contractor, stating their agreement upon all of the following:

a. a change in the Work;
b. the amount of the adjustment in the Contract Sum, if any; and
c. the amount of the adjustment in the Contract Time, if any.

15. Change Proposal Request (CPR): A document prepared by Contractor requesting or initiating a request for modifying the Contract Documents and determining costs for changes in contract amount and any requested changes to Contract Time.

16. City: City is defined in Document 00 5200 (Agreement).

17. City-Furnished, Contractor Installed: Items furnished by City at its cost for installation by Contractor at its cost under Contract Documents.

18. City's Representative(s): See Document 00 5200 (Agreement).

19. Code Inspector: A local or state agency responsible for the enforcement of applicable codes and regulations.

20. Concealed: Work not exposed to view in the finished Work, including within or behind various construction elements.

21. Construction Change Directive ("CCD"): A written order prepared and signed by City, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both.

22. Contract Amount: a change order price, line item price, Contract Sum, or other price assigned to

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a scope of work.

23. Contract Conditions or Conditions of the Contract: Consists of two parts: General Conditions and Supplementary Conditions.

a. General Conditions are general clauses that are common to the City Contracts, including Document 00 7200 (General Conditions).
b. Supplementary Conditions modify or supplement General Conditions to meet specific requirements for Contract Documents, including Document 00 7201 (Supplementary Conditions).

24. Contract Documents and Contract: Contract Documents and Contract shall consist of the documents identified as the Contract Documents in Document 00 5200 (Agreement), plus all changes, Addenda, and modifications thereto.

25. Contract Modification: Either:

a. a written amendment to Contract signed by Contractor and City; or
b. a Change Order; or
c. a Construction Change Directive; or
d. a written directive for a minor change in the Work issued by City.

26. Contract Sum: The sum stated in the Agreement and, including authorized adjustments, the total amount payable by City to Contractor for performance of the Work and the Contract Documents. The Contract Sum is also sometimes referred to as the Contract Price or the Contract Amount.

27. Contract Time: The number or numbers of calendar days or the dates stated in the Agreement to achieve Substantial Completion of the Work or designated Milestones; and/or to achieve Final Completion of the Work so that it is ready for final payment and is accepted.

28. Contractor: The person or entity identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and neutral in gender. The term “Contractor” means the Contractor or its authorized representative.

29. Contractor’s Employees: Persons engaged in execution of Work under Contract as direct employees of Contractor, as Subcontractors, or as employees of Subcontractors.

30. Council: The governing body of the City.

31. Day: One calendar day of 24 hours measured from midnight to the next midnight, unless the word “day” is specifically modified to the contrary.

32. Defective: An adjective which, when modifying the word “Work,” refers to Work that is unsatisfactory or unsuited for the use intended, faulty, or deficient, that does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents (including but not limited to approval of Samples and “or equal” items), or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by City). Unapproved substitutions are defective. City is the judge of whether Work is Defective.

33. Division of State Architect: A division of the State of California providing, design and construction oversight for K–12 schools and community colleges, and developing and maintaining accessibility standards and codes utilized in public and private buildings throughout the State of California.

34. Drawings: The graphic and pictorial portions of Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

35. Equal: Equal in opinion of City. Burden of proof of equality is responsibility of Contractor.

36. Final Acceptance or Final Completion: City’s acceptance of the Work as satisfactorily completed in accordance with Contract Documents. Requirements for Final Acceptance/Final

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Completion include, but are not limited to:

a. Final cleaning is completed.
b. All systems having been tested and accepted as having met requirements of Contract Documents.
c. All required instructions and training sessions having been given by Contractor.
d. All Project Record Documents having been submitted by Contractor, reviewed by City, and accepted by City.
e. All punch list Work, as directed by City, having been completed by Contractor.
f. Generally all Work, except Contractor maintenance after Final Acceptance/Final Completion, having been completed to satisfaction of City.

37. Force Account: Work directed to be performed without prior agreement as to lump sum or unit price cost thereof, and which is to be billed at cost for labor, materials, equipment, taxes, and other costs, plus a specified percentage for overhead and profit.

38. Exposed: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.

39. Furnish: Supply Indicated: Shown or noted on the Drawings.

40. Indicated: Shown or noted on the Drawings.

41. Install: Install or apply only, do not furnish.

42. Latent: Not apparent by reasonable inspection, including but not limited to, the inspections and research required as a condition to bidding under Document 00 7200 (General Conditions).

43. Law: Unless otherwise limited, all applicable laws including without limitation all federal, state, and local laws, statutes, standards, rules, regulations, ordinances, and judicial and administrative decisions.

44. Material: This word shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with Contract, except where a more limited meaning is indicated by context.

45. Milestone: A principal event specified in Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all Work.

46. Modification: Same as Contract Modification.

47. Not in Contract or "NIC": Work that is outside the scope of Work to be performed by Contractor under Contract Documents.

48. Notice of Completion: Shall have the meaning provided in California Civil Code §3093, and any successor statute.

49. Off Site: Outside geographical location of the Project.

50. Owner: Owner is the City of Berkeley, see Document 00 5200 (Agreement).

51. Partial Utilization: Use by City of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all of the Work.

52. PCBs: Polyclorinated byphenyls.

53. Phase: A specified portion of the Work (if any) specifically identified as a Phase in Document 00 5200 (Agreement) or Document 01 1100 (Summary).

54. Product Data: That information (brochures, catalog sheets, manufacturer's cut sheets, etc.) supplied by vendors having technical and commercial characteristics of the supplied equipment or materials and accompanying commercial terms such as warranties, instructions, and manuals.

55. Progress Report: A periodic report submitted by Contractor to City with progress payment

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invoices accompanying progress schedule. See Document 00 7200 (General Conditions).

56. Project: Total construction of which Work performed under Contract Documents may be whole or part.

57. Project Manager: If used elsewhere in the Contract Documents, "Project Manager" shall mean a person representing the City in the administration of the Contract Documents. Project Manager may be an employee of or an independent consultant to City. When Project Manager is referred to within the Contract Documents and no Project Manager has in fact been designated, then the matter shall be referred to City. The term Project Manager shall be construed to include employees of Project Manager and/or employees that Project Manager supervises. When the designated Project Manager is an employee of City, his or her authorized representatives on the Project will be included under the term Project Manager. If Project Manager is an employee of City Project Manager is the beneficiary of all Contractor obligations to City, including without limitation, all releases and indemnities.

58. Project Manual: Project Manual consists of Bidding Requirements, Agreement, Bonds, Certificates, Contract Conditions, Drawings, and Specifications.

59. Project Record Documents: All Project deliverables required under the Contract Documents, including without limitation, as built drawings; Installation, Operation, and Maintenance Manuals; and Machine Inventory Sheets.

60. Provide: Furnish and install.

61. Public Right-of-Way Accessibility Guidelines ("PROWAG"): Standards published by the U.S. Access Board ensuring pedestrian facilities are accessible to people with disabilities, providing technical requirements for designing, constructing, and altering public rights-of-way to comply with the Americans with Disabilities Act.

62. Request for Information ("RFI"): A document prepared by Contractor requesting information regarding the Project or Contract Documents. The RFI system is also a means for City to submit Contract Document clarifications or supplements to Contractor.

63. Request for Proposals ("RFP"): A document issued by City to Contractor whereby City may initiate changes in the Work or Contract Time as provided in Contract Documents.

64. Request for Substitution ("RFS"): A document prepared by Contractor requesting substitution of materials as permitted and to the extent permitted in Contract Documents.

65. RFI-Reply: A document consisting of supplementary details, instructions, or information issued by City that clarifies or supplements Contract Documents, and with which Contractor shall comply. RFI-Replies do not constitute changes in Contract Sum or Contract Time except as otherwise agreed in writing by City. RFI-Replies will be issued through the RFI administrative system.

66. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

67. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

68. Shown: As indicated on Drawings.

69. Site: The particular geographical location of Work performed pursuant to the Contract Documents.

70. Specifications: The written portion of the Contract Documents consisting of requirements for materials, equipment, construction systems, standards, and workmanship for the Work; performance of related services.

71. Specified: As written in Specifications.

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72. Subcontractor: A person or entity that has a direct contract with Contractor to perform a portion of the Work at the Site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and neutral in gender and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

73. Substantial Completion: The Work (or a specified part thereof) has progressed to the point where, in the opinion of City as evidenced by a notice or certificate of Substantial Completion, the Work is sufficiently complete, in accordance with Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended, and unperformed or incomplete work elements are minor in nature; or if no such certificate is issued, when the Work (or specified part) is complete and ready for final payment as evidenced by written recommendation of City for final payment. The terms "Substantially Complete" and "Substantially Completed" as applied to all or part of the Work refer to Substantial Completion thereof.

74. Supplemental Instruction: A written directive from City to Contractor ordering alterations or Modifications that do not result in change in Contract Sum or Contract Time, and do not substantially change Drawings or Specifications.

75. Testing and Special Inspection Agency: An independent entity engaged to inspect and/or test the workmanship, materials, or manner of construction of buildings or portions of buildings, to determine if such construction complies with the Contract Documents and applicable codes.

76. Time Impact Evaluation (TIE): A written narrative and a schedule diagram depicting how the changed Work or other impact affects other scheduled activities, prepared by Contractor in conjunction with a Change Proposal Request (CPR) for Change Orders, Time Extensions, and Delays. See Document 01 3230 (Progress Schedules and Submittals), and Document 01 2600 (Modification Procedures).

77. Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities that have been installed underground to furnish any of the following services or materials: Electricity, gases, chemicals, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.

78. Unit Price Work: Shall be the portions of the Work for which a unit price is provided in Document 00 5200 (Agreement) or Section 01 1100 (Summary).

79. Work: The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents within the Contract Time. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents including everything shown in the Drawings and set forth in the Specifications. Wherever the word "work" is used, rather than the word "Work," it shall be understood to have its ordinary and customary meaning.

B. Other Defined Terms

The following terms are not necessarily identified with initial caps; however they shall have the meaning set forth below:

1. Wherever words "as directed," "as required," "as permitted," or words of like effect are used, it shall be understood that direction, requirements, or permission of City is intended. Words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary, or proper in judgment of City. Words "approved," "acceptable," "satisfactory," "favorably reviewed," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, or favorably reviewed by City.

2. Wherever the word "may" or "ought" is used, the action to which it refers is discretionary.

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Wherever the word “shall” or “will” is used, the action to which it refers is mandatory.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4500

TESTING AND INSPECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Regulatory requirements for testing and inspection.
2. Contractor's quality control.
3. Quality of the Work.
4. Inspections and tests by governing authorities.
5. Inspections and tests by serving utilities.
6. Inspections and tests by manufacturer's representatives.
7. Inspections by Independent Testing and Inspection Agency.

1.02 RELATED SECTIONS

A. Document 00 7200 General Conditions

B. Section 01 4100 Regulatory Requirements

1.03 CONTRACTOR'S QUALITY CONTROL

A. Contractor's Quality Control: Contractor shall ensure that products, services, workmanship and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing and inspecting the work and by utilizing only suitably qualified personnel.

B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations and standards. When no quality basis is prescribed, the quality shall be in accordance with the best accepted practices of the construction industry for the locale of the Project, for projects of this type.

C. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.

1.04 QUALITY OF THE WORK

A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects and fit for the intended use.

B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.

C. Protection of Completed Work: Take all measures necessary to preserve completed Work free from damage, deterioration, soiling and staining, until Acceptance by the City.

D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating erecting, installing, applying, connecting and finishing

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Work.

E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.

F. Verification of Quality: Work shall be subject to verification of quality by City or Architect/Engineer in accordance with provisions of the General Conditions of the Contract.

1. Contractor shall cooperate by making Work available for inspection by City, Architect/Engineer or their designated representatives.
2. Such verification may include mill, plant, shop, or field inspection as required.
3. Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
4. Provide all information and assistance as required, including that by and from subcontractors, fabricators, materials suppliers and manufacturers, for verification of quality by City or Architect/Engineer.
5. Contract modifications, if any, resulting from such verification activities shall be governed by applicable provisions in the General Conditions of the Contract.

G. Observations by Architect/Engineer: Periodic and occasional observations of Work in progress will be made by Architect/Engineer as deemed necessary to review progress of Work and general conformance with design intent.

H. Limitations on Inspection, Test and Observation: Neither employment of independent testing and inspection agency nor observations by Architect/Engineer shall in way relieve Contractor of obligation to perform Work in full conformance to all requirements of Contract Documents.

I. Rejection of Work: City reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications.

J. Correction of Non-Conforming Work: Non-conforming Work shall be modified, replaced, repaired or redone by the Contractor at no change in Contract Sum or Contract Time.

K. Acceptance of Non-Conforming Work: Acceptance of nonconforming Work, without specific written acknowledgement and approval of the City, shall not relieve the Contractor of the obligation to correct such Work.

L. Contract Adjustment for Non-Conforming Work: Should City determine that it is not feasible or in City's interest to require non-conforming Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between City and Contractor. If equitable amount cannot be agreed upon, a Construction Change Directive will be issued and the amount in dispute resolved in accordance with applicable provisions of the General Conditions.

1.05 INSPECTIONS AND TESTS BY GOVERNING AUTHORITIES

A. Regulatory Requirements for testing and Inspection: Comply with Uniform Building Code (UBC) requirements and all other requirements of governing authorities having jurisdiction.

B. Inspections and Tests by Governing Authorities: Contractor shall cause all tests and inspections required by governing authorities having jurisdiction to be made for Work under this Contract.

1. Such authorities include the Division of Occupational Safety and Health (Cal/OSHA), City of Berkeley Public Works Department, Fire Department, and similar agencies.
2. Except as specifically noted, scheduling, conducting and paying for such inspections shall be solely the Contractor's responsibility.

1.06 INSPECTIONS AND TESTS BY SERVING UTILITIES

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A. Inspections and Tests by Serving Utilities: Contractor shall cause all tests and inspections required by serving utilities to be made for Work under this Contract. Scheduling conducting and paying for such inspections shall be solely the Contractor's responsibility.

1.07 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES

A. Inspections and Tests by Manufacturer's Representatives: Contractor shall cause all tests and inspections specified to be conducted by materials or systems manufacturers to be made. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be made, the cost of which shall be included in the Contract Sum.

1.08 INSPECTIONS BY INDEPENDENT TESTING AND INSPECTION AGENCY

A. City will select an independent testing and inspection agency or agencies to conduct tests and inspections as indicated on Drawings, in Specifications and as required by governing authorities having jurisdiction.

B. Responsibility for payment for tests and inspections shall be as indicated in schedule below. All time and costs for Contractor's service related to such tests and inspections shall be included in Contract Time and Contract Sum.

C. Contractor shall notify City and, if directed by City, testing and inspection agency, when Work is ready for specified tests and inspections.

D. Contractor shall pay for all additional charges by testing and inspection agencies and governing authorities having jurisdiction due to the following:

1. Contractor's failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
2. Changes in sources, lots or suppliers of products after original tests or inspections.
3. Changes in means methods, techniques, sequences and procedures of construction which necessitate additional testing, inspection and related services.
4. Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.

E. Tests and inspections shall include the following:

Section	Inspections and Tests	Paid by
Section 321312- Concrete Reinforcing & Miscellaneous Steel	Reinforcement strength	Paid by City.
Section 321313- Cast-in-Place Concrete	Slump Tests Compressive strength	Paid by City. Paid by City.

F. Test and Inspection Reports: After each inspection and test, one copy of report shall be promptly submitted each to Architect/Engineer, City, City's field representative, Contractor and to agency having jurisdiction (if required by Code).

1. Reports shall clearly identify the following:

a. Date issued.
b. Project name and number.
c. Identification of product and Specifications Section in which Work is specified.
d. Name of inspector.
e. Date and time of sampling or inspection.
f. Location in Project where sampling or inspection was conducted.

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g. Type of inspection or test.
h. Date of test.
i. Results of tests.
j. Comments concerning conformance with Contract Documents and other requirements.

2. Test reports shall indicate specified or required values and shall include statement whether test results indicate satisfactory performance of products.

3. Samples taken but not tested shall be reported.

4. Test reports shall confirm that methods used for sampling and testing conform to specified test procedures.

5. When requested, testing and inspection agency shall provide interpretations of test results.

6. Verification reports shall be prepared and submitted, stating that tests and inspections specified or otherwise required for the project, have been completed and that material and workmanship comply with the Contract Drawings and Specifications. Verification reports shall be submitted at intervals not exceeding 6 months, at Substantial Completion of the Project, and at all times when Work of Project is suspended.

G. Contractor Responsibilities in Inspections and Tests:

1. Notify testing and inspection agencies 24 hours in advance of expected time for operations requiring inspection and testing services.

2. Deliver to laboratory or designated location, adequate samples of materials proposed to be used which require advance testing, together with proposed mix designs.

3. Cooperate with testing and inspection agency personnel, City's field representative, Architect/Engineer. Provide access to Work areas and off-site fabrication and assembly locations, including during weekends and after normal work hours.

4. Provide incidental labor and facilities to provide safe access to Work to be tested and inspected, to obtain and handle samples at the Project site or at source of products to be tested, and to store and cure test samples.

5. Provide, at least 15 calendar days in advance of first test or inspection of each type, a schedule of tests or inspections indicating types of tests or inspections and their scheduled dates.

6. Provide 24 hours advance notice to the Project Manager, Architect/Engineer of each test and inspection, as directed.

a. When tests or inspections cannot be performed after such notice , reimburse City for Testing Laboratory personnel and travel expenses incurred due to Contractor's negligence.

1.09 ADDITIONAL TESTING AND INSPECTION

A. If initial tests or inspections made by the Testing Laboratory reveal that materials do not comply with Contract Documents, or if City has reasonable doubt that materials do not comply with Contract Documents, additional tests and inspections shall be made as directed.

1. If additional tests and inspections establish that materials comply with Contract Documents, all costs for such tests and inspections shall be paid by City.

2. If additional tests and inspections establish that materials do not comply with Contract Documents, all costs of such tests and inspections shall be paid by the contractor.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 5200

TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. General Conditions Document 00 7200

B. Supplemental General Conditions Document 00 7201

1.02 SUMMARY

A. This section describes the temporary facilities required for the Project site. The Project site shall be maintained by Contractor as set forth in this section unless otherwise added to or superseded by the requirements of Document 00 7200 (General Conditions).

1.03 TEMPORARY FACILITIES

A. Contractor shall obtain permits for, install and maintain in safe condition, whatever scaffolds, hoisting equipment, barricades, walkways, or other temporary structures which may be required to accomplish the work on the Project. Such structures shall be adequate for the intended use and capable of safely accepting all loads that may be imposed upon them. They shall be installed and maintained in accordance with all applicable State and local codes and regulations.

B. Contractor shall provide and maintain temporary heat from an approved source whenever in the course of the Work it may become necessary for curing and drying of materials, or to warm spaces as may be required for the installation of materials or finishes.

C. Contractor shall provide and maintain any and all facilities that may be required for dewatering in order that work may proceed on the Project. If it is necessary for dewatering to occur continually, Contractor shall have on hand whatever spare parts or equipment that may be required to prevent interruption of dewatering.

D. Contractor shall provide and maintain all utility services necessary to perform the work under this Contract.

E. Materials, tools, accessories, etc., shall be stored only where directed by City. Storage area shall be kept neat and clean. Security of stored items shall be Contractor's responsibility.

F. Flammable materials stored on site, shall be stored in a safe and secure manner per the manufacture’s direction. Extra precautions, including clear identification, shall be the responsibility of Contractor.

G. Contractor shall maintain an office at the Project site that will be his headquarters for the Project. Any communications delivered to this office shall be considered as delivered to Contractor. Location and size of office shall be such that it will adequately serve the needs of Contractor's superintendent and assistants in the performance of their duties.

H. Contractor shall promptly remove all such temporary facilities when they are no longer needed for the work or for completion of the Project, mutually agreed upon by Contractor and City.

I. Contractor shall safe-off building prior to demolition.

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1.04 SIGNS

A. No signs may be displayed on or about the City's property (except those required by law) without the City's specific approval; the size, content, and location to be as specified by the City.

1.05 USE OF ROADWAYS AND WALKWAYS

A. Contractor shall never block or interfere with use of any existing roadway, walkway or other facility for vehicular, bicycle, or pedestrian traffic, from any party entitled to use it. Wherever and whenever such interference becomes necessary for the proper and convenient performance of the Work, Contractor shall, before beginning the interference, notify City and post signs at least 72 hours in advance of such interference, and provide a satisfactory PROWAG compliant diversion or detour, including temporary bridge if necessary, or other proper facility for traffic to pass around or over the interference. Contractor shall maintain the detour in a safe and satisfactory condition as long as the interference continues, all without extra payment unless otherwise expressly stipulated in the Specifications.

B. Contractor shall at all times comply with any and all requirements applying to the work under the transportation, circulation and parking mitigation measures, truck and construction access plan.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 5526

TRAFFIC CONTROL

Contractor shall provide traffic control throughout the project as needed for the various traffic situations and street configurations in full conformance with the latest "California Manual on Uniform Traffic Control Devices and the Federal Highway Administration (FHWA) Manual of Uniform Traffic Control Devices (MUTCD) latest edition, as amended for use in California)" herein after referred to as Traffic Control Manual. The Traffic Control Manual may be obtained online at https://dot.ca.gov/programs/safety-programs/camutcd/camutcd-files

As required, the Contractor shall submit a PROWAG compliant Traffic Control Plan (TCP) to the City of Berkeley's Transportation Division or the California Department of Transportation (Caltrans) for review and acceptance. Contractor shall make all reasonable efforts to divert pedestrians and cyclists around the construction rather than closing walkways and bikeways and implementing walking and biking detours following the City's Pedestrian, Bicycle, and Bus Facility Accommodation in Construction Zones Guidelines. Contractor is responsible for properly setting up and maintaining all signage, striping, barriers, lighting, scaffolding, flagging operations, and any other temporary traffic control devices as necessary as detailed in approved TCPs.

Construction area signs and temporary traffic control devices shall be furnished, installed, maintained and removed by the Contractor. Traffic signage, e.g., warning signs and detour signs, may be required for this project. Contractor shall be responsible for placing all barricades for perimeter street closures as required. Per Section 501.10 – Traffic Control of the General Provisions, at main entry and exit points of each work location, the Contractor shall provide a 30" x 30" sign advising the public of the anticipated period of time that traffic delays may be anticipated. This sign will also include name and telephone number of the Contractor along with starting and completion dates of the contract. Sign will be erected 7 calendar days in advance of any work.

Construction work requiring traffic control on San Pablo Avenue (State Route 123) or Ashby Avenue (State Route 13) will require an encroachment permit from Caltrans. Contractor is soley responsible for obtaining and abiding by any necessary encroachment permits. The permit fees and other associated costs to obtain the required permits from the State of California shall be included in the cost bid for this item. Contractor shall be responsible for providing traffic control plan for encroachment permit to and obtaining approval of said traffic control plan from State of California. Contractor shall be responsible for all notification of work to, application for and obtaining work authorization number from Caltrans. Any damages arising from work related to encroachment permit shall be the responsibility of the Contractor.

The Contractor shall be responsible for posting "No Parking" signs a minimum of four calendar days in advance of concrete work, paving operations, failed area, and planning work so as to comply with the City's construction notification requirement of 4 days. Cones shall not be used as barricades. "No Parking" signs may be obtained from the City at no cost to the Contractor. The "No Parking" signs shall be updated as necessary. The Contractor shall check and maintain (e.g., re-install missing signs, reposition displaced barricades, etc.) postings on a regular basis prior to start of work.

If traffic is to be detoured over a centerline or detoured in advance of the work, detour plans must be part of the submitted Traffic Control plans and approved by the City prior to starting work. Police, Fire and Public Works Department shall be notified by the contractor at least four calendar days in advance of any work which will interfere with the normal flow of vehicular or pedestrian traffic. Intersection closure may only occur if the two adjacent intersections remain open, unless otherwise approved by the City. The Contractor shall coordinate his traffic control/diversion plan with the City, a minimum of 3 weeks prior to starting work, to assure that traffic is diverted in a safe and convenient manner.

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Truck routes shall be approved by the City prior to start of work.

Truck traffic is not allowed on Marin Avenue within the City of Albany. Personal vehicles of the Contractor's employees shall not be parked within the area of work.

A minimum of one (paved) traffic lane, not less than 12 ft. wide, shall remain open for use by public traffic during construction operations. When construction operations are not actively in progress, not less than two such lanes shall be open to public traffic. The Contractor may be allowed to close residential streets if approved in writing in advance by the City. No work that interferes with public traffic shall be performed between 6:00 p.m. and 7:00 a.m.

Start of work shall be no earlier than 7:00 a.m. No work process, including starting, warm up, and delivery of equipment, shall be done outside of work hours. The use of vehicle horns to alert residents to move their vehicles out of the construction zone is not permitted. The Contractor should attempt to locate vehicle owners by knocking on doors.

The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays and designated legal holidays, and when construction operations are not actively in progress, unless specified otherwise.

Minor deviations from the requirements of this section concerning hours of work may be permitted upon the written request of the Contractor, if in the opinion of the City, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the City provides written approval.

The traffic control system shall consist of closing traffic lanes in accordance with the Traffic Control Manual. Signs and other devices for the traffic control system shall conform to the Traffic Control Manual.

If any component in the traffic control system is damaged, displaced or ceases to operate or function as specified, from any cause during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Lane closures may be made for work periods only. At the end of each work period, all components of the traffic control system shall be removed from the traveled way, shoulder and auxiliary lanes. If the Contractor so elects, said components may be stored at selected central locations approved by the City within the limits of the public right-of-way.

Sufficient barricades and flashing lights shall also placed to supplement all traffic signs used to divert and control traffic. Signs and barricades shall be checked periodically every day and replaced or repaired as necessary. Any hazardous conditions shall be immediately eliminated.

The Contractor, at the end of each day, shall provide ADA compliant pedestrian and vehicle crossings at all street intersections. If the project is left open overnight, it shall be graded in such a way that pedestrians and vehicles can safely pass through the project. Temporary concrete, asphalt, or wood ramps shall be installed and maintained at all locations where existing ramps have been temporarily removed.

Cleanliness is extremely important. Dust producing conditions shall be eliminated as soon as they are created.

If Contractor violates any of these provisions, a fine of $1,000 will be assessed for the first violation, $5,000 for the second and $10,000 for the third and further subsequent violations**.**

ACCESS AND EGRESS

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The Contractor shall endeavor to cooperate with all business owners and residents occupying properties fronting on the streets in the matter of access and egress. **Contractor shall maintain a clear and accessible pedestrian corridor.**

Where a business property has more than two vehicular paths of access, one path, 10 feet in width, shall remain open during all business hours, unless accepted by the City.

LANE CLOSURES

No lane closures shall be permitted on the following streets Monday through Friday between 7:00 A.M. – 9:00 A.M. and 4:00 P.M. – 6:00 P.M., and Saturdays between 10:00 A.M. – 2:00 P.M., unless approved in advance by the City, if it can be explained why such closure cannot reasonably be avoided. On Saturdays when UC football games are scheduled all construction-related lane closures along these corridors must be reopened at least 4 hours before the start of the game and remain open for 2 hours after the conclusion of the game.

Major Streets:

- University Avenue
- San Pablo Avenue
- Shattuck Avenue
- Telegraph Avenue
- Sacramento Street
- Martin Luther King Jr. Way
- Ashby Avenue
- College Avenue
- Gilman Avenue
- Adeline Street

Notwithstanding the above, the City reserves the right to review and comment on each individual traffic control plan based on its own merits.

Note: Routine maintenance, inconvenience to construction method or schedule, or adverse impacts on cost of work will generally not be accepted as grounds for exceptions.

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 5700

TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. General Conditions Document 00 7200

B. Supplemental General Conditions Document 00 7201

1.02 SUMMARY

A. This section describes the temporary controls required for the Project site. The Project site shall be maintained by Contractor as set forth in this section unless otherwise added to or superseded by the requirements of Document 00 7200 (General Conditions).

1.03 TEMPORARY CONTROLS

A. Contractor shall obtain permits for, install and maintain in safe condition, whatever scaffolds, equipment, shoring, barricades, walkways, ramps, striping, or other temporary structures which may be required to accomplish the Work. Contractor shall maintain accessible and safe path of travel of pedestrians, cyclists, and motorists using the public ROW adjacent to the job site. Such items shall be adequate for the intended use and shall be installed and maintained in accordance with all applicable National (ADA and PROWAG), State and local codes and regulations.

B. The Contractor shall perform a pre-construction audio/video tape survey and provide supplemental photographic documentation to adequately document the condition of existing improvements. It is the responsibility of the Contractor to adequately document the condition of existing improvements and the Contractor may be held liable for any damage or condition whose pre-existence he/she is unable to document. No additional compensation for such tape survey and still photographs will be allowed.

C. Upon notification of the City, the Contractor shall correct any deficiencies of the temporary controls within 72 hours. The City may request City crews or contract with another contractor to perform the necessary work and repairs if the deficiencies have not been corrected after the 72-hour notification. The Contractor shall pay the cost of the work performed by the City crews or other contractor plus an additional seventy percent (70%) surcharge by deduction from payment due on the contract.

D. The Contractor shall begin cleanup operation at least one hour before the end of each day's work, clean all paved portions of the project and paved streets leading from the project that have dust-producing materials or debris deposited upon them. The work areas shall be swept clean at the end of each day's work and at other times when directed by the City.

1.04 DUST AND DEBRIS CONTROLS

A. The Contractor shall be responsible for controlling dust in the air and rocks, debris, mud or dirt which are scattered as a result of his operations on the job. The Contractor shall be responsible for cleaning all mud, rock, dust, dirt, and debris-producing materials that originate in the project area and are deposited on other public or private property by truck tires, spillages, or by other means. The Contractor shall have suitable and adequate street cleaning equipment on the project site at all times.

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B. The Contractor shall endeavor, whenever possible, to restrict the use of water to control dust for his convenience in order to conserve water during drought situations or mandated rationing required by the Water Utility Company. Whenever flushing of streets or any other work is necessary, the Contractor shall provide filter materials at the catch basin to retain any debris and dirt flowing into the City's drainage system.

C. The cost of the above work, including the providing of barricades, water and other materials, labor, and equipment shall be at the sole cost and expense of the Contractor.

D. The City may determine that an emergency exists when dust, rocks, debris, mud, or dirt are scattered in the public right of way or in the private properties as a result of Contractor's activities and/or deterioration of such conditions due to rain. The emergency conditions may also be declared when traffic or the Contractor's equipment travelling through a job causes dust to fly or rocks, debris, mud, or dirt to be scattered. Similar emergency conditions may be determined by the City's Representative if the storage of materials, tools, or any other equipment related to the project, in the public rights of way, is causing any obstruction or blocks access to the neighboring properties and/or dangerously placed without proper barricades and lights and/or backfill stockpiles or debris washing away into the street gutter and catch basins.

1.05 NOISE CONTROL

A. Equipment which operates with noise levels in excess of 85 decibels measured on the A-weighted scale defined in ANSI S-1.4 at a distance of 100 feet from the equipment is prohibited.

B. All equipment and impact tools shall have mufflers to comply with specified noise control.

C. Use of unusually noisy equipment, such as jackhammers and roto-hammers is prohibited.

D. Exterior construction work is limited to the hours of 8 AM to 5 PM.

E. Cooperate with City if an ongoing construction activity becomes objectionable by its longevity, or by overlapping into an activity started later by the City. It is understood and agreed that both parties shall cooperate so that neither will be unduly inconvenienced by this requirement.

F. Comply by requirements specified in the various sections.

1.06 CLEAN UP

A. The Contractor shall not allow the site of the work to become littered with trash, rubbish, and waste material but shall maintain the same in a neat and orderly condition throughout the construction period. Cleanup, debris and dust control shall be a daily maintenance requirement. The City shall have the right to determine what is or is not trash, rubbish or waste material and the place and manner of disposal.

B. The Contractor shall maintain a neat appearance to the work. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from surfaces to prevent marring or other damage.

C. Broken concrete debris, and unsuitable excavated native soil during construction shall be disposed of concurrently with its removal. If stockpiling is necessary all debris shall be placed in trash bins daily and shall be removed or disposed of weekly. Any waste shall not be buried on the site or disposed of into storm drains, sanitary sewers, streams, or waterways.

D. Forms or falsework that are to be re-used shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be re-used shall be disposed of concurrently with their removal.

E. Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work

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involved and no additional compensation will be allowed therefore.

F. Sidewalks, street area, parking strips, and driveway approaches must be kept reasonably clean at all times during construction and be completely and carefully cleaned after the work has progressed beyond the immediate vicinity to the satisfaction of the City's Representative. Reasonable cleanup is defined as no dust, rock, or mud on any portion of the public right-of-way or the private properties as a result of the Contractor's work.

1.07 EMERGENCY CLEAN UP WORK

A. In any case in which the Contractor fails to satisfactorily complete the cleanup work described in this section, the City may determine that an emergency exists. In the event an emergency is determined by the City, the Contractor will be notified by the City to correct the violation immediately. The Contractor shall immediately make available manual labor or mechanical equipment capable of handling the cleaning process. During such an emergency, City forces may be called upon to complete the cleanup work, or the City may contract for the cleanup work. All construction work shall be shut down during this cleanup work by the City/contract forces. The City may shut down further construction work until the violations are corrected to the satisfaction of the City. The cost of the work performed by City/Contract forces plus an additional 70% surcharge shall be paid by the Contractor by deduction from payment due him on the contract. No compensation shall be given to the Contractor for stoppage of work.

B. Such action by the City, however, shall not relieve the Contractor of his responsibility for any damages which may occur before, during or after such action has been taken by the City, and shall place no liability upon the City.

1.08 FINAL CLEAN UP

A. Upon completion of the work, and before acceptance and final payment, the Contractor shall clean the project areas and remove all surplus and discarded materials, falsework, rubbish and temporary structures and restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and shall leave the improvement in a neat and presentable condition throughout the entire length of the improvement under contract to the satisfaction of the City. If the Conditions as noted above are not corrected immediately, the City may declare an emergency and take necessary action in accordance with the Emergency Cleanup Work section of this specification.

1.09 CLEAN UP AND SAFETY

A. If the Contractor stockpiles granular material in the gutter, he must provide a minimum 4" pipe below the stockpile in the gutter to accommodate typical gutter flow. Any lumber or stockpiles on the site, not ready for immediate use, shall be free of nails or torn edges that may cause injury. Any materials stockpiled in the street and any open excavation shall have barricades equipped with operative automatic flashers placed at each end. The Contractor shall maintain a neat appearance at all times. All material removed shall be disposed of off-site in a legal manner.

B. The Contractor must take special precautions to protect the public and City employees from bodily and property damage resulting from the work. Contractor must exercise all necessary precautions to ensure a safe execution of the work.

1.10 CREEK PROTECTION [OPTIONAL]

A. The Contractor shall be responsible for and conduct all aspects of the work within the requirements of BMC Chapter 17.08 – PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES (Creek Ordinance), and any other creek protection requirements by other agencies.

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B. Portions of Work involving a creek channel may not be permitted between October 15 through April 15 or other dates as may be stipulated in applicable permits.

C. Any work between creek banks shall be conducted to not create conditions, which will allow erosion, and shall be fully restored to at least the same erosion resistant condition as before the Work.

D. Complying with the requirements of creek protection shall include but not be limited to scheduling the Work around any time periods prohibiting work within creek limits, installing erosion control measures and employing appropriate BMPs for controlling erosion, monitoring, updating and modifying BMPs to meet the requirements for changing site conditions to comply with erosion control and creek protection, replanting creek banks to reestablish erosion resistance and bank stability.

1.11 PROJECT SITE MAINTENANCE

A. Water Pollution Control. The intent of these requirements is to enforce federal, state, and other local agencies' regulations that prohibit storm water pollution at construction sites. Storm drains discharge directly to creeks and the Bay without treatment, and discharge of pollutants (i.e., any substance, material, or waste other than uncontaminated storm water) into the storm drain system is strictly prohibited.

B. The term "storm drain system" shall include storm water conduits, storm drain inlets and other storm drain structures, street gutters, channels, watercourses, creeks, lakes, and the San Francisco Bay.

C. For the purpose of eliminating storm water pollution, the Contractor shall implement effective control measures at construction sites. There are several publications that provide guidance on selecting and implementing effective control measures known as Best Management Practices (BMPs). BMPs include schedules of activities, prohibition of specific practices, general good housekeeping practices, operational practices, pollution prevention practices, maintenance procedures and other management procedures to prevent the discharge of pollutants directly or indirectly to the storm drain system. BMPs also include the construction of some facilities that may be required to prevent, control, and abate storm water pollution. The reference publications are as follows:

1. California Storm Water Best Management Practice Handbook - Industrial/Commercial
2. California Storm Water Best Management Practice Handbook - Construction Activity

These handbooks may be purchased from Blue Print Service (BPS), 1700 Jefferson St, Oakland, CA 94612.

3. Manual of Standards for Erosion and Sediment Control Measures by the Association of Bay Area Governments (ABAG).
4. Heavy Equipment Operation, Fresh Concrete & Mortar Application, Painting & Application of Solvents & Adhesives, Roadwork & Paving Activities, General Construction & Site Supervision, Parking Lots and Finish the Pour Right

These brochures are available at the Engineering Division, 1947 Center Street, 4th Floor, Berkeley, CA 94704.

1.12 STORMWATER POLLUTION CONTROL

A. Stormwater Pollution Control. The intent of these requirements is to comply with federal, state, and other local agencies' regulations that prohibit non-stormwater discharges to storm drain sewer systems, creeks and San Francisco Bay. Storm drain sewers discharge directly to creeks and the Bay without treatment, and discharge of pollutants (any substance, material, or waste other than rainfall derived stormwater) into the storm

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drain sewer system is strictly prohibited. Further, the Contractor is informed that Federally Endangered species have been identified in creeks within the City Limits. The storm drain sewer system, pollutants, and other relevant information are further defined in Berkeley Municipal Code (BMC) Chapter 17.20 DISCHARGE OF NON-STORMWATER INTO CITY'S STORM DRAIN SYSTEM – REDUCTION OF STORMWATER POLLUTION, and the City's stormwater NPDES (National Pollutant Discharge Elimination System) Permit No. CAS612008. These documents are available upon request.

B. Best Management Practices (BMP) and Source Control. The contractor shall use appropriate BMPs and source control techniques on the site(s) at all times, regardless of time of year or rainfall conditions, in order to prohibit the discharge of non-stormwater discharges into the storm drain sewer system, creeks, and Bay. BMPs shall be in conformance with the California Stormwater Quality Association's "Stormwater Best Management Practice Handbook", current edition.

C. Water Pollution Control Plan (WPCP) and Coordinator. The Contractor shall prepare, submit for favorable review by the City, and implement a WPCP which shall contain at a minimum the items included in this section.

1. The Contractor shall designate an individual (to be approved by the City) available at all times of sufficient authority to halt work and implement BMPs and source control measures for the Contractor and all sub-contractors, suppliers, and other personnel that may be at the construction site(s), to prevent non-stormwater discharges from the construction site(s). This individual shall be the contact person for all matters of the project regarding non-stormwater discharges.
2. The WPCP shall show the locations of all storm drains, storm drain pipes, creeks, creek culverts, points of entry (catch basins, inlets, outlets), and other features through which stormwater flows.
3. The WPCP shall identify each point of entry and show how each entry point will be protected. The WPCP shall include a protocol for allowing drainage to flow properly during rainfall events WHILE STILL PREVENTING non-stormwater discharges from entering the storm drains, creeks, and Bay.
4. The WPCP shall include descriptions and sketches of all BMPs, show locations and describe protocols for implementing and maintaining the following BMPs for but not limited to material storage, dewatering operations, bypass pumping, saw-cutting operations, pavement operations, concrete operations, grading and excavation operations, spill prevention and control, vehicle and equipment cleaning, vehicle and equipment operation and maintenance, litter control, dust control, pavement cleaning, and construction waste management.
5. All employees, subcontractors, suppliers, and any others involved with the construction site(s) shall be trained in implementing, the importance of, and purpose of the WPCP.
6. The WPCP shall be updated to meet changing stages of the construction site(s). Work shall not begin without the City completing its review and finding no exceptions taken on the WPCP and finding at City's sole discretion that the WPCP meets the intent and goals of the project.
7. In addition, the Contractor shall observe the following guidelines:
    a. Paving during wet weather:
        i. No paving while it is raining.
        ii. No paving of the top lift of asphalt concrete (AC) on any day that experiences ¼" of rain in a twenty-four period.

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iii. No paving of bottom lift if previous seventy-two (72) hour period experienced more than ½" of rain, unless directed by the City Engineer or his designee.

b. Store materials as required by BMPs.
c. Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc., and while sawcutting, grooving, and grinding, etc.
d. Place drip pans or absorbent materials under equipment when not in use.
e. During wet weather, store paving equipment indoors or cover with tarp or other waterproof covering.
f. Sweep site daily to prevent sand, gravel or excess asphalt from entering or being transported by rain into the storm drain system.
g. Keep ample supplies of drip pans or absorbent materials on-site.
h. If paving involves Portland cement concrete:
    i. Do not wash out concrete trucks into storm drains, open ditches, streets, streams, etc. The Contractor shall prevent the discharge of pollutants from concrete operations by using measures to prevent run-on and run-off pollution, properly disposing of wastes, and by implementing the following BMP's:
        a. Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.
        b. Avoid mixing excess amounts of Portland cement materials. Dispose of any excess materials properly.
        c. Whenever possible, perform washout of concrete trucks off-site where discharge is controlled and not permitted to discharge to the storm drain system.
    ii. For on-site washout:
        a. Locate washout area at least fifty (50) feet from storm drains, open ditches or other water bodies, preferably in a dirt area.
        b. Confine run-off from this area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.
    iii. Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.
    iv. Dispose of waste water from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the waste water and once the waste water has infiltrated, any remaining residue must be removed.
    v. Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in trash container.

D. Training. Contractor is responsible for ensuring all personnel, laborers, sub-contractors, suppliers, and any other personnel that are involved with the Work are trained in the importance of preventing non-stormwater discharges. Each worker shall be trained or certified as being trained before being allowed to work. Before any work begins, the Contractor shall submit and certify under penalty of perjury a list of all workers who have been trained on the importance of pollution prevention, BMP and source control operation and maintenance, and recognize the authority of the City to stop the work in the event of a non-stormwater discharge. The training shall include as a minimum, review of the BMP and WPCP, and all BMPs (including BMP operation and maintenance) that are planned for the Work.

E. Enforcement. The City has the authority through this contract and appropriate sections of the BMC to enforce any portions of this section. City enforcement may include but is not limited to: citations, orders to abate, bills for City cleanup costs and administration, civil suits, and criminal charges and enforcement. Enforcement action by the City does not void or suspend any enforcement actions by other agencies, and actions by the City and

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other agencies shall be cumulative.

F. Submittals and Contract Time. Contractor is cautioned and advised to have appropriately trained staff with any applicable certifications prepare all submittals for Storm Water Pollution Controls including the WPCP, and have appropriately trained staff available to meet with City staff to review the submittals. It is considered reasonable that the Contractor shall make a complete and acceptable submittal at least by the second submission. The City reserves the right to deduct monies from payments due Contractor to cover additional costs of City's and Architect/Engineer's review beyond the second submission. Illegible submittals will be rejected and returned to the Contractor.

G. Payment. There shall be no separate pay item for complying with the provisions of this section, unless a separate pay item is provided in the bid schedule.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7329

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SUMMARY

A. Contractor shall be responsible for all cutting, fitting, and patching required to complete the work and to:

1. Make its several parts fit together properly,
2. Uncover portions of the work to provide for installation of ill-timed work,
3. Remove and replace defective work,
4. Remove and replace work not conforming to requirements of Contract Documents,
5. Provide routine penetrations of nonstructural surfaces for installation of electrical conduit, plumbing, and ductwork,
6. Remove Samples of installed work as specified for testing.

1.02 SUBMITTALS

A. Submit a written request to the Architect/Engineer two weeks in advance of executing any cutting or alteration that affects the following and is not specifically indicated on the Drawings as part of the Scope of Work:

1. Work of the City or any separate contractor,
2. The structural value or integrity of any element of the completed building,
3. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems,
4. The efficiency, operational life, maintenance, and safety of operational elements,
5. The visual qualities of sight-exposed elements.

B. The request shall include:

1. The necessity for cutting or alteration,
2. The effect on the work of the City or any separate contractor or on the structural or weatherproof integrity of the building,
3. Description of the Proposed Work:
    a. The scope of cutting, patching, alteration, or excavation,
    b. The trades who will execute the work,
    c. The products proposed to be used,
    d. The extent of refinishing to be done.
4. Alternatives to cutting and patching,
5. Cost proposal, when applicable,
6. Written permission of any separate contractor whose work will be affected.

C. Should conditions of the work or the schedule indicate a change of products from the original installation, submit a request for substitution per Section 00 6325 Substitution Request Form.

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PART 2 - PRODUCTS

2.01 MATERIALS

A. Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine existing conditions of the Project, including elements subject to damage or to movement during cutting and patching.

B. After uncovering work, examine the conditions affecting the installation of products or performance of the Work.

C. Report unsatisfactory or questionable conditions to the Project Manager in writing. Do not proceed with the work until the Project Manager has provided further instructions.

3.02 PREPARATION

A. Provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the work.

B. Provide devices and methods to protect other portions of the Project from damage.

C. Provide protection from the elements for that portion of the Project that may be exposed by cutting and patching work.

3.03 PERFORMANCE

A. Execute cutting and demolition by methods that will prevent damage to other work and will provide proper surfaces to receive installation of repairs.

B. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.

C. All plumbing, mechanical, and electrical system elements shall be concealed, unless indicated otherwise.

D. Restore work which has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.

E. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

1. For continuous surfaces, refinish to nearest intersection.

2. For an assembly, refinish the entire unit.

END OF SECTION

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Internal

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7413

PROJECT CLEANING

PART 1 - GENERAL

1.01 SUMMARY

A. Maintain Project Site, surrounding areas and public properties free from accumulations of waste, debris, and rubbish, caused by operations.

B. At completion of Work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave Project Site clean and ready for occupancy.

1.02 GENERAL

A. Conduct cleaning and disposal operation in accord with legal requirements.

1. Do not burn or bury rubbish and waste materials on Project Site.
2. Do not dispose of volatile wastes in storm or sanitary drains.

B. Hazards control:

1. Store volatile wastes in covered metal containers, and remove from premises daily.
2. Prevent accumulation of wastes which create hazardous conditions.
3. Provide adequate ventilation during use of volatile or noxious substances.

   Note: Care shall be taken that discharge of volatile or noxious exhaust shall be shielded from air intakes of hospital mechanical systems.

1.03 MATERIALS

A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

1.04 DUST CONTROL

A. Clean interior spaces prior to start of finish painting, and continue cleaning as required until painting is completed.

1.05 DURING CONSTRUCTION

A. Execute cleaning daily to ensure Project Site, City's premises, adjacent and public properties are maintained free from accumulations of waste materials and rubbish.

B. Wet down dry materials and rubbish to control dust.

C. At reasonable intervals during progress of Work, clean Project Site and public properties, and dispose of waste materials, debris and rubbish.

D. Provide on Project Site dump containers for collection of waste materials, debris and rubbish. Hospital waste containers shall not be used for construction waste.

E. Remove waste materials, debris and rubbish from City's premises and legally dispose of off City's property.

F. Vacuum clean interior areas when ready to receive finish painting, and continue vacuum cleaning on an as-needed basis until building is ready for substantial completion or

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Internal

occupancy.

G. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw materials.

H. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

1.06 FINAL CLEANING

A. Employ experienced workers, or professional cleaners for final cleaning.

B. In preparation for Substantial Completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of accessible concealed spaces.

C. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed finished surfaces; polish surfaces so designated to shine finish.

D. Repair, patch and touch up marred surfaces to specified finish, and to match adjacent surfaces.

E. Broom clean paved surfaces.

F. Keep Project clean until it is occupied by the City.

G. Clean equipment and fixtures to a sanitary condition.

H. Clean or replace, if required, filters of operating equipment.

I. Clean Debris from roofs, gutters, downspouts and drainage systems.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7419

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Salvaging and recycling nonhazardous demolition and construction waste.
2. Disposing of nonhazardous demolition and construction waste.

B. Related Sections include the following:

1. Division 01 Section "Temporary Facilities and Controls" for environmental-protection measures during construction.

1.03 DEFINITIONS

A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.04 PERFORMANCE REQUIREMENTS

A. General: Develop waste management plan that results in end-of-Project rates for a minimum salvage/recycling percent by weight of total waste generated by the Work, as required by the Berkeley Municipal Code 19.37 Berkeley Green Code.

B. Salvage/Recycle Goals: Owner's goal is to salvage and recycle as much nonhazardous demolition and construction waste as possible.

1. Demolition Waste:

a. Asphaltic concrete paving.
b. Concrete.
c. Concrete reinforcing steel.
d. Brick.
e. Concrete masonry units.

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f. Wood studs.
g. Wood joists.
h. Plywood and oriented strand board.
i. Wood paneling.
j. Wood trim.
k. Structural and miscellaneous steel.
l. Rough hardware.
m. Roofing.
n. Insulation.
o. Doors and frames.
p. Door hardware.
q. Windows.
r. Glazing.
s. Metal studs.
t. Gypsum board.
u. Acoustical tile and panels.
v. Carpet.
w. Carpet pad.
x. Demountable partitions.
y. Equipment.
z. Cabinets.
aa. Plumbing fixtures.
bb. Piping.
cc. Supports and hangers.
dd. Valves.
ee. Sprinklers.
ff. Mechanical equipment.
gg. Refrigerants.
hh. Electrical conduit.
ii. Copper wiring.
jj. Lighting fixtures.
kk. Lamps.
ll. Ballasts.
mm. Electrical devices.
nn. Switchgear and panelboards.
oo. Transformers.

2. Construction Waste:

a. Site-clearing waste.
b. Masonry and CMU.
c. Lumber.
d. Wood sheet materials.
e. Wood trim.
f. Metals.
g. Roofing.
h. Insulation.
i. Carpet and pad.
j. Gypsum board.
k. Piping.
l. Electrical conduit.
m. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
    1. Paper.
    2. Cardboard.
    3. Boxes.
    4. Plastic sheet and film.

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5. Polystyrene packaging.
6. Wood crates.
7. Plastic pails.

1.05 SUBMITTALS

A. Waste Management Plan: Submit plan within **7** days of date established for the Notice to Proceed. The City uses Green Halo Tracking. Contractor shall be responsible for tracking construction waste through Green Halo at www.berkeley.wastetracking.com .

B. See Evaluations for example of Waste Reduction Progress Reports in paragraph below.

C. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit a copy of Green Halo reporting. Include the following information:

1. Material category.
2. Generation point of waste.
3. Total quantity of waste in tons
4. Quantity of waste salvaged, both estimated and actual in tons
5. Quantity of waste recycled, both estimated and actual in tons
6. Total quantity of waste recovered (salvaged plus recycled) in tons
7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

D. Waste Reduction Calculations: Before request for Substantial Completion, submit **3** copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

E. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

F. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

G. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

H. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.06 QUALITY ASSURANCE

A. Waste Management Coordinator Qualifications: Green Building Professional. Waste management coordinator may also serve as Green Building coordinator.

B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

1.07 WASTE MANAGEMENT PLAN

A. General: Develop plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing, and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.

C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged,

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recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

D.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 PLAN IMPLEMENTATION

A. General: Implement waste management plan as approved by Construction Manager. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

1. Comply with Division 01 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.

B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.

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

1. Distribute waste management plan to all relevant sub-contractor within 3 days of submittal return.
2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
2. Comply with Division 01 Section "Temporary Facilities and Temporary Controls" for controlling dust and dirt, environmental protection, and noise control.

3.02 SALVAGING DEMOLITION WASTE

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A. Salvaged Items for Reuse in the Work:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Owner's Use:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area.
5. Protect items from damage during transport and storage.

C. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.

3.03 RECYCLING DEMOLITION AND CONSTRUCTION **WASTE, GENERAL**

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

B. Recycling Receivers and Processors: List below is provided for information only; available recycling receivers and processors include, but are not limited to, the following

The City of Berkeley Transfer Station

1201 Second Streets, Berkeley, CA

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

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

3.04 RECYCLING DEMOLITION WASTE

A. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.

B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

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C. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

1. Clean and stack undamaged, whole masonry units on wood pallets.

D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

1. Treated Wood Waste: Treated wood waste is required to be managed, stored, transported, and disposed of as hazardous waste per California State regulations. Treated wood waste is required to be transported and disposed of at a Class I hazardous waste landfill by a Hazardous Waste contractor.

E. Metals: Separate metals by type.

1. Structural Steel: Stack members according to size, type of member, and length.

2. Remove and dispose of bolts, nuts, washers, and other rough hardware.

F. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

G. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.

H. Plumbing Fixtures: Separate by type and size.

I. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.

J. Lighting Fixtures: Separate lamps by type and protect from breakage.

K. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

L. Conduit: Reduce conduit to straight lengths and store by type and size.

3.05 RECYCLING CONSTRUCTION WASTE

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.

2. Polystyrene Packaging: Separate and bag materials.

3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.

4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Site-Clearing Wastes: Chip brush, branches, and trees.

C. Wood Materials:

1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.

2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

3. Treated Wood Waste: Treated wood waste is required to be managed, stored, transported, and disposed of as hazardous waste per California State regulations. Treated wood waste is required to be transported and disposed of at a Class I hazardous waste landfill by a Hazardous Waste contractor.

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

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1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.06 DISPOSAL OF WASTE

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

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

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUMMARY

A. Section describes requirements and procedures for:

1. Project cleaning.
2. Testing of equipment and systems
3. Substantial Completion
4. Final Completion
5. Close Out
6. Warranties

1.02 SUBSTANTIAL COMPLETION

A. Removal of Temporary Construction Facilities and Project Cleaning.

1. Prior to Substantial Completion inspection: remove temporary materials, equipment, services, and construction; clean all areas affected by the Work; clean and repair damage caused by installation or use of temporary facilities; restore permanent facilities used during construction to specified condition.

B. Equipment and Systems.

1. Prior to Substantial Completion, Contractor shall start up, run for periods prescribed by City, operate, adjust and balance all manufactured equipment and Project systems, including but not limited to, mechanical, electrical, safety, fire, and controls.
2. Demonstrate that such equipment and systems conform to contract standards and manufacturer’s guarantees. Where applicable, use testing protocols specified, and if the contract is silent, then consistent with manufacturer’s recommendations and industry standards.

C. Procedure for Substantial Completion

1. When Contractor considers Work or designated portion of the Work as Substantially Complete, submit written notice to City, with list of items remaining to be completed or corrected and explanation of why such items do not prevent City’s beneficial use and occupancy of the Work for its intended purposes. Within reasonable time, City will inspect to determine status of completion.
2. Should City determine that Work is not Substantially Complete, City will promptly notify Contractor in writing, listing all defects and omissions. Contractor shall remedy deficiencies and send a second written notice of Substantial Completion. City will reinspect the Work. If deficiencies previously noted are not corrected on reinspection, then pay the cost of the reinspection.
3. When City concurs that Work is Substantially Complete, City will issue a written notice or certificate of Substantial Completion, accompanied by Contractor’s list of items to be completed or corrected as verified by City.

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4. Manufactured units, equipment and systems that require startup must have been started up and before a notice or certificate of Substantial Completion will be issued.
5. A punch list examination will be performed upon Substantial Completion. One follow-up review of punch list items for each discipline will be provided. If further Site visits are required to review punch list items due to incompleteness of the Work by Contractor, Contractor will reimburse City for costs associated with these visits.

1.03 FINAL COMPLETION

A. Requirements

1. Final Completion occurs when Work meets requirements for City's Final Acceptance.

B. Procedure

1. When Contractor considers Work is Finally Complete, submit written certification that:
   a. Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.
   b. Except for Contractor maintenance after Final Acceptance, Work has been completed in accordance with Contract Documents and deficiencies listed with Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of City, and are operative.
   c. Project Record Documents are completed and turned over to City, and Work is complete and ready for final inspection.
2. In addition to submittals required by Contract Documents, provide submittals required by governing authorities and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
3. Should City determine that Work is incomplete or Defective, City promptly will so notify Contractor, in writing, listing the incomplete or Defective items. Contractor shall promptly remedy the deficiencies and notify the City when it is ready for reinspection.

C. Final Adjustments of Accounts:

1. Submit a final statement of accounting to City, showing all adjustments to the Contract Sum and complete and execute Document 00 6530 (Agreement and Release of Claims).
2. If so required, City shall prepare a final Change Order for submittal to Contractor, showing adjustments to the Contract Sum that were not previously made into a Contract Modification.

D. Warranties

1. Execute Contractor's Submittals and assemble warranty documents, and Installation, Operation, and Maintenance Manuals, executed or supplied by Subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in 8½ inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized. Assemble in Specification Section order.
2. Submit material prior to final Application for Payment. For equipment put into use with City's permission during construction, submit within 14 calendar days after first operation. For items of Work delayed materially beyond Date of Substantial Completion, provide updated Submittal within 14 calendar days after acceptance, listing date of acceptance as start of warranty period.
3. Warranty Forms: Submit drafts to Owner for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of Contract Documents. Warranty shall be countersigned by manufacturers. Where specified, warranty shall be countersigned by Subcontractors and installers.

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4. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse requirements or interpretations of Contract Documents.
5. Term of Warranties: For materials, equipment, systems, and workmanship, warranty period shall be one year minimum from date of Final Completion of entire Work except where:
    a. Detailed Specifications for certain materials, equipment or systems require longer warranty periods.
    b. Materials, equipment or systems are put into beneficial use of City prior to Final Completion as agreed to in writing by City.

E. Warranty of Title:

1. No material, supplies, or equipment for Work under Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or 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 improvements and appurtenances constructed or placed thereon by Contractor, to City free from any claim, liens, security interest, or charges, and further agrees that neither Contractor nor any person, firm, or corporation furnishing any materials or labor for any Work covered by Contract shall have right to lien upon premises or improvement or appurtenances thereon. Nothing contained in this paragraph, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Contractor for their protection or any rights under law permitting persons to look to funds due Contractor in hands of City.

F. Turn-In. Contract Documents will not be closed out and final payment will not be made until all keys issued to Contractor during prosecution of Work and letters from property owners, pursuant to Contract Documents, are turned in to City.

G. Release of Claims. Contract Documents will not be closed out and final payment will not be due or made until Document 00 6530 (Agreement and Release of Claims) is completed and executed by Contractor and City.

H. Fire Inspection Coordination. Coordinate fire inspection and secure sufficient notice to City to permit convenient scheduling (if applicable).

I. Building Inspection Coordination. Coordinate with City a final inspection for the purpose of obtaining an occupancy certificate (if applicable).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7800

CLOSEOUT SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

A. This section specifies administrative and procedural requirements for Project Record Documents.

B. Project Record Documents required include:

1. Marked-up copies of Contract Drawings
2. Marked-up copies of Shop Drawings
3. Newly prepared Drawings
4. Marked-up copies of Specifications, Addenda and Change Orders
5. Marked-up Project Data submittals
6. Record Samples
7. Field records for variable and concealed conditions
8. Record information on Work that is recorded only schematically

C. Specific Project Record Documents requirements that expand requirements of this Section are included in the individual Sections of Divisions 1 through 33.

D. General Project closeout requirements are included in Section 01 7700, "Contract Closeout."

E. Maintenance of Documents and Samples:

1. Store Project Record Documents and samples in the field office apart from Contract Documents used for construction.
2. Do not permit Project Record Documents to be used for construction purposes.
3. Maintain Project Record Documents in good order, and in a clean, dry, legible condition.
4. Make documents and samples available at all times for inspection by Architect and Project Manager.

F. City will provide one set of sepias and one blueline set of the construction drawings and one project manual for the Contractor's use and copying during construction.

1.02 PROJECT RECORD DRAWINGS

A. Mark-up Procedure: During the construction period, maintain a set of blueline or blackline prints of Contract Drawings and Shop Drawings for Project Record Document purposes. Label each document (on first sheet or page) "PROJECT RECORD" in 2 in. high printed letters. Keep record documents current. Note: A reference by number to a Change Order, RFI, RFQ, Field Order or other such document is not acceptable as sufficient record information on any record document. Do not permanently conceal any Work until required information has been recorded.

1. Mark these Drawings to indicate the actual installation where the installation varies appreciably from the installation shown originally. Give particular attention to

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information on concealed elements which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings
b. Revisions to details shown on the Drawings
c. Depths of various elements of foundation in relation to main floor level or survey datum.
d. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
e. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
f. Establish locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, and similar items.
g. Provide actual numbering of each electrical circuit.
h. Field changes of dimension and detail.
i. Revisions to routing of piping and conduits
j. Revisions to electrical circuitry
k. Actual equipment locations
l. Duct size and routing
m. Changes made by Change Order
n. Details not on original Contract Drawings

2. Mark completely and accurately Project Record Drawing prints of Contract Drawings or Shop Drawings, whichever is the most capable of showing actual physical conditions. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.

3. Mark Project Record Drawing sets with red erasable colored pencil; use other colors to distinguish between changes for different categories of the Work at the same location.

4. Mark important additional information which was either shown schematically or omitted from original Drawings.

5. Note construction change directive numbers; alternate numbers; Change Order numbers and similar identification.

6. Responsibility for Mark-up: Where feasible, the individual or entity who obtained Project Record Drawing data, whether the individual or entity is the installer, subcontractor, or similar entity, is required to prepare the mark-up on Project Record Drawings.

a. Accurately record information in an understandable and legible drawing technique.
b. Record data as soon as possible after it has been obtained. In the case of concealed installations, record and check the mark-up prior to concealment.

B. Preparation of Transparencies: Immediately prior to inspection for Certification of Substantial Completion, review completed marked-up Project Record Drawings with the Project Manager**]**. When authorized, prepare a full set of correct transparencies of Contract Drawings and Shop Drawings.

1. Incorporate changes and additional information previously marked on print sets. Erase, redraw, and add details and notations where applicable. Identify and date each Drawing; include the printed designation "PROJECT RECORD DRAWINGS" in a prominent location on each Drawing.

2. Refer instances of uncertainty to the Project Manager for resolution.

3. Review of Transparencies: Before copying and distributing, submit corrected

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transparencies and the original marked-up prints to the Project Manager and Architect/Engineer for review.

a. Transparencies and the original marked-up prints will be returned to the Contractor for organizing into sets, printing, binding, and final submittal.

4. Copies and Distribution: After completing the preparation of transparency Project Record Drawings, print three blue-line or black-line prints of each Drawing, whether or not changes and additional information were recorded. Organize the copies into manageable sets. Bind each set with durable paper cover sheets, with appropriate identification, including titles, dates and other information on cover sheets.

a. Organize and bind original marked-up set of prints that were maintained during the construction period in the same manner.
b. Organize Project Record Drawings transparencies into sets matching the print sets. Place these sets in durable tube-type drawing containers with end caps. Mark the end cap of each container with suitable identification.

C. Distribution of Marked up Drawings and Transparencies

1. Submit the marked-up Project Record Drawings set, pdfs, transparencies, and five copy sets to the Project Manager for City's records.

D. Shop Drawings and Samples: Maintain as record documents; legibly annotate Shop Drawings and Samples to record changes made after review.

E. In addition to requirements of this Section, comply with supplemental requirements of Divisions 21 and 28 and Division 33.

1. Divisions 21 through 28 and Division33 of the specifications require the preparation of large scale, detailed Layout Drawings of the work of those divisions. These Layout Drawings are not shop drawings as defined by the General Conditions, but together with shop drawing or Layout Drawings of all other affected sections are used check, coordinate and integrate the work of the various sections

2. Include these Layout Drawings as part of the As Built Documents.

F. Delete Architect/Engineer title block and seal from documents.

G. As-Built Documents are subject to review and acceptance by the City and Architect/Engineer.

H. Submit documents to Project Manager with final Application for payment.

1.03 PROJECT RECORD SPECIFICATIONS

A. During the construction period, maintain one copy of the Project Specifications, including addenda and modifications issued, for Project Record Document purposes.

1. Mark the Project Record Specifications to indicate the actual installation where the installation varies substantially from that indicated in Specifications and Modifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, change order work, and information on concealed installation that would be difficult to identify or measure and record later.

a. In each Specification Section where products, materials or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
b. Record the name of the manufacturer, catalog number, supplier and installer, and other information necessary to provide a record of selections made and to document coordination with Project Record Product Data submittals and maintenance manuals.

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c. Note related Project Record Product Data, where applicable, for each principal product specified, indicate whether Project Record Product Data has been submitted in maintenance manual instead of submitted as Project Record Product Data.

2. Upon completion of mark-up, submit Project Record Specifications to the Project Manager for City's records.

1.04 PROJECT RECORD PRODUCT DATA

A. During the construction period, maintain one copy of each Project Record Product Data submittal for Project Record Document purposes.

1. Mark Project Record Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Project Record Product Data submitted. Include significant changes in the product delivered to the site, and changes in manufacturer's instructions and recommendations for installation.

2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

3. Note related Change Orders and mark-up of Project Record Drawings, where applicable.

4. Upon completion of mark-up, submit a complete set of Project Record Product Data to the Project Manager for City's records.

5. Where Project Record Product Data is required as part of maintenance manuals, submit marked-up Project Record Product Data as an insert in the manual, instead of submittal as Project Record Product Data.

6. Each prime Contractor is responsible for mark-up and submittal of record Project Record Product Data for its own Work.

B. Material, Equipment and Finish Data

1. Provide data for primary materials, equipment and finishes as required under each specification section.

2. Submit two sets prior to final inspection, bound in 8-1/2 inches by 11 inches three-ring binders with durable plastic covers; provide typewritten table of contents for each volume.

3. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:

a. Trade names.
b. Model or type numbers.
c. Assembly diagrams.
d. Operating instructions.
e. Cleaning instructions.
f. Maintenance instructions.
g. Recommended spare parts.
h. Product data.

1.05 MISCELLANEOUS PROJECT RECORD SUBMITTALS

A. Refer to other Specification Sections for miscellaneous record keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to the Project Manager for City's records. Categories of requirements resulting in miscellaneous records include, but are not limited to the following:

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1. Field records on excavations and foundations
2. Field records on underground construction and similar work
3. Survey showing locations and elevations of underground lines
4. Invert elevations of drainage piping
5. Surveys establishing building lines and levels
6. Authorized measurements utilizing unit prices or allowances
7. Records of plant treatment
8. Ambient and substrate condition tests
9. Certifications received in lieu of labels on bulk products
10. Batch mixing and bulk delivery records
11. Testing and qualification of tradespersons
12. Documented qualification of installation firms
13. Load and performance testing
14. Inspections and certifications by governing authorities
15. Leakage and water-penetration tests
16. Fire resistance and flame spread test results
17. Final inspection and correction procedures

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 RECORDING

A. Post changes and modifications to the Documents as they occur. Do not wait until the end of the Project. City may review Project Record Documents prior to each progress payment to see that the required information is being properly and faithfully recorded to assure compliance with this requirement. If Contractor has not complied with this requirement, the progress payment will be withheld until the Record Documents have been brought up to date.

3.02 SUBMITTAL

A. At completion of Project, deliver Record Documents to Project Manager.

B. Accompany submittal with transmittal letter containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Number and title of each record documents
5. Certification that each document as submitted is complete and accurate, and signature of Contractor, or his authorized representative.

END OF SECTION

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SECTION 01 73 29
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.

B. Requirements for alterations work.

C. Cutting and patching.

D. Cleaning and protection.

E. ACT ceiling tiles and suspended grid.

1.02 RELATED REQUIREMENTS

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

B. Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse to be coordinated with the City of Berkeley.

C. Section 02 41 13 – Selective Demolition: Demolition of portions of existing building as indicated.

D. Reference Standard: NFPA 241 – Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2019.

1.03 SUMMARY

A. Contractor shall be responsible for all cutting, fitting, and patching required to complete the work and to:

1. Make its several parts fit together properly,
2. Uncover portions of the work to provide for installation of ill-timed work,
3. Remove and replace defective work,
4. Remove and replace work not conforming to requirements of Contract Documents,
5. Provide routine penetrations of nonstructural surfaces for installation of electrical conduit, plumbing, and ductwork,
6. Remove Samples of installed work as specified for testing.
7. Make alterations to the existing ACT ceiling systems as required for new work.

1.04 SUBMITTALS

A. Submit a written request to the Architect/Owner two weeks in advance of executing any cutting or alteration that affects the following and is not specifically indicated on the Drawings as part of the Scope of Work:

1. Work of the Owner or any separate contractor,
2. The structural value or integrity of any element of the completed building,
3. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems,
4. The efficiency, operational life, maintenance, and safety of operational elements,
5. The visual qualities of sight-exposed elements.

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B. The request shall include:

1. The necessity for cutting or alteration,
2. The effect on the work of the Owner or any separate contractor or on the structural or weatherproof integrity of the building,
3. Description of the Proposed Work:
    a. The scope of cutting, patching, alteration, or excavation,
    b. The trades who will execute the work,
    c. The products proposed to be used,
    d. The extent of refinishing to be done.
4. Alternatives to cutting and patching,
5. Cost proposal, when applicable,
6. Written permission of any separate contractor whose work will be affected.

C. Should conditions of the work or the schedule indicate a change of products from the original installation, submit a request for substitution per Section 00 6325 Substitution Request Form.

1.05 PROJECT CONDITIONS

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

C. Provide dust-proof enclosures to prevent entry of dust generated outdoors.

D. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.

E. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

F. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.

G. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.

H. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

I. The building and building floors where work will proceed are occupied and will continue to be occupied during the work. Coordinate access and work procedures with the City of Berkeley.

1.06 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

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C. In finished areas, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

D. Coordinate completion and clean-up of work of separate sections.

E. After Owner re-occupancy of areas of finished work, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Comply with specifications and standards for each specific product involved.

B. New Materials: As specified in product sections; if not specified, match existing products and work for patching and extending work.

1. Existing ACT ceilings in areas of new work will require alterations to the existing grid and installation of new tiles that match the existing.

C. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine existing conditions of the Project, including elements subject to damage or to movement during cutting and patching.

B. After uncovering work, examine the conditions affecting the installation of products or performance of the Work.

C. Report unsatisfactory or questionable conditions to the City of Berkeley Project Manager in writing. Do not proceed with the work until the Project Manager has provided further instructions.

D. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

E. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

F. Examine and verify specific conditions described in individual specification sections.

G. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.

H. Verify that utility services are available, of the correct characteristics, and in the correct locations.

I. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the work.

B. Provide devices and methods to protect other portions of the Project from damage.

C. Provide protection from the elements for that portion of the Project that may be exposed by cutting and patching work.

D. Clean substrate surfaces prior to applying next material or substance.

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E. Seal cracks or openings of substrate prior to applying next material or substance.

F. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 GENERAL INSTALLATION REQUIREMENTS

A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.

B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to the necessity for replacement.

C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated. D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

F. Make neat transitions between different surfaces, maintaining texture and appearance.

3.04 ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Owner/Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.

B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage. Remove existing work as indicated and as required to accomplish new work.
   1. Remove rotted wood, corroded metals, and deteriorated roofing and concrete; replace with new construction specified.
   2. Remove items indicated on drawings.
   3. Relocate items indicated on drawings.
   4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
   5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and Site Utilities): Remove, relocate, and extend existing systems to accommodate new construction.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
   2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
   3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
      a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
      b. Provide temporary connections as required to maintain existing systems in service.

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4. Verify that abandoned services serve only abandoned facilities.
5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
3. Repair adjacent construction and finishes damaged during removal work.

G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
1. When existing 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 and make recommendation to Architect.
2. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.

3.05 PERFORMANCE

A. Execute cutting and demolition by methods that will prevent damage to other work and will provide proper surfaces to receive installation of repairs.

B. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.

C. All plumbing, mechanical, and electrical system elements shall be concealed, unless indicated otherwise.

D. Restore work which has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.

E. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

1. For continuous surfaces, refinish to nearest intersection.

2. For an assembly, refinish the entire unit.

3.06 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site weekly and dispose offsite; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

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C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

F. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.

G. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

H. Prohibit traffic from landscaped areas.

I. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

END OF SECTION

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SECTION 02 41 13
SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   1. Selective demolition of building elements as indicated.
   2. Pollutant control measures.
   3. Protection of existing building finishes during demolition and construction, including, but not limited to, exterior cement plaster and trim, windows and window trim, and all other finishes potentially impacted by new work.
   4. Protection of mechanical, electrical, and plumbing systems not indicated to be removed.
   5. Construction waste reduction, disposal, and recycling including required documentation for Construction Waste Management Plan and its implementation.

B. Related Sections
   1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
   2. Section 01 32 00 - Cutting and Patching.

1.02 REFERENCES

A. ANSI/ASSE - American National Standards Institute/American Society of Safety Engineers
   1. A10.6 - Safety Requirements for Demolition Operations.

B. EPA - Environmental Protection Agency

C. NFPA - National Fire Protection Association
   1. 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.03 DEFINITIONS

A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's (City of Berkeley's) property.
   1. Storage or sale of removed items or materials on-site is not permitted.

B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to the Owner's designated storage area.

C. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.

D. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Architect, at the Contractor's option and at no additional cost, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

E. Materials Ownership: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

1.04 SUBMITTALS

A. Schedule of selective demolition activities indicating the following:
   1. Interruption of utility services and security devices.
   2. Coordination for shutoff, capping, and continuation of utility services and security devices.
   3. Locations of temporary barricades, partitions, and means of egress.

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4. Above items shall be shown on Preliminary schedule and approved by the Owner, Final Schedule, and 3-week look ahead. Final dates of shutdowns are required no less than 10 days prior to activity in a request to Program Manager in writing.

B. Construction Logistics Plan indicating the following:
   1. Barricades and enclosures.
   2. Laydown and staging area.

C. Inventory of items to be removed and salvaged.

D. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations.
   1. Exterior cement plaster and trim not indicated to be removed.
   2. Bathroom and interior finishes, adjacent to new work, but not in scope to be removed or altered.

E. Record Drawings at Project Closeout: Identify and accurately locate capped utilities and other subsurface structural, electrical, plumbing, mechanical and security devices.

1.05 QUALITY ASSURANCE

A. Regulatory Requirements
   1. Comply with governing EPA notification regulations before beginning selective demolition.
   2. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

C. Pre-demolition Conference: Conduct conference at Project site.

1.06 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by the Owner as far as practical.

B. Portions of site, buildings, and portions of buildings immediately adjacent to selective demolition area will be occupied. Conduct selective demolition so Owner's operations will not be disrupted.

C. Asbestos: If any previously unidentified materials suspected of containing asbestos are encountered, do not disturb the materials. Immediately notify the Architect and the City of Berkeley.

1.07 WARRANTIES

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped where indicated.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
   1. Notify Owner and Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated plumbing, mechanical, electrical, security, or structural elements that conflict with the intended function or design are encountered, investigate, and measure the

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nature and extent of the conflict. Promptly submit a written report to the Architect and the City of Berkeley.

E. Survey the condition of the buildings to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structures during selective demolition.

F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.02 UTILITY SERVICES

A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
   1. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized by the Owner. Provide temporary services during interruptions to existing utilities, as acceptable to the Owner and to governing authorities.
      a. Provide not less than 10 calendar days' notice to the Owner if shutdown of service is required during changeover.
   2. Sitework will affect existing irrigation services. Provide not less than 72 hours' notice to the Owner when shutdown of irrigation service is required during sitework. Temporarily reconnect irrigation service to maintain irrigation in operation during construction.

B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving portions of the buildings or sitework to be selectively demolished.
   1. Arrange to shut off indicated utilities with the Owner.
   2. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
   3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit after bypassing.

3.03 PREPARATION

A. Conduct demolition operations and remove debris to ensure minimum interference with streets, walks, and other adjacent occupied and used facilities.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Owner and authorities having jurisdiction.

B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
   1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by the Owner.
   2. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition and construction operations.
      a. Exercise care to protect existing wood paneling and ceilings to remain.
   3. Cover and protect furniture, furnishings, and equipment that have not been removed.

C. Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
   1. Construct dustproof partitions of not less than nominal 4 inch studs and 1/2-inch fire retardant plywood on the demolition side; seal joints and perimeter.
   2. Non-plastic sheet materials shall be used to further mitigate dust and shall not trap moisture; seal to prevent dust penetration.

D. Provide and maintain interior and exterior bracing or structural support to preserve stability and prevent movement, settlement, or collapse of portions of building to be selectively demolished.
   1. Strengthen or add new supports when required during progress of selective demolition.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Owner, items may be removed to a suitable,

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protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.04 POLLUTANT CONTROLS

A. Use temporary enclosures and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.

B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
   1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.

C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

3.05 SELECTIVE DEMOLITION

A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
   1. Proceed with selective demolition systematically, from higher to lower level.
   2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
   3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire suppression devices during flame-cutting operations.
   5. Maintain adequate ventilation when using cutting torches.
   6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
   7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
   8. Locate selective demolition equipment throughout the structure and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
   9. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
   10. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.

B. Demolish concrete in small sections. Cut concrete at junctures with construction to remain, using power-driven masonry saw or hand tools; do not use power-driven impact tools.

3.06 MANAGEMENT OF DEMOLISHED MATERIALS

A. Recycle and/or salvage for reuse non-hazardous demolition waste in accordance with the Owner's direction and requirements of Division 01. Remove from site all materials not to be reused on site.

B. Store items to be salvaged and reinstalled in a secure and protected location until ready for reinstallation.

C. Burning: Do not burn demolished materials.

D. Refer to the Division 01 for procedures to follow when materials containing asbestos and lead are encountered.

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3.07 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations.

B. Return adjacent areas to condition existing before selective demolition operations began.

C. Sweep the work area broom clean on completion of selective demolition operation.

END OF SECTION

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SECTION 07 21 00
THERMAL INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sound attenuating batt insulation for existing interior walls impacted by new work.

1.02 RELATED REQUIREMENTS

A. Sections from Division 01 apply to this section.

B. Section 09 29 00 - Gypsum Board

1.03 REFERENCE STANDARDS

A. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus 2017.

B. ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation 2016a.

C. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications 2013.

D. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation 2017a.

E. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.

F. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board 2017.

G. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2017.

H. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C 2016a.

1.04 SUBMITTALS

A. See Division One for Submittals and submittal procedures.

B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

1.05 FIELD CONDITIONS

A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Thermal Insulation Manufacturers:
   1. Owens Corning: "PINK Fiberglas Sonobatts Insulation" for interior walls and cavities.
   2. Substitutions: see Section 01600: Product Requirements.

2.02 APPLICATIONS

A. Insulation in Metal Framed Interior Walls: Sound attenuating batt insulation.

2.03 BATT INSULATION MATERIALS

A. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
   1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
   3. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
   4. Formaldehyde Content: Zero.

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5. Thickness: as required to completely fill stud or ceiling joist cavity.
6. R-11 unfaced batts at interior walls.
7. Manufacturers:
   a. Owens Corning Corporation; EcoTouch PINK FIBERGLAS Insulation: www.ocbuildingspec.com/#sle.
   b. Owens Corning Corporation; Sound Attenuation Batt Insulation: www.ocbuildingspec.com/#sle.
   c. Substitutions: See Division 1 - Product Requirements.

2.04 ACCESSORIES

A. Insulation Fasteners: Lengths of unfinished, 13 gauge, 0.072 inch high carbon spring steel with chisel or mitered tips, held in place by tension, length to suit insulation thickness and substrate, capable of securely supporting insulation in place.

B. Insulation Fasteners: Impaling clip of unfinished steel with washer retainer and clips, to be adhered to surface to receive insulation, length to suit insulation thickness and substrate, capable of securely and rigidly fastening insulation in place.

C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.

D. Wire Mesh: Galvanized steel, hexagonal wire mesh.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.

B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BATT INSTALLATION

A. Install insulation in accordance with manufacturer's instructions.

B. Install in interior wall spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

E. Retain insulation batts in place with wire mesh secured to framing members where required between ceiling/roof framing.

3.03 FIELD QUALITY CONTROL

A. See Division One - Quality Requirements, for additional requirements.

3.04 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

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SECTION 07 92 00 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Surface preparation and installation of backing and elastomeric sealant in joints.

1. Silicone joint sealants.
2. Latex joint sealants.
3. Backing materials.

1.2 RELATED SECTIONS

A. Section 08 51 13 – Aluminum Windows; for coordination of mock-up.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordinate Work to ensure that adjacent areas are not adversely affected; that new materials and building interior are kept continuously dry; and that continuous, watertight, new sealant installation is provided. Coordinate:
1. With Owner's Representative.
2. With other trades:
   a. To ensure that work done by other trades is complete and ready for sealant Work.
   b. To avoid or minimize work on, or in immediate vicinity of, sealant Work in progress.
   c. To ensure that subsequent work will not adversely affect completed sealant Work.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data: Manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; and installation instructions.
1. For each type of primer, cleaner, backing, and sealant.

B. Shop Drawings:
1. Contractor's Field Survey: Annotated building plan or elevation drawings showing location of conditions that may require repair, including (but not limited to) concrete spalls, deteriorated interior plaster, and other deterioration or damage.
   a. Identify condition, quantity if applicable, and proposed repair type.

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b. Include tables or spreadsheets as applicable to summarize the information.

C. Samples for Initial Selection: Manufacturer's standard color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

D. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.
5. Primer, as recommended by the manufacturer, or as determined by pre-installation testing.

1.6 INFORMATIONAL SUBMITTALS

A. Preconstruction Laboratory Test Schedule: Include the following information for each joint sealant and substrate material to be tested:

1. Joint-sealant location and designation.
2. Manufacturer and product name.
3. Type of substrate and backing materials.
4. Proposed test.
5. Number of samples required.

B. Preconstruction Laboratory Test Reports: For each joint sealant and substrate material to be tested from sealant manufacturer, indicating the following:

1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
2. Interpretation of test results and written recommendations for primers and substrate preparation are needed for adhesion.

C. Field Quality-Control Reports: For field-adhesion-test reports, for each sealant application tested.

D. Installer Qualifications: Evidence that Installer’s existing company has minimum five years of continuous experience in similar sealant work; list of at least five representative, successfully-completed projects of similar scope and size.

E. Sample warranties.

1.7 CLOSEOUT SUBMITTALS

A. Manufacturers' special warranties.

B. Installer's special warranties.

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1.8 QUALITY ASSURANCE

A. Installer Qualifications: Experienced firm that has successfully completed sealant work similar in material, design, and extent to that indicated for Project; that is approved, authorized, or licensed by sealant manufacturer to install sealant; and that is eligible to receive sealant manufacturer's warranty. Must have successful installations of specified materials in local area in use for minimum of five years.
   1. Employ foreperson with minimum five years of experience as foreperson on similar projects, to be on Site at all times during Work. Do not change foreperson during the course of the Project except for reasons beyond the control of the Installer; inform Architect/Engineer in advance of any changes.

B. Preconstruction Testing Agency Qualifications: Independent agency qualified in accordance with ASTM C1021 to conduct the testing indicated, or manufacturer capable of testing per the methods of ASTM C1021.

1.9 MOCKUPS

A. Install sealant at window mock-up to verify and set quality standards for materials and installation procedures, and to demonstrate aesthetic effects.
   1. Include each type of backing material, sealant, primer, and other related products.
   2. Mockups shall be accessible from the interior and exterior or located as indicated by Owner's Representative. Coordinate location of testing to occur at the same location as the window mock-up. Do not fully install the interior seal, to allow access for observing the rough opening for water penetration during aluminum window mock-up testing.
   3. Notify Owner's Representative and Architect/Engineer seven days in advance of date when mockups will be constructed.
   4. Field-Adhesion Testing: After sealants have cured, perform testing per the field-adhesion testing article below. Repair sealant and allow to cure prior to mock-up testing of the aluminum window. Note that the interior seal may be partially installed at the time of this mock-up, or at contractor's option, may be tested separately after the completion of the aluminum window mock-up.
   5. If Architect/Engineer determines mockup does not comply with requirements, modify mockup or construct new mockup until mockup is approved.
   6. Mockups, when approved by Owner's Representative and Architect/Engineer, will become standard for evaluating the Work.
   7. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect/Engineer specifically approves such deviations in writing.
   8. Approved mockups may become part of completed Work if undisturbed at time of Substantial Completion.
   9. Do not begin joint sealant Work until mockup is accepted by Owner's Representative and Architect/Engineer.

B. Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

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1.10 PREINSTALLATION TESTING

A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.

1. Adhesion Testing: Use ASTM C794 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
2. Compatibility Testing: Use ASTM C1087 to determine sealant compatibility when in contact with glazing and gasket materials.
3. Submit manufacturer's recommended number of pieces of each type of material, including joint substrates, joint-sealant backings, and miscellaneous materials.
4. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
5. For materials failing tests, obtain joint-sealant manufacturer's written instructions for corrective measures, including use of specially formulated primers.
6. Testing will not be required if joint-sealant manufacturers submit data that are based on previous testing, not older than 24 months, of sealant products for adhesion to, staining of, and compatibility with joint substrates and other materials matching those submitted.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.

B. Deliver materials to Site in original packages with seals unbroken, labeled with manufacturer’s name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.

C. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which exhibit evidence of moisture during application or which have been exposed to moisture.

D. Store materials in original, undamaged containers and packaging in clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Protect stored materials from direct sunlight. Manufacturer’s standard packaging and covering is not considered adequate weather protection.

E. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.

F. Conspicuously mark wet or damaged materials and remove from Site as soon as possible.

G. Remove and replace materials that cannot be applied within stated shelf life.

1.12 FIELD CONDITIONS

A. Verify existing dimensions and details prior to start of sealant Work. Notify Architect of conditions found to be different than those indicated in the Contract Documents. Architect will review situation and inform Contractor and Installer of changes.

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B. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.13 CHANGES IN WORK

A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

1.14 WARRANTY

A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Disintegration of joint substrates from causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

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PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain joint sealants from single manufacturer for each sealant type.

2.2 JOINT SEALANTS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.3 SILICONE JOINT SEALANTS

A. Silicone, S, NS, 50, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 50, Use NT.

1. Use: Aluminum window and exterior seals.

2. Products: Subject to compliance with requirements, provide one of the following:
   a. SilPruf SCS2000; by Momentive Performance Materials Inc.
   b. Approved Equal.

2.4 LATEX JOINT SEALANTS

A. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C834, Type OP, ASTM C-920 class 12.5.

1. Use: Paintable sealant for interior window perimeter, including aluminum, wood, and plaster substrates. Use in all restroom applications.

2. Products: Subject to compliance with requirements, provide one of the following:
   a. Powerhouse 1100A Siliconized Acrylic Latex Sealant; by Sherwin Williams.
   b. Approved Equal.

2.5 JOINT-SEALANT BACKING

A. Joint Filler:
1. Products: Subject to compliance with requirements, provide one of the following:
   a. Fastflex Closed-Cell Polyethylene; by NOMACO.
   b. Approved Equal.

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B. Sealant Backing Material, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

C. Cylindrical Sealant Backings: ASTM C1330, Type B (bicellular material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. SOFRod; by NOMACO.
      b. Approved Equal.

D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. Commencing sealant Work constitutes acceptance of Work surfaces and conditions.

3.2 CONTRACTOR'S FIELD SURVEY

A. Survey all exposed surfaces included within the scope of work for deterioration and damage, including (but not limited to) open joints, damaged or missing substrates, and other deterioration or damage.

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B. Submit documentation of deteriorated and damaged conditions and proposed repairs in Shop Drawings. Do not begin Work in a work area until Shop Drawings for work area have been approved by Architect/Engineer.

3.3 PROTECTION

A. Take precautions to ensure safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.

B. Prevent construction debris and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.

C. Comply with sealant manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products.

D. Cover adjacent surfaces with materials that are proven to resist sealant.

3.4 PREPARATION

A. Remove existing sealant and other foreign material from joints.

B. Repair damage or deteriorated substrate surfaces according to sealant manufacturer's written instructions and as approved by Architect.

C. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

    a. Concrete
    b. Parge Coat/Mortar
    c. Interior plaster
    d. Interior wood trim

3. Remove laitance and form-release agents from concrete and mortar.
4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

    a. Metal

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b. Glass
c. Paint / elastomeric coating

D. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
1. Limit priming to areas that will be covered with sealant in the same day. Unless recommended otherwise by sealant manufacturer, reprime areas exposed for more than 24 hours.

E. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.5 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Use properly sized backing. Do not use multiple backing units or braided backing units to accommodate wide joints.
2. Install backer with device that will provide consistent depth between substrate surface and outer surface of backing.
3. Do not leave gaps between ends of sealant backings.
4. Do not stretch, twist, puncture, or tear sealant backings.
5. Remove absorbent sealant backings that have become wet before sealant application, and replace them with dry materials.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants in accordance with requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

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1. Remove excess sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
3. Provide concave joint profile in accordance with Figure 8A in ASTM C1193 unless otherwise indicated.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections, or coordinate with sealant manufacturer for performance of testing by manufacturer's representative.

B. Tests and Inspections:

1. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

a. Extent of Testing: Test completed and cured sealant joints as follows:

1) Achieve initially successful test on a minimum of 1 location per floor, per facade; for a total of 8 initially successful tests.
2) For each test that is not initially successful, perform repair and retest that location, and perform additional testing at two new locations selected by the Architect.
3) Repair all test locations to satisfaction of the Owner and Architect.

b. Test Method: Test joint sealants in accordance with Method A, Tail Procedure, in ASTM C1521.

1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.

c. Inspect tested joints and report on the following:

1) Whether sealants filled joint cavities and are free of voids.
2) Whether sealant dimensions and configurations comply with specified requirements.
3) Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion complies with sealant manufacturer's field-adhesion hand-pull test criteria.

d. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant material, sealant configuration, and sealant dimensions.
e. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

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2. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

C. Prepare test and inspection reports.

3.7 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur. Exercise care to avoid scratching or damaging surfaces.

B. At the end of each workday, clean Site and Work areas and place rubbish, empty cans, rags and other discarded materials in appropriate containers.

C. After completing sealant Work:
1. Repair surfaces stained, marred, or otherwise damaged during sealant Work.
2. Clean up debris and surplus materials and remove from Site.

3.8 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 07 92 00

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SECTION 08 31 00
ACCESS DOORS AND PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wall and ceiling-mounted access units.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
B. Section 09 90 00 - Painting and Coating: Field paint finish.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS

A. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.
B. Shop Drawings: Indicate exact position of each access door and/or panel unit.
C. Project Record Documents: Record actual locations of each access unit.

PART 2 PRODUCTS

2.01 WALL AND CEILING-MOUNTED ACCESS UNITS

A. Manufacturers:
   1. Babcock-Davis: www.babcockdavis.com/#sle.
   2. Karp Associates, Inc: www.karpinc.com/#sle.
   3. Nystrom, Inc: www.nystrom.com/#sle.
B. Wall- and Ceiling-Mounted Units: Factory-fabricated door and frame, fully assembled units with corner joints welded, filled and ground flush; square and without rack or warp; coordinate requirements with type of installation assembly being used for each unit.
   1. Material: Stainless Steel.
   2. Style: Recessed door panel for infill with wall/ceiling finish.
      a. Gypsum Board Mounting Criteria: Use drywall bead type frame.
   3. Frames: 16-gauge, 0.0598-inch minimum thickness.
   4. Door Panels to Receive Wall/Ceiling Finish: Surface recessed 5/8 inch back from wall face.
   5. Insulation: Non-combustible mineral wool or glass fiber.
   6. Stainless Steel Finish.
   7. Hardware:
      a. Hinges for Non-Fire-Rated Units: Concealed, constant force closure spring type.
      b. Latch/Lock: Tamperproof tool-operated cam latch.
      c. Number of Locks/Latches Required: As recommended by manufacturer for size of unit.
      d. Inside Latch Release: Mechanism that allows door/panel to be opened from inside.
      e. Gasketing: Extruded neoprene, around perimeter of door panel.
C. Wall-Mounted Units in Wet Areas and all areas with ceramic tile wall finish:
   1. Locations and sizes as indicated on the drawings. Minimum sizes as required by code for the component to be accessed.
   2. Location: As indicated on drawings.
   3. Panel Material: Stainless steel, Type 304.

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4. Size: 12 by 12 inches, minimum.
5. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.
6. Wall Mounting Criteria: Provide surface-mounted face frame and door surface flush with frame surface.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that rough openings are correctly sized and located.
B. Begin installation only after substrates have been properly prepared, and if the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to proceeding with this work.
B. Prepare surfaces using methods recommended by manufacturer for applicable substrates in accordance with project conditions.

3.03 INSTALLATION

A. Install units in accordance with manufacturer's instructions.
B. Install frames plumb and level in openings, and secure units rigidly in place.
C. Position units to provide convenient access to concealed equipment when necessary.

END OF SECTION

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SECTION 08 51 13 - ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Removal of existing steel windows and installation of aluminum windows. Remediation of existing hazardous materials are not described in this Section.

B. Related sections:
1. Section 03 01 34 Concrete Repair
2. Section 07 92 00 Joint Sealants
3. Section 09 01 24.62 Repair of Exterior Cement Parging
4. Section 09 91 23 Interior and Exterior Painting
5. Section 09 96 53 Elastomeric Coating

1.2 COORDINATION

A. Coordinate Work to ensure that adjacent areas are not adversely affected. Coordinate:
1. With Owner’s Representative.
2. With other trades:
   a. To ensure that work done by other trades is complete and ready for window-replacement Work.
   b. To avoid or minimize work on, or in immediate vicinity of, window-replacement Work in progress.
   c. To ensure that subsequent work will not adversely affect quality of completed installation.

B. Sequencing and Scheduling:
1. Sequence Work to minimize time from window removal to installation of replacement windows. Provide temporary protection when rough openings will be open at end of day, or when inclement weather is forecast.
2. Schedule Work to allow for proper installation of replacement window units, including installation of perimeter sealant, coatings, concrete repair, and weather-tight integration with surrounding construction.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Site use, access, staging, and set-up location limitations.
3. Limitations due to Owner’s use of facility.

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4. Approved mockup procedures.
5. Review, discuss, and coordinate interrelationship of aluminum windows with other exterior wall components. Include provisions for anchoring, flashing, weeping, sealing perimeters, and protecting finishes.
6. Review and discuss sequence of work required to construct a watertight and weathertight exterior building envelope.
7. Inspect and discuss condition of substrate and other preparatory work performed by other trades needed to receive replacement windows, including repairs, tolerances, frame attachment, and flashings.
8. Testing and inspection requirements.
9. Site protection and protection of adjacent walls and building interior.
10. Governing regulations.

B. Contractor's Site superintendent, window manufacturer's technical representative, window Installer, Owner's Representative, Architect/Engineer, and representatives of other trades directly affected by Work shall attend.

1.4 ACTION SUBMITTALS

A. Product Data: Manufacturer's literature for the window product indicated, including:
1. Instructions for substrate preparation.
2. Descriptions of materials, finishes, and hardware.
3. Dimensions of individual components and profiles.
4. Glazing and fabrication methods.
5. Technical data including tested physical and performance properties.
6. Installation instructions and construction details.
7. Operating instructions.
8. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.
9. Window cleaning provisions.

B. Shop Drawings
1. Provide project-specific plans, elevations, sections, and details for the following:
   a. Overall building elevations identifying location of each replacement window unit. Show field-verified dimensions of existing openings.
   b. Mullions, including reinforcement and stiffeners; joinery; expansion provisions; flashing and drainage; weather stripping; thermal breaks; and glazing.
   c. Hardware.
   d. Insect screens.
   e. Project specific detailing of all head, jamb, and sill conditions inclusive of attachments to other work and tie-ins with air/water barriers.
   f. Attachments to building structure, including fastener types and spacing.
   g. Operational clearances.
   h. Air/water barrier and flashings, even if installed by other trades, for coordination.
2. Provide fully coordinated shop drawings where work is subcontracted to others.
3. Clearly indicate all revisions to shop drawings on resubmissions.
4. Product Schedule: For aluminum windows. Use same designations indicated on Drawings.
5. Submit shop drawings concurrently with corresponding engineering calculations.

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6. All sheets shall be of one size and shall bear the sela of a Professional Engineer licensed in California.

C. Samples for Initial Selection: Manufacturer's standard color sheets, showing full range of available colors for each type of exposed finish.

D. Samples for Verification: Actual sample of finished products for each type of exposed finish:

1. Exposed Aluminum Finishes: Manufacturers' standard sample size.
2. Hardware: Full-size of each type.
3. Fastening devices (screws, bolts, etc.): full-size of each type.
4. Glass: 12 inch by 12 inch, each type and edge finish.
   a. For insulating glass units, provide assemblies representative of units to be used in the finished work, including scheduled glass, coatings, spacers, edge seals, and edge deletion.]
5. Setting blocks, shims, and other glazing accessories: Each type.

E. Structural Calculations: Structural calculations signed and sealed by engineer licensed in California, including:
1. Structural design pressures based on specified basic wind speeds.
2. Attachment of window to structure.
3. Design of perimeter and intermediate framing members.
4. Design of glass and infill panels.

F. Test and Evaluation Reports:
1. Product Test Reports: From qualified independent testing agency; based on comprehensive testing of each type, grade, and maximum size of window; performed within last fifteen years; indicating and interpreting test results for compliance with requirements. Test results shall be based on units of equal or larger size to those that will be used on the project.
2. Provide letter from manufacturer indicating that all project specific accessory components and assemblies meet specified performance requirements.
3. If customizations of the window product are required for this project, perform testing per ASTM E330 and ASTM E331.

1.5 INFORMATIONAL SUBMITTALS

A. Field Quality-Control Reports: For aluminum windows.

B. Qualification Statements: For manufacturer and Installer.

C. Sample warranties.

1.6 CLOSEOUT SUBMITTALS

A. Manufacturers' special warranties.

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1.7 QUALITY ASSURANCE

A. Installer Qualifications:
   1. Certification signed by window manufacturer, certifying that Installer complies with manufacturer's requirements to install specified, warranted window systems.
   2. Evidence that Installer's existing company has minimum five years of continuous experience in similar window replacement work; list of at least five representative, successfully completed projects of similar scope and size, including:
      a. Project name.
      b. Owner's name.
      c. Owner's Representative name, address, and telephone number.
      d. Description of work.
      e. Types of windows installed.
      f. Project supervisor.
      g. Total cost of window installation work and total cost of project.
      h. Completion date.
   3. Employ foreperson with minimum five years of experience as foreperson on similar projects, who is fluent in English, to be on Site at all times during Work. Do not change foreperson during the course of the Project except for reasons beyond the control of the Installer; inform Architect/Engineer in advance of any changes.
   4. Authorized representative who is approved by aluminum window manufacturer and authorized to install their products.

B. Delegated Design Engineer Qualifications: A professional engineer who is legally qualified to practice in California and who is experienced in providing engineering services of the type indicated.

C. Testing Agency: Contractor shall engage qualified independent testing and inspecting agency to perform mockup and quality control testing and prepare test reports.

1.8 MOCKUP

A. Build mockup to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
   1. Construct mockup of window type AA or DD in building walls at locations agreed upon by Architect/Engineer, Owner, and Contractor.
   2. Coordinate installation of mockup with work of other trades directly responsible for repair and restoration of surrounding construction. Concrete walls, sealant, and other Work surrounding window shall be installed and tested as part of window mockup.
   3. Field testing for air and water penetration resistance shall be performed in accordance with Field Quality Control article.
   4. If Architect/Engineer determines mockup does not comply with requirements, modify mockup or construct new mockup, and re-test until mockup is approved.
   5. Maintain approved mockup during construction in undisturbed condition to serve as baseline standard for quality and workmanship. Provide temporary protection as required to prevent incidental damage, or damage incurred due to work of other trades, until Substantial Completion of Project.
   6. Approved mockup may become part of completed Work if undisturbed at time of Substantial Completion.

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7. Approval of mockup does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver aluminum windows to Project site in original, unopened packages and store them in accordance with manufacturer's written instructions. Protect aluminum windows against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Handle aluminum windows in a manner that prevents damage before, during, and after installation.

1.10 WARRANTY

A. Special Warranty: Manufacturer and installer agree to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Failure to meet performance requirements.
b. Structural failures, including excessive deflection, water leakage, condensation, and air infiltration.
c. Faulty operation of movable sash and hardware.
d. Deterioration of materials and finishes beyond normal weathering.
e. Failure of insulating glass.

2. Warranty Period:

a. Installation: Five years from date of Substantial Completion
b. Window and Hardware: Ten years from date of Substantial Completion.
c. Glazing Units: Ten years from date of Substantial Completion.
d. Aluminum Finish: Twenty years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain aluminum windows from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

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B. Window Certification: FGIA certified with label attached to each window.

C. Thermal Performance: Provide manufacturer's standard polyamide thermal breaks. Energy performance requirements of the energy code do not apply, however minimize thermal transmission to the extent possible without impacting the historic character of the window design.

D. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:

1. Minimum Performance Class: CW.
2. Minimum Performance Grade: 40.
3. Mulled Window Systems: Evaluate and rate combination assemblies as single systems as determined by AAMA 450 in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 requirements.

E. Water Leakage Resistance: Minimum 12 psf, ASTM E331. This requirement is in addition to what is required for the specified AAMA class and grade.

F. Thermal Movements: Provide aluminum windows, including anchorage, which allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F; 180 deg F material surfaces.

2.3 ALUMINUM WINDOWS

A. Series SR6700 Steel Replica Windows from Graham Architectural Products

B. Provide manufacturer's aluminum window assemblies consisting of frames, sashes, glass, hardware, fasteners, and all components and accessories as required for a complete installation.

C. Operating Types: Provide the following operating types in locations indicated on Drawings:

1. Casement: Outswing.
2. Fixed.

D. Frames and Sashes: Aluminum extrusions of alloy, temper, and strength complying with AAMA/WDMA/CSA 101/I.S.2/A440.

1. Thermally Broken Construction: Fabricate frames, sashes, and muntins with an integral, concealed, low-conductance polyamid isobar located between exterior materials and window members exposed on interior side in a manner that eliminates direct metal-to-metal contact.

E. Insulating-Glass Units: ASTM E2190.

1. Glass: ASTM C1036, Type 1, Class 1, q3.

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a. Tint: Clear.
b. Kind: Fully tempered where required by code.

2. Lites: Two.
3. Filling: Fill space between glass lites with argon.
4. Spacer: Warm edge stainless steel or thermoplastic with integrated desiccant and primary seal that is chemically bonded directly to the glass and secondary sealant.
5. Low-E Coating: ASTM C1376, Solarban 70 on #2 surface.

F. Hardware, General: Provide manufacturer's standard hardware fabricated from aluminum or 300 series stainless steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock windows, and sized to accommodate sash weight and dimensions.

1. Exposed Hardware Color and Finish: As selected by Architect from manufacturer's full range.

G. Window Hardware: Casement.

1. Hinges: 4-bar.
2. Lock/latch: As selected by Architect from manufacturer's full range.
3. Limit Devices: Where required by Code, provide concealed support arms with adjustable, limited, hold-open limit devices designed to restrict sash opening.

a. Limit clear opening to 4 inches; with custodial key release.

H. Weather Stripping: Provide manufacturer's standard full-perimeter compression gaskets for each operable sash unless otherwise indicated.

I. Fasteners: 300 series stainless steel and compatible with window members, trim, hardware, anchors, and other components.

1. Exposed Fasteners: Avoid exposed fasteners to greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.

J. Mullions: Match the existing historic steel window profiles as closely as possible, without compromising the ability to resist design wind loads.

2.4 ACCESSORIES

A. Subsills: Thermally broken, extruded-aluminum subsills in configurations indicated on Drawings.

B. Interior Trim: Existing interior finish varies. abate, replace stool and apron trim to match existing profile. add new where none is existing. finish/stain to be selected for manufacturer’s full range.

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2.5 FABRICATION

A. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.

B. Weather strip each operable sash to provide weathertight installation.

C. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior to fully drain the glazing pocket at the perimeter of IGUs and to drain subsill.

D. Window Assemblies: Provide window units in configuration indicated on Drawings, to match existing. Provide window frames, sashes, hardware, and other trim and components necessary for a complete, secure, and weathertight installation.

E. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation.

2.6 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA AMP 500 "Metal Finishes Manual for Architectural and Metal Products," for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.7 ALUMINUM FINISHES

A. Organic Coatings:

1. High-Performance Fluoropolymer Finish: Two coats complying with AAMA 2605, containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Color and Gloss: Sahara Sand; PPG Code: UC72861.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

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B. Verify rough opening dimensions, levelness of sill plate, and operational clearances.

C. Examine wall flashings and other built-in components to ensure weathertight window installation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.

B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.

C. Install windows and components to drain water passing joints and condensation to the exterior.

D. Separate aluminum from sources of corrosion or electrolytic action at points of contact with other materials.

3.3 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Testing Services: Testing and inspection of installed windows as follows:

1. Testing Methodology: Testing of windows for air infiltration and water resistance in accordance with AAMA 502.
2. Air-Infiltration Testing:

    a. Test Pressure: As required to determine compliance in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 for performance class indicated.
    b. Allowable Air-Leakage Rate: 1.5 times the applicable AAMA/WDMA/CSA 101/I.S.2/A440 rate for product type and performance class rounded down to one decimal place.

3. Water-Resistance Testing per ASTM E1105

    a. Test Pressure: 8psf. Note this already includes a 1/3 field reduction.
    b. Allowable Water Infiltration: No water penetration.
    c. Water penetration shall be defined as any water, other than condensation, that appears on any interior surface of the window, or is identified on any surface inside the concealed spaces of the window or adjacent construction not designed specifically to function as part of the rainwater management system for the building enclosure and is drained to the exterior. This definition of water penetration governs over those found in referenced documents

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4. Testing Extent: Achieve the following number of initially successful tests for each window type, at locations selected by Architect and a qualified independent testing agency:
   a. Type AA: two windows (one of these may be used as the mock-up)
   b. Type DD: two windows (one of these may be used as the mock-up)
   c. Type EE: one window
   d. Type FF: one windows
5. For each location where an initially successful test is not achieved repair and retest the original location and select two new locations for testing.
6. Mock-up will be tested after sealant field-adhesion testing is completed, and repair sealant cure is complete.
7. Perform testing prior to installation of interior seals, to allow for observation of water within the rough opening.
8. Masking of the exterior surface of concrete where no Work has been performed is permitted.
9. Test Reports: Prepared in accordance with AAMA 502.

C. Tests and Inspections:

1. Windows will be considered defective if they do not pass tests and inspections.

2. For each test that is

3.4 ADJUSTING

A. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.

3.5 CLEANING AND PROTECTION

A. Clean exposed surfaces immediately after installing windows using manufacturer's written instructions. Avoid damaging finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

C. Protect window surfaces from contact with contaminating substances resulting from construction operations. If contaminating substances do contact window surfaces, remove contaminants immediately in accordance with manufacturer's written instructions.

END OF SECTION 085113

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SECTION 08 83 00
MIRRORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Glass mirrors.
   1. Tempered safety glass.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
B. Section 10 28 00 - Commercial Toilet Accessories.

1.03 REFERENCE STANDARDS

A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
B. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
C. GANA (GM) - GANA Glazing Manual; 2022.
D. GANA (SM) - GANA Sealant Manual; 2008.

1.04 SUBMITTALS

A. Product Data on Mirror Types: Submit structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
B. Product Data on Glazing Compounds: Submit chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
C. Manufacturer's Certificate: Certify that mirrors, meets or exceeds specified requirements.
D. Warranty: Submit manufacturer warranty and ensure that forms have been completed in City's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with GANA (GM) and GANA (SM) for glazing installation methods.
B. Fabricate, store, transport, receive, install, and clean mirrors in accordance with manufacturer's recommendations.

1.06 FIELD CONDITIONS

A. Do not install mirrors when ambient temperature is less than 50 degrees F.
B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.07 WARRANTY

A. See Division One - Closeout Procedures - for additional warranty requirements.
B. Provide five-year manufacturer warranty for reflective coating on mirrors and replacement of same.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Mirrors:

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1. Guardian Glass: "Ultra Mirror" or approved equal

2.02 MATERIALS

A. Mirror Design Criteria: Select materials and/or provide supports as required to limit mirror material deflection to 1/200, or to the flexure limit of glass, with full recovery of glazing materials, whichever is less.

B. Mirror Glass: Clear, tempered safety glass; ASTM C1048, with silver coatings, and protective overcoating. Distortion free float-glass.
   1. Thickness: 1/4 inch.
   2. Edges: Arrised.
   3. Size: As indicated on drawings.
   4. Low-Iron
   5. Copper free silver coating

2.03 GLAZING COMPOUNDS

A. Silicone Sealant: ASTM C920, Type S, Grade NS, Class 25, Uses M and A; single component; chemical or solvent curing; non-bleeding, non-staining, cured Shore A hardness of 15 to 25; transparent color.

2.04 ACCESSORIES

A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness.

B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness.

C. Glazing Tape: Preformed butyl compound; 10 to 15 Shore A durometer hardness; on release paper.

D. Glazing Clips: Manufacturer's standard type.

E. Mirror Adhesive: Silicone pre-polymer based, chemically compatible with mirror coating and wall substrate.
   1. Volatile Organic Content (VOC): Less than 7 percent by weight.

F. Rolled Formed Frame: One piece, roll-formed angle frame, stainless steel, Type 430, satin finish, with welded frame corners, ground and polished smooth.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that openings for mirrored glazing are correctly sized and within tolerance.

B. Verify that surfaces of mirror frames or recesses are clean, free of obstructions, and ready for installation of mirrors.

3.02 INSTALLATION

A. Install mirrors in accordance with manufacturer's recommendations.

B. Set mirrors plumb and level, and free of optical distortion.

C. Set mirrors with edge clearance free of surrounding construction including countertops or backsplashes.

D. Installation in Frames:
   1. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.
   2. Place setting blocks at one-quarter points with edge block no more than 6 inches from corners.
   3. Rest mirrors on setting blocks and push against tape to ensure full contact at perimeter of pane or unit.
   4. Place glazing tape on free perimeter of mirrors in same manner described above.

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5. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
6. Trim protruding tape edge.

3.03 CLEANING

A. Remove wet glazing materials from finish surfaces.
B. Remove labels after work is complete.
C. Clean mirrors and adjacent surfaces.

END OF SECTION

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SECTION 09 21 16
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.
B. Interior gypsum wallboard.
C. Gypsum backing board for wet areas and restrooms.
D. Joint treatment and surface coating.
E. Accessories.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
B. Division One - Construction Waste Management and Disposal.
C. Division One - Sustainable Design Requirements.
D. Section 07 21 00 - Thermal Insulation.

1.03 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2017 (Reapproved 2022).
B. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Board; 2004 (Reapproved 2020).
C. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).
D. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2023.
E. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2023.
F. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2022.
G. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2019.
H. ASTM C1178/C1178M - Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel; 2018.
I. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
J. ASTM C1658/C1658M - Standard Specification for Glass Mat Gypsum Panels; 2019, with Editorial Revision (2020).
K. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2021.
L. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
M. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2023.
N. ASTM E413 - Classification for Rating Sound Insulation; 2022.
O. GA-216 - Application and Finishing of Gypsum Panel Products; 2024.
P. UL (GGG) - GREENGUARD Gold Certified Products; Current Edition.

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1.04 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing.

1.05 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.06 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
C. Do not install panels that are wet, moisture damaged, and mold damaged.
   1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
   2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 PRODUCTS

2.01 LEED REQUIREMENTS

A. All thermal and acoustic insulation products provided in the work of this specification section must be compliant with CDPH Standard Method v1.2-2017 emissions testing with proper unexpired CDPH testing certificates or acceptable third party certification.

2.02 MATERIAL REQUIREMENTS, GENERAL

A. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.

2.03 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.
   1. See PART 3 for finishing requirements.
B. Interior Partitions Indicated as Sound-Rated: Provide completed assemblies with the following characteristics:
   1. Acoustic Attenuation: STC as indicated calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

2.04 BOARD MATERIALS - GENERAL

A. Manufacturers - Gypsum-Based Board:
   1. CertainTeed Corporation: www.certainteed.com/#sle.
   2. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
   3. National Gypsum Company: www.nationalgypsum.com/#sle.
   4. PABCO Gypsum: www.pabcogypsum.com/#sle.
   5. USG Corporation: www.usg.com/#sle.
B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place. Long edges tapered, ends square cut.
   1. Use Type X board, UL or WH listed.
   2. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.

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3. Glass mat faced gypsum panels, as defined in ASTM C1658/C1658M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
4. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
   a. Mold-resistant board is required whenever board is being installed before the building is enclosed and conditioned.
5. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly.
6. Thickness:
   a. Vertical Surfaces: 5/8 inch.
   b. Ceilings: 5/8 inch.
   c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
7. Paper-Faced Products:
   a. CertainTeed Corporation; Type X Drywall: www.certainteed.com/#sle.
   b. Georgia-Pacific Gypsum; ToughRock Fireguard X: www.gpgypsum.com/#sle.
   c. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.
   d. USG Corporation; Sheetrock Brand EcoSmart Panels Firecode X 5/8 in. (15.9 mm): www.usg.com/#sle.
   e. USG Corporation; Sheetrock Brand Firecode X Panels 5/8 in. (15.9 mm): www.usg.com/#sle.
8. Mold-Resistant, Paper-Faced Products:
   a. CertainTeed Corporation; M2Tech 5/8" Type X Moisture & Mold Resistant Drywall: www.certainteed.com/#sle.
   b. Georgia-Pacific Gypsum; ToughRock Fireguard X Mold-Guard: www.gpgypsum.com/#sle.
   c. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Gypsum Board: www.goldbondbuilding.com/#sle.
   d. USG Corporation; Sheetrock Brand EcoSmart Panels Mold Tough Firecode X 5/8 in. (15.9 mm): www.usg.com/#sle.
9. Glass Mat Faced Products:
   a. Georgia-Pacific Gypsum; DensArmor Plus Fireguard C Type X: www.gpgypsum.com/#sle.
   b. National Gypsum Company; Gold Bond eXP Fire-Shield X Interior Extreme Gypsum Panel: www.nationalgypsum.com/#sle.
   c. USG Corporation; USG Sheetrock Brand Glass-Mat Panels Mold Tough Firecode X.

2.05 BACKING BOARD FOR WET AREAS AND RESTROOMS

A. Application: Surfaces behind tile in wet areas including tub and shower surrounds, shower ceilings, and restrooms and janitorial closets.
B. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
C. Glass Mat Faced Board: Coated glass mat water-resistant gypsum backing panel as defined in ASTM C1178/C1178M.
   1. Fire-Resistance-Rated Type: Type X core, thickness 5/8 inch.
   2. Products:
      a. CertainTeed Corporation; GlasRoc 5/8" Type X Tile Backer: www.certainteed.com/#sle.
      b. Georgia-Pacific Gypsum; DensShield Tile Backer: www.gpgypsum.com/#sle.
      c. National Gypsum Company; Gold Bond eXP Tile Backer: www.nationalgypsum.com/#sle.

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2.06 ACCESSORIES

A. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
   1. Corner Beads: Low profile, for 90 degree outside corners.
   2. Architectural Reveal Beads:
      a. Shapes: As indicated on drawings.
   3. Expansion Joints:
      a. Type: Accordian profile with factory-installed protective tape.
      b. Products:
         1) Phillips Manufacturing Co; 093 Expansion Control Joint: www.phillipsmfg.com/#sle.
         2) Trim-Tex, Inc: www.trim-tex.com/#sle.
         3) USG Corporation; Type X.
   4. 2-Piece Expansion Joints:
      a. Type: Double J-molding with receiver and extended flange designed to provide a 1/2 inch reveal.
      b. Products:
         1) Phillips Manufacturing Co: www.phillipsmfg.com/#sle.
         2) Trim-Tex, Inc: www.trim-tex.com/#sle.
         3) USG Corporation; Type DX

B. Paper-Faced Beads, Joint Accessories, and Other Trim: ASTM C1047, unless noted otherwise.
   1. Material: Paper-Faced Metal Drywall Bead and Trim. Paper tape laminated to a sturdy, rust-resistant metal form, Coated paper tape flange intended for adhesion by means of joint compound. No nailing is required.
      a. Manufacturer: USG Beadex® Brand Paper-Faced Metal Drywall Bead and Trim profiles.
      b. Or equal.

C. Moisture Guard Trim: ASTM C1047, rigid plastic, 48 inch length, applied to bottom edge of gypsum board.
   1. Height: 1/2 inch.
   2. Depth: To match board thickness.
   3. Products:
      a. Waterguard USA; Waterguard: www.waterguard-usa.com/#sle.

2.07 JOINT AND SURFACE FINISHES

A. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
   1. Fiberglass Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
   2. Paper Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.
   3. Joint Compound: Drying type, vinyl-based, ready-mixed.

B. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
   1. Products:

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a. CertainTeed Corporation; Level V Wall and Ceiling Primer/Surfacer with M2Tech: www.certainteed.com/#sle.
b. USG Corporation; USG Sheetrock Brand Tuff-Hide Primer-Surfacer: www.usg.com/#sle.

2.08 FASTENERS AND ADHESIVES

A. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion-resistant.
B. Nails for Attachment to Wood Members: ASTM C514.
C. Adhesive for Attachment to Wood, ASTM C557:
   1. Products:
      a. Franklin International, Inc; Titebond Drywall Construction Adhesive: www.titebond.com/#sle.
      b. Liquid Nails, a brand of PPG Architectural Coatings: www.liquidnails.com/#sle.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 ACOUSTIC ASSEMBLIES

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
B. Sound Isolation Tape: Apply to vertical studs and top and bottom tracks/runners in accordance with manufacturer's instructions.
C. Acoustic Sealant: Install in accordance with manufacturer's instructions.
   1. Place two beads continuously on substrate before installation of perimeter framing members.
   2. Place continuous bead at perimeter of each layer of gypsum board.
   3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.03 BOARD INSTALLATION

A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
B. Single-Layer Non-Rated: Install gypsum board perpendicular to framing, with ends and edges occurring over firm bearing.
C. Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.
D. Installation on Metal Framing: Use screws for attachment of gypsum board.

3.04 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.
B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.

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2. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
3. Level 3: Walls to receive textured wall finish.
4. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
5. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.
6. Level 0: Temporary partitions.

D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.
   2. Taping, filling, and sanding is not required at surfaces behind fixed cabinetry.

E. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.05 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

3.06 PROTECTION

A. Protect installed gypsum board assemblies from subsequent construction operations.

END OF SECTION

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SECTION 09 30 00
TILING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Tile for interior wall applications.

B. Cementitious backer board as tile substrate.

C. Ceramic accessories.

D. Non-ceramic trim.

1.02 RELATED REQUIREMENTS

A. Section 07 92 00 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.

B. Section 09 21 16 - Gypsum Board: Tile backer board.

1.03 REFERENCE STANDARDS

A. ANSI A108/A118/A136 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium). 2017.

B. ANSI A108.1a - American National Standard Specifications for Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar 2014.

C. ANSI A108.1b - American National Standard Specifications for Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar 1999 (Reaffirmed 2010).

D. ANSI A108.1c - Specifications for Contractors Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex-Portland Cement 1999 (Reaffirmed 2010).

E. ANSI A108.2 - American National Standard General Requirements: Materials, Environmental and Workmanship 2019.

F. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive 2009 (Revised).

G. ANSI A108.5 - American National Standard Specifications for Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar 1999 (Reaffirmed 2010).

H. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy 1999 (Reaffirmed 2010).

I. ANSI A108.8 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout 1999 (Reaffirmed 2010).

J. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout 1999 (Reaffirmed 2010).

K. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework 1999 (Reaffirmed 2010).

L. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units 2010 (Reaffirmed 2016).

M. ANSI A108.12 - American National Standard for Installation of Ceramic Tile with EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar 1999 (Reaffirmed 2010).

N. ANSI A108.13 - American National Standard for Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone 2005 (Reaffirmed 2010).

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O. ANSI A108.19 - American National Standard Specifications for Interior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs by the Thin-Bed Method Bonded with Modified Dry-Set Cement Mortar or Improved Modified Dry-Set Cement Mortar 2017.

P. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive 2013 (Revised).

Q. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar 2012 (Revised).

R. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation 2010 (Reaffirmed 2016).

S. ANSI A118.7 - American National Standard Specifications for High Performance Cement Grouts for Tile Installation 2010 (Reaffirmed 2016).

T. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units 1999 (Reaffirmed 2016).

U. ANSI A118.10 - American National Standard Specifications for Load Bearing, Bonded, Waterproof Membranes For Thin-Set Ceramic Tile And Dimension Stone Installation 2014.

V. ANSI A118.15 - American National Standard Specifications for Improved Modified Dry-Set Cement Mortar 2012.

W. ANSI A137.1 - American National Standard Specifications for Ceramic Tile 2012.

X. ASTM C373 - Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tiles and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products 2017.

Y. ASTM C1178/C1178M - Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel 2013.

Z. ASTM D4068 - Standard Specification for Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane 2015.

AA. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation 2017.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

1.05 SUBMITTALS

A. See Division 01 - Submittals, for submittal procedures.

B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

C. Samples: Mount tile and apply grout on two plywood panels, minimum 18 by 18 inches in size illustrating pattern, color variations, and grout joint size variations.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, with minimum five years of documented experience.

B. Installer Qualifications: Company specializing in performing tile installation, with minimum of five years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.08 FIELD CONDITIONS

A. Do not install solvent-based products in an unventilated environment.

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B. Maintain ambient and substrate temperature of 50 degrees F during installation of mortar materials.

PART 2 PRODUCTS

2.01 TILE

A. Manufacturers:
1. Daltile, Keystones and Color Wheel Classic.
2. 2303 Merced Street, San Leandro, CA 94577 (Therese Atienza, 510 579 3877)
3. Or approved equal.
4. See Division One for Substitutions and Product Requirements.

B. Glazed Wall Tile: ANSI A137.1 standard grade.
1. Moisture Absorption: .1 percent as tested in accordance with ASTM C373.
2. Surface Finish: High gloss,
3. Color(s): To be selected from standard colors. Match existing.
4. Pattern: stacked bond – match existing.
5. Trim: Schluter Systems as indicated in the drawings.
6. Products:
   a. Wall Tile.
      1) Basis-of-Design Manufacturer: Daltile.
      2) Product: Classic Color Wheel Collection, Glazed Ceramic
      3) Modular Size: 4 x 4 inches nominal.
      4) Thickness: 5/16”.
      5) Color: to be selected – “glossy”.

C. Matte floor tile
1. Daltile product: “keystones” 2” x 2”
2. Mosaic floor tile
3. Color: to match existing
4. Pattern: to match existing
5. Trim: Schluter Systems

2.02 TRIM AND ACCESSORIES

A. Non-Ceramic Trim: Satin Nickel Anodized Aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
1. Applications:
   a. Open edges of wall tile.
   b. Wall corners, outside.
   c. Borders and other trim as indicated on drawings.
2. Manufacturers:
   a. Schluter-Systems: www.schluter.com/#sle.

2.03 SETTING MATERIALS

A. Manufacturers:
1. ARDEX Engineered Cements: www.ardexamericas.com/#sle.
2. LATICRETE International, Inc: www.laticrete.com/#sle.
3. Substitutions: Section 01600 Product Requirements.

B. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4.
1. Applications: Use this type of bond coat where indicated and where no other type of bond coat is indicated.
2. Products:
   a. ARDEX Engineered Cements; ARDEX N 23 MICROTEC: www.ardexamericas.com/#sle.
   b. LATICRETE International Inc.; LATICRETE MVIS Veneer Mortar for exterior tile application or LATICRETE MVIS Lite Wall Float if required by assembly detail.

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c. Substitutions: Section 01600 Product Requirements.

2.04 GROUTS

A. Manufacturers:
1. Custom Building Products: www.custombuildingproducts.com/#sle.
2. LATICRETE International, Inc; LATICRETE PERMACOLOR Grout: www.laticrete.com/#sle.
3. LATICRETE International, Inc; LATICRETE MVIS Pointing Mortar: www.laticrete.com/#sle.

B. High Performance Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
1. Applications: Use this type of grout at walls and where no other type of grout is indicated.
2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
3. Color(s): As selected by Architect from manufacturer's full line.
4. Products:
a. LATICRETE International, Inc; LATICRETE PERMACOLOR Grout: www.laticrete.com/#sle.
b. Substitutions: Section 01600 Product Requirements..Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.
5. Applications: Where indicated at walls.
6. Color(s): As selected by Architect from manufacturer's full line.
7. Products:
a. LATICRETE International, Inc; LATICRETE SPECTRALOCK PRO Premium Grout: www.laticrete.com/#sle.
b. Substitutions: Section 01600 Product Requirements.

2.05 ACCESSORY MATERIALS

A. Membrane at Walls:
1. Material: No. 15 asphalt saturated felt.

B. Backer Board: Cementitious type complying with ANSI A118.9; high density, glass fiber reinforced, 1/4", 1/2", 5/8" or built up to 3/4" thick as indicated or required to meet specified assembly thickness; 2 inch wide coated glass fiber tape for joints and corners.
1. Products:
a. Custom Building Products; WonderBoard Lite Backerboard: www.custombuildingproducts.com/#sle.
b. USG: DUROCK with Edgeguard.
c. James Hardie Products: Hardie Backer
d. Or Equal

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.

3.02 PREPARATION

A. Protect surrounding work from damage.

B. Vacuum clean surfaces and damp clean.

C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

D. Install backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of setting material to a feather edge.

3.03 INSTALLATION - GENERAL

A. Lay tile to pattern indicated. Do not interrupt tile pattern through openings or mirror locations.

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B. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align wall joints.

C. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.

D. Form internal angles square and external angles bullnosed.

E. Install non-ceramic trim in accordance with manufacturer's instructions.

F. Sound tile after setting. Replace hollow sounding units.

G. Keep control and expansion joints free of mortar, grout, and adhesive.

H. Prior to grouting, allow installation to completely cure; minimum of 48 hours.

I. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.

J. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

3.04 INSTALLATION - WALLS - THIN-SET METHODS

A. See drawings for specified TCNA setting methods.

3.05 CLEANING

A. Clean tile and grout surfaces.

END OF SECTION

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SECTION 09 90 00 - PAINTING AND COATING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation and field painting of exposed exterior items and surfaces.

B. Surface preparation and field application of interior high-performance coating systems to items and surfaces scheduled.

1.02 RELATED REQUIREMENTS

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

B. Division 1 – City of Berkeley Construction Waste Management and Disposal.

C. Division 1 – City of Berkeley Sustainable Design Requirements: Requirements for low-emitting materials.

D. Section 06 20 00 - Finish Carpentry

E. Section 07 92 00 - Joint Sealants.

F. Section 09 24 00 - Cement Plastering: Finish system for cement plaster assemblies.

1.03 DEFINITIONS

A. General: Paint includes coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats. Standard coating terms are defined in ASTM D16.

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85 degree meter.

2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60 degree meter.

3. Semi-Gloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60 degree meter.

4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60 degree meter.

B. Environments: The following terms distinguish between different corrosive exposures:

1. "Severe environments" are highly corrosive industrial atmospheres with sustained exposure to high humidity and condensation and with frequent cleaning using strong chemicals. Environments with heavy concentrations of strong chemical fumes and frequent splashing and spilling of harsh chemical products are severe environments.

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2. "Moderate environments" are corrosive industrial atmospheres with intermittent exposure to high humidity and condensation, occasional mold and mildew development, and regular cleaning with strong chemicals. Environments with exposure to heavy concentrations of chemical fumes and occasional splashing and spilling of chemical products are moderate environments.

3. "Mild environments" are industrial atmospheres with normal exposure to moderate humidity and condensation, occasional mold and mildew development, and infrequent cleaning with strong chemicals. Environments with low levels of mild chemical fumes and occasional splashing and spilling of chemical products are mild environments. Normal outdoor weathering is also considered a mild environment.

1.04 REFERENCE STANDARDS

A. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2016.

B. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; 2017, v1.2.

C. EN 15804 - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products; 2014.

D. ISO 14025 - Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures; 2006.

E. ISO 14040 - Environmental management - Life cycle assessment - Principles and framework; 2006 (Amended 2020).

F. ISO 14044 - Environmental management - Life cycle assessment - Requirements and guidelines; 2006 (Amended 2020).

G. ISO 21930 - Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services; 2017.

H. SSPC-SP 6/NACE No.3 - Commercial Blast Cleaning; 2006.

1.05 SUBMITTALS

A. CALGreen Submittals:

1. Product Data for CALGreen 5.504.4.3 - Finish Material Pollutant Control, Paints and Coatings: Product data and material safety data sheets (MSDS) for coatings, including printed statement of chemical composition and VOC content of each product used.

2. Aerosol paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for VOC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District

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additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

3. Field Verification of on-site product containers: If required by Authority Having Jurisdiction.

B. Product Data: For each paint system indicated, including:

1. Material List: An inclusive list of required coating materials. Indicate each material and cross reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.

2. Preparation instructions and recommendations.

3. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.

C. Verification Samples: For each finish product specified, two samples, minimum size 8 inch square, representing actual product, color, and patterns.

1. Step coats on Samples to show each coat required for system.

2. Label each coat of each Sample.

3. Label each Sample for location and application area.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this project, whose work has resulted in applications with a record of successful in-service performance.

B. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.

C. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.

D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F. Maintain storage containers in a clean condition, free of foreign materials and residue.

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1.08 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 degrees F and 90 degrees F.

C. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 degrees F and 95 degrees F.

D. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.

1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.09 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.

B. Quantity: Furnish Owner with an additional three percent, but not less than 1 gallon or 1 case, as appropriate, of each material and color applied.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design Manufacturer: Sherwin Williams. Toll Free Tel: 1-800-474-3794. Web: www.sherwin-williams.com/#sle.

B. Basis of Design Manufacturer: Acoustical Surfaces, Inc.; SonoKote by ROMABIO. www.acousticalsurfaces.com/#sle.

C. Other Acceptable Manufacturers:

1. Dunn Edwards.

2. Benjamin Moore

2.02 PAINT MATERIALS - GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

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B. VOC Classification: Provide high-performance coating materials, including primers, undercoats, and finish-coat materials, that meet the applicable local, state or federal VOC requirements.

1. **Comply with all product VOC levels specified in this Section that are more stringent than regulatory requirements.**

C. CalGreen Coating VOC Limits: Refer to Section 01 81 14 - NTU Sustainable Design Requirements.

D. Color: Sherwin Williams #407 “Carbon” for new fencing structure and finish boards. New trim and cement plaster to match colors of existing and adjacent wood trim and cement plaster. Sheen for new work = Semi-Gloss.

2.03 EXTERIOR PRIMERS

A. Exterior Concrete and Masonry Primer for **new** surfaces: Factory-formulated alkali-resistant acrylic primer for exterior application.

1. Sherwin Williams; LX2W50 Loxon Concrete & Masonry Primer (46 g/L VOC)

2. Dunn Edwards; Eff-Stop Premium (ESPR00) (20 g/l)

3. Benjamin Moore; 608 Ultra Spec 100% Acrylic Primer (48 g/L VOC)

B. Exterior Concrete and Masonry Primer for **existing previously-painted** surfaces: Factory-formulated alkali-resistant acrylic primer for exterior application.

1. Sherwin Williams; LX2W50 Loxon Concrete & Masonry Primer (46 g/L VOC)

2. Dunn Edwards; UGSL00-Ultra-Grip Premium Exterior Concrete Primer (20 g/l VOC)

3. Benjamin Moore; 608 Ultra Spec 100% Acrylic Primer (48 g/L VOC)

C. Exterior Gypsum Soffit Board Primer: Factory-formulated acrylic primer for exterior application.

1. Sherwin Williams; B51W620 PrepRite ProBlock Interior Exterior Latex Primer (0 g/l VOC)

2. Dunn Edwards; UGSL00-Ultra-Grip Select Exterior Soffit Board Primer (50 g/l VOC)

3. Benjamin Moore; 067 Multipurpose Primer (29.5 g/L VOC).

D. Exterior Wood Primer for Acrylic Enamels: Factory-formulated acrylic wood primer for exterior application.

1. Sherwin Williams; B51W620 PrepRite ProBlock Interior Exterior Latex Primer (0 g/l VOC)

2. Dunn Edwards; UGSL00-Ultra-Grip Select Multi Surface Primer (3 g/l VOC).

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3. Benjamin Moore; 067 Multipurpose Primer (29.5 g/L VOC).

E. Exterior Ferrous, Non-Ferrous, Galvanized Metal, and Aluminum Primer: Factory-formulated waterborne acrylic rust-inhibitive metal primer.

1. Sherwin Williams; B66W1310 Pro Industrial Pro-Cryl (40 g/l VOC).

2. Dunn Edwards; ENPR00-Enduraprime Ferrous Metal Primer; ULGM00-Ultrashield Galvanized Primer (50 g/l VOC).

3. Benjamin Moore; HP04 Ultra Spec HP Acrylic Metal Primer (48 g/L VOC).

2.04 EXTERIOR FINISH COATS

A. Exterior Flat Acrylic Paint: Factory-formulated flat 100% acrylic latex paint for exterior application.

1. Sherwin Williams; A6 Series A-100 Exterior Flat (27 g/L VOC).

2. Dunn Edwards; SSHL10-Spartashield Exterior Acrylic Flat (50 g/L VOC).

3. Benjamin Moore; N447 Ultra Spec EXT Flat Finish (45 g/L VOC).

B. Exterior Satin Acrylic Paint: Factory-formulated satin waterborne acrylic paint for exterior application.

1. Sherwin Williams; A82 A-100 Exterior Satin (43 g/L VOC).

2. Dunn Edwards; SSHL20-Spartashield Exterior Water Base Acrylic Velvet (45 g/l VOC).

3. Benjamin Moore; V392 Command Waterborne Acrylic Urethane Satin **(138 g/L VOC)**.

Metal Substrates

4. Sherwin Williams; B66-1250 Pro Industrial DTM Eg-Shel (33 g/L VOC).

5. Dunn Edwards; ENCT30-Enduracoat Interior-Exterior Industrial Coating Eggshell (100 g/l VOC).

6. Benjamin Moore; HP25 Ultra Spec HP DTM Low Lustre Acrylic Enamel (145 g/L VOC).

C. Exterior Semi-Gloss Acrylic Paint: Factory-formulated semi-gloss waterborne acrylic enamel for exterior application. For application on exterior cement-fiber products.

Metal Substrates

1. Sherwin Williams; B66-1150 Pro Industrial DTM Semi-Gloss (33 g/L VOC).

2. Dunn Edwards; ENCT50-Enduracoat Interior-Exterior Industrial Coating Semi-Gloss (100 g/l VOC).

3. Benjamin Moore; HP29 Ultra Spec HP DTM Semi-Gloss Enamel (147 g/L VOC).

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D. Exterior Full-Gloss Acrylic Enamel: Factory-formulated full-gloss waterborne acrylic-latex enamel for exterior application.

1. Sherwin Williams: B66-1051 Pro Industrial DTM Gloss (33 g/L).

2. Dunn Edwards; ENCT60-Enduracoat Interior-Exterior Industrial Gloss (100 g/l VOC).

3. Benjamin Moore; HP28 Ultra Spec HP DTM Gloss Enamel (142 g/L VOC).

E. Exterior High Performance Low-VOC Polyester Acrylic Polyurethane Coating

1. Sherwin Williams:

a. First Coat: B58-610 Macrooxy 646 Fast Cure Epoxy

b. Second and Third Coats: B65W300 Hi-Solids Polyurethane

2. Dunn Edwards:

a. First Coat: Carboline Carboguard 890 Epoxy.

b. Second and Third Coats: Carboline Polyurethane; Carbothane HB-133 Gloss or !34 Semi-Gloss.

3. Benjamin Moore:

a. CV400 Polyamide Epoxy Coating, Polyamide Epoxy Coating Gloss (238 g/L VOC).

b. V500 Aliphatic Urethane, Aliphatic Urethane Gloss (228 g/L VOC).

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Coordination of Work: Review other sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

1. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.

2. If a potential incompatibility of primers applied by others exists, obtain the following from the primer applicator before proceeding:

a. Confirmation of primer's suitability for expected service conditions.

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b. Confirmation of primer's ability to be top coated with materials specified.

3.02 PREPARATION

A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.

1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime.

2. Cementitious Substrates: Prepare concrete, brick, concrete masonry block, and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.

a. Use abrasive blast-cleaning methods if recommended by coating manufacturer.

b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.

3. Wood Substrates: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Smoothly sand surfaces exposed to view and dust off.

a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer, before applying primer.

b. Immediately on delivery, prime edges, ends, faces, undersides, and backsides of wood to be coated.

c. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

4. Ferrous Metal Substrates: Clean ungalvanized ferrous metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign

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substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.

a. Blast clean steel surfaces as recommended by coating manufacturer and in accordance with SSPC-SP 6/NACE No.3.

b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.

c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.

5. Non-Ferrous Metal Substrates: Clean non-ferrous and galvanized surfaces according to manufacturer's written instructions for the type of service, metal substrate, and application required.

a. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.

D. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.

1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.

2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.

3. Use only the type of thinners approved by manufacturer and only within recommended limits.

4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.03 APPLICATION

A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

B. General: Apply high-performance coatings according to manufacturer's written instructions.

1. Use applicators and techniques best suited for the material being applied.

2. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.

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3. Coating surface treatments and finishes are indicated in the coating system descriptions.

4. Provide finish coats compatible with primers used.

5. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.

C. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

1. The number of coats and film thickness required is the same regardless of application method.

2. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

3.04 FIELD QUALITY CONTROL

A. See Section 01 45 23 - Testing and Inspecting Services, for general requirements for field inspection and testing.

B. Owner reserves the right to invoke the following test procedure at any time and as often as Owner deems necessary during the period when paint is being applied:

1. Owner will engage a qualified independent testing agency to sample paint material being used. Samples of material delivered to project will be taken, identified, sealed, and certified in the presence of Contractor.

2. Owner may direct Contractor to stop painting if test results show material being used does not comply with specified requirements. Contractor shall remove noncomplying paint from project site, pay for testing, and repaint surfaces previously coated with the noncomplying paint. If necessary, Contractor may be required to remove noncomplying paint from previously painted surfaces if, on repainting with specified paint, the two coatings are incompatible.

3.05 CLEANING

A. After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

3.06 PROTECTION

A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

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B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.

C. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

3.07 EXTERIOR PAINT SCHEDULE

A. Wood - Opaque Finish: Walls and Soffits to receive Flat Finish:

1. General: Two finish coats over a primer.

2. Primer: Exterior low VOC, **latex-based** primer as specified for substrate indicated.

3. Finish Coats: Exterior Flat low VOC **acrylic latex-based** paint.

B. Wood - Opaque Finish: Doors and Trim to receive Satin Finish:

1. General: Two finish coats over a primer.

2. Primer: Exterior low VOC, l**atex-based** primer as specified for substrate indicated.

3. Finish Coats: Exterior satin low VOC **waterborne acrylic** enamel.

END OF SECTION

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SECTION 09 96 53 - INTERIOR AND EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Exterior elastomeric coatings.

2. Interior paint system.

B. Related Sections:
1. 03 01 34 “Concrete Repair” for exterior substrates.
2. 07 92 00 “Joint Sealants” for acrylic sealant.
3. 08 51 13 “Aluminum Windows” for coordination of mock-up.

1.2 SUBMITTALS

A. Product Data: For each type of product, manufacturer’s literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; mixing and application instructions; safety precautions for handling, storing, applying, and disposing of materials; and instructions for protecting surrounding areas from overspray. Include:

1. Surfaces to which materials will be applied.
2. Materials List: Inclusive of required materials for each coating system, including crack fillers, and primers. Cross-reference coating system and application. Identify each material by manufacturer’s catalog number and general classification.
3. VOC content of components.
4. Certification by coating manufacturer that products supplied comply with local VOC regulations.
5. Coating manufacturer’s color chart showing full range of colors available.
6. Include material Safety Data Sheets for information only.

B. Samples for Initial Selection: Provide physical samples showing the full range of standard colors available for each type of elastomeric coating and paint system. Note that custom color may be required for the elastomeric coating to match adjacent existing wall coating.

C. Samples for Verification: For each type of elastomeric coating and interior paint system indicated and in each color and gloss.

1. Submit Samples on same type of substrate as that to receive application, 8 inches square.
2. Apply coats on Samples in steps to show each separate coat, including primers and block fillers as applicable.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

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D. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

E. Safety Plan: Written action plan that complies with applicable government regulations and covers operational requirements for safe application of coating materials; means of protection of surrounding areas from overspray and rebound; and handling, storage, and disposal of hazardous and toxic materials.

F. Applicator Qualifications: Evidence that Applicator's existing company has minimum five years of continuous experience in similar coating work; list of at least five representative, successfully-completed projects of similar scope and size, including:

1. Project name.
2. Owner's name.
3. Owner's Representative name, address, and telephone number.
4. Description of work.
5. Elastomeric coating used.
6. Project supervisor.
7. Total cost of coating work and total cost of project.
8. Completion date.

G. Sample Warranties: Copies of coating manufacturer's warranty and Contractor's warranty, both stating obligations, remedies, limitations, and exclusions. Submitted with bid.

1.3 EXTRA MATERIALS

A. Furnish and deliver to Owner one gallon of each color and finish of elastomeric coating material and interior paint system applied. Provide materials in unopened, factory-sealed containers for storage and identify with labels describing contents.

1.4 QUALITY ASSURANCE

A. Applicator Qualifications: Experienced firm that has successfully completed coating work with similar materials, design, and extent to that indicated for Project. Must have successful applications of specified materials in local area in use for minimum of five years.

1. Employ foreman with minimum five years of experience as foreman on similar projects, who is fluent in English, to be on Site at all times during Work. Do not change foremen during the course of the Project except for reasons beyond the control of the Applicator; inform Architect/Engineer in advance of any changes.

B. Adhesion Mockup: At window mockup or other on-building location approved by Owner, install each paint/coating system. Test for adhesion per ASTM D3359, Method A, and achieve minimum adhesion rating of 4A.

C. Window Mockup: Apply each paint/coating system indicated and each color and finish selected surrounding the Aluminum Window mockup to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

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1. Provide elastomeric coating at repaired rough opening for the Aluminum Window mock-up. Note the interior sealant of the mock-up will be partially installed or installed later, at Contractor's option. Coordinate the installation of the interior paint accordingly.

2. Final approval of color selections will be based on mockups.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.

B. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with:
1. Manufacturer's name.
2. Product brand name and type
3. Contents by volume for pigment and vehicle constituents.
4. VOC content.
5. Color name and number.
6. Date of manufacture and batch number.
7. Directions for storing, handling, mixing with other components, and application, including precautions.
8. Thinning instructions (if permitted).

C. Store materials in original, undamaged containers and, if permitted, partially-used materials in tightly-covered containers in clean, dry, well-ventilated, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Protect stored materials from direct sunlight, heat, sparks, and flames.

D. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.

E. Conspicuously mark damaged or opened containers or containers with contaminated materials, and remove from Site as soon as possible.

F. Remove and replace materials that cannot be applied within stated shelf life.

1.6 PROJECT CONDITIONS

A. Verify existing dimensions and details prior to start of coating Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Applicator of changes.

B. Comply with Owner's limitations and restrictions for Site use and accessibility.

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C. Environmental Limitations: Apply paints when existing and forecast weather conditions permit paint to be applied according to manufacturer's written instructions and warranty requirements.

1. Apply coatings only when temperature of surfaces to be coated and ambient air temperatures are between 50 and 90 deg F unless otherwise permitted by manufacturer's written instructions.
2. Do not apply coatings in dew, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
3. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing coating operation.

D. Handle and apply materials in strict accordance with safety requirements required by coating manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.

E. Maintain adequate ventilation during preparation and application of coating materials.

1.7 CHANGES IN WORK

A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.

1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

1.8 WARRANTY

A. Elastomeric Coating
1. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace elastomeric coatings that fail within specified warranty period.
   a. Failures include, but are not limited to, the following:
      1) Water penetration through the coating.
      2) Deterioration of coating beyond normal weathering.
   b. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 ELASTOMERIC COATINGS

A. Product: Use the following or approved equal.
1. Two coats of Thorolastic -750, manufactured by Sika Corporation.

B. Material Compatibility:

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1. Materials for use within each coating system are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each product in a coating system, products are recommended in writing by manufacturer for use and substrate indicated.

C. Colors: Assume custom color is necessary, however if close standard color is available it will be as selected by Architect from manufacturer's full range.

D. Crack Fillers: Elastomeric coating manufacturer's recommended, factory-formulated crack fillers or sealants, including crack filler primers, compatible with substrate and other materials indicated. Thorocoat 746 Knife Grade, SikaWall FL 748, or approved equal.

E. Primer: Elastomeric coating manufacturer's recommended, factory-formulated, alkali-resistant primer compatible with substrate and other materials indicated.

2.2 INTERIOR PAINT

A. Product: Use the following or approved equal:

1. Two coats of ProMar 200 Zero V.O.C. Interior Latex Flat by Sherwin Williams.

B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each product in a paint system, products shall be recommended in writing by manufacturer for use and substrate indicated.

C. Colors:

1. As selected by Architect from manufacturer’s full range. Match existing colors.

D. Primer: ProMar 200 Zero V.O.C. Latex Primer, or approved equal.

2.3 AUXILIARY MATERIALS

A. Use crack fillers and sealants, detail materials, and primers recommended by coating manufacturer.

2.4 SOURCE QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.

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2. Testing agency will perform tests for compliance with product requirements.
3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with manufacturer's requirements for maximum moisture content, alkalinity, and other conditions affecting performance of work.

B. Begin coating only when moisture content of substrate is as follows when measured with an electronic moisture meter:

1. Concrete: 12 percent.
2. Plaster: 12 percent.

C. Begin coating newly placed parge coat no sooner than 28 days after substrate is constructed and is visually dry, unless approved in writing by elastomeric coating manufacturer.

D. Verify that substrate is within the range of alkalinity recommended by manufacturer.

E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

F. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

3.2 PREPARATION

A. Comply with manufacturer's written instructions applicable to substrates and coating/painting systems indicated.

B. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, laitance, chalk, loose/debonded substrates, incompatible paints and encapsulants. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

1. Remove incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated.
2. Perform cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
3. Abrade smooth cementitious, grout, and plaster substrates.

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C. Exterior Crack Repair: Fill cracks greater than 1/32-inch or as recommended by manufacturer in accordance with manufacturer's written instructions before coating surfaces.

3.3 APPLICATION

A. Elastomeric Coatings:

1. Apply elastomeric coatings in accordance with manufacturer's written instructions.
   a. Use equipment and techniques best suited for substrate and type of material being applied.
   b. Coat surfaces behind movable items the same as similar exposed surfaces.
   c. Apply each coat separately in accordance with manufacturer's written instructions.
2. Primers: Apply at a rate to ensure complete coverage.
3. Elastomeric Finish Coat(s): Minimum two coats with a total dry film thickness of 16 to 20 mils, or as required by manufacturer.
4. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats similar to color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
5. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform finish, color, and appearance.
6. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
7. Apply coatings to prepared surfaces as soon as practicable after preparation and before subsequent surface soiling or deterioration.

B. Interior Paint:

1. Apply paints according to manufacturer’s written instructions. Use applicators and techniques suited for paint and substrate indicated.
2. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat but provide sufficient difference in shade of undercoats to distinguish each separate coat.
3. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
4. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint/coatings for dry film thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.
2. If test results show that dry film thickness of applied paint does not comply with paint/coating manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

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3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from coating application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities, touch up and restore damaged or defaced coated surfaces.

3.6 SCHEDULE

A. Elastomeric Coating Schedule:
   1. Concrete Substrates:
      a. Elastomeric Coating System:
         1) Prime Coat: As recommended in writing by topcoat manufacturer.
         2) Intermediate Coat: Thorolastic 750, or equal.
         3) Topcoat: Elastomeric, pigmented, exterior, water-based, flat coating; Thorolastic 750, or equal.

B. Interior Painting Schedule:
   1. Gypsum Board and Plaster Substrates:
      a. Institutional Low-Odor/Zero VOC Latex System:
         1) Prime Coat: ProMar 200 Zero VOC Latex Primer, or equal.
         2) Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
         3) Topcoat: Latex, interior, institutional low odor/VOC, flat (MPI Gloss Level 1), ProMar 200 Zero V.O.C. Interior Latex Flat.

END OF SECTION 09 96 53

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SECTION 10 14 00
SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Restroom and associated wall signs.

1.02 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

1.03 SUBMITTALS

A. See Division 1 - Submittals, for submittal procedures.

B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.

1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
3. Submit for approval by Owner through Architect prior to fabrication.

D. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment. Samples can be used in installation.

E. Selection Samples: Match existing building sign colors.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by floor or building.

C. Store tape adhesive at normal room temperature.

1.06 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Flat Signs:

1. Rowmark. Ultra-Mattes Front, "Driftwood Alpine"
2. Substitutions: See Section 01 60 00 - Product Requirements.

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2.02 SIGNAGE APPLICATIONS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room and Wall Signs: Provide signs to replace existing restroom signage and conform to current codes.
   1. Sign Type: Flat signs with engraved panel media as specified.
   2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille.
   3. Character Height: 5/8-inch or minimum allowed by code.
   4. Sign Height: 2 inches or otherwise minimum allowed by code, unless otherwise indicated.
   5. Rest Rooms: Identify with pictograms, and as indicated on sheet G003.1, and braille.

2.03 SIGN TYPES

A. Flat Signs: Signage media without frame.
   1. Edges: Beveled.
   2. Corners: Radiused.
   3. Wall Mounting of One-Sided Signs: Tape adhesive.

B. Color and Font: Unless otherwise indicated:
   1. Character Font: Helvetica, Arial, or other sans serif font.
   2. Character Case: Upper case only.
   3. Background Color: match existing color.
   4. Character Color: Contrasting color: match existing color.

2.04 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:
   1. Product: Ultra-Mattes Front, “Driftwood Alpine".
   2. Total Thickness: 1/8 inch.

2.05 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

B. Exposed Screws: compatible with associate finishes and as approved by Owner/Architect.

C. Tape Adhesive: Double sided tape, permanent adhesive.

D. Back-panels for signs mounted on glass.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Locate signs and mount at heights indicated on drawings and in accordance with ADA Standards and ICC A117.1.

D. Protect from damage until Substantial Completion; repair or replace damaged items.

END OF SECTION

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SECTION 10 21 13
TOILET COMPARTMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Compact Laminate (Solid Phenolic), Moisture Resistant Substrate:
   1. Toilet partitions.
   2. Urinal privacy screens.

1.2 RELATED SECTIONS

A. Section 07 92 00 – Joint Sealants

B. Section 09 21 16 – Gypsum Board Assemblies

C. Section 09 30 00 – Tiling

D. Section 10 28 00 – Commercial Toilet Accessories

1.3 SUBMITTALS

A. Submit under provisions Division 1 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Shop Drawings: Submit manufacturer's shop drawings for each product specified, including the following:
   1. Plans, elevations, details of construction and attachment to adjacent construction.
   2. Show anchorage locations and accessory items.
   3. Verify dimensions with field measurements prior to final production of toilet compartments.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 10 year experience manufacturing similar products.

B. Installer Qualifications: Minimum 2 year experience installing similar products.

C. Single Source Requirements: To the greatest extent possible provide products from a single manufacturer.

D. Accessibility Requirements: Comply with requirements applicable in the jurisdiction of the

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project, including but not limited to ADA and ICC/ANSI A117.1 requirements as applicable.

E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
   1. Finish areas designated by Architect.
   2. Do not proceed with remaining work until workmanship is approved by Architect.
   3. Refinish mock-up area as required to produce acceptable work.

1.5 PRE-INSTALLATION MEETINGS

A. Convene minimum two weeks prior to starting work of this section.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

B. Handling: Handle materials to avoid damage.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard 25 year limited warranty for panels, doors, and stiles against breakage, corrosion, delamination, and defects in factory workmanship. Manufacturer's standard 1 year guarantee against defects in material and workmanship for stainless steel door hardware and mounting brackets.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design Products: Based on the quality and performance requirements of the project, specifications are based on the products of Bobrick Washroom Equipment, Inc. 1082G.67P Duraline Series phenolic toilet partitions.

B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 COMPACT LAMINATE (SOLID PHENOLIC), MOISTURE RESISTANT SUBSTRATE (DuraLineSeries)

A. Compact Laminate (Solid Phenolic) Toilet Partitions:
   1. Design Type::
      a. Standard Height.
         1) Door/Panel Height: 58 inches (147 cm).
         2) Floor Clearance: 12 inches (30 cm).
   2. Privacy Style Partitions: No sightlines with gap-free interlocking doors and stiles routed 0.300 inches (7.6 mm) from the edge to allow for 0.175 inch (4.4 mm) overlap to prevent line-of-sight into the toilet compartment. Privacy strips fastened or adhered onto the partition material are not acceptable.

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3. Mounting Configuration:
    a. Floor-mounted, overhead-braced with satin finish, extruded anodized aluminum headrails, 0.065 inch (1.65 mm) thick with anti-grip profile.
        1) Stile Maximum Height: 83 inches (211 cm).

B. Compact Laminate (Solid Phenolic) Urinal Screens:
1. Mounting Configuration:
    a. Wall-hung.
        1) Screen Height: 48 inches (122 cm) with 12 inches (30 cm) floor clearance.

C. Materials: Solidly fused plastic laminate with matte-finish melamine surfaces; integrally bonded colored face sheets and black phenolic-resin core.

D. Edges: Black; brown edges not acceptable.

E. Color:
1. To Be selected from manufacturer's standard colors

F. Fire Resistance:
1. National Fire Protection Association/International Building Code Interior Wall and Ceiling Finish: Class B / Uniform Building Code: Class II.
    a. Flame Spread Index (ASTM E 84): 30 for panels and stiles.
    b. Smoke Developed Index (ASTM E 84): 55 for panels, 20 for stiles.

G. Finished Thickness:
1. Stiles and Doors: 3/4 inch (19 mm).
2. Panels and Screens: 1/2 inch (13 mm).

H. Stiles: Floor-anchored stiles furnished with expansion shields and threaded rods.
1. Leveling Devices: 7 gauge, 3/16 inches (5 mm) thick, corrosion-resistant, chromate-treated, double zinc-plated steel angle leveling bar bolted to stile; furnished with 3/8 inch (10 mm) diameter threaded rods, hex nuts, lock washers, flat washers, spacer sleeves, expansion anchors, and shoe retainers.
2. Stile Shoes: One-piece, 22 gauge (0.8 mm), 18-8, Type 304 stainless steel, 4 inch (102 mm) height; tops with 90 degree return to stile. One-piece shoe capable of adapting to 3/4 inch (19 mm) or 1 inch (25 mm) stile thickness and capable of being fastened (by clip) to stiles starting at wall line.

I. Anchors: Expansion shields and threaded rods at floor connections as applicable. Threaded rods secured to supports above ceiling as applicable. Supports above ceiling furnished and installed as Work of Section 05 50 00 - Metal Fabrications.

J. Hardware: All hardware to be concealed inside toilet compartment by use of factory installed threaded brass inserts, tested up to 1,500 pounds of pull force each. Exposed hardware unacceptable. Exception: Outswing doors.
1. Compliance: Operating force of less than 5 lb (2.25 kg).
2. Emergency Access: Hinges, latch allow door to be lifted over keeper from outside compartment on inswing doors.
3. Materials: 18-8, Type 304, heavy-gauge stainless steel with satin finish.
4. Doorstops: Prevents inswinging doors from swinging out beyond stile; on outswing doors, doorstop prevents door from swinging in beyond stile.
5. Fastening: Hardware is secured to door and stile with pin-in-head Torx stainless steel machine screws. Hinges, latch and optional door stops secured to door with pin-in-

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head Torx stainless steel machine screws into factory-installed, threaded brass inserts. Fasteners for hinges, latch and optional door stops secured directly into core not acceptable.
   a. Threaded Brass Inserts: Factory-installed; withstand direct pull force exceeding 1500 lb (680 kg) per insert.
6. Clothes Hooks: Projecting no more than 1-1/8 inch (29 mm) from face of door.
7. Door Latch: Track of door latch prevents inswing doors from swinging out beyond stile; on outswing doors, door keeper prevents door from swinging in beyond stile; 16 gauge (1.6 mm) sliding door latch, 14 gauge (2 mm) keeper.
8. Locking: Door locked from inside by sliding door latch into keeper.
9. Hinge Type:
   a. Standard.
      1) Balanced, with field-adjustable cam to permit door to be fully closed or partially open when compartment is unoccupied.
10. Mounting Brackets:
   a. Full-Height.
      1) Mounting Brackets: 18 gauge (1.2 mm) stainless steel and extend full height of panel.
      2) U-Channels: Secure panels to stiles.
      3) Angle Brackets: Secure stiles-to-walls and panels to walls.

PART 3 PRODUCTS

3.1 PREPARATION

A. Prepare substrates including but not limited to blocking and supports in walls and ceilings at points of attachment using methods recommended by the manufacturer for achieving the best result for the substrates under the project conditions.
   1. Inspect areas scheduled to receive compartments for correct dimensions, plumbness of walls, and soundness of surfaces that would affect installation of mounting brackets.
   2. Verify spacing of plumbing fixtures to assure compatibility with installation of compartments.

B. If preparation is the responsibility of another installer, notify Architect and City of Berkeley in writing of deviations from manufacturer's recommended installation tolerances and conditions.

C. Do not proceed with installation until substrates have been properly prepared with blocking and supports in walls and ceilings at points of attachment and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.

3.2 INSTALLATION

A. Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:
   1. Verify blocking and supports in walls and ceilings has been installed properly at points of attachment.
   2. Verify location does not interfere with door swings or use of fixtures.
   3. Use fasteners and anchors suitable for substrate and project conditions
   4. Install units rigid, straight, plumb, and level.
   5. Conceal evidence of drilling, cutting, and fitting to room finish.
   6. Test for proper operation.

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3.3 ADJUSTING, CLEANING AND PROTECTION

A. Adjust hardware for proper operation after installation. Set hinge cam on in-swinging doors to hold doors open when unlatched. Set hinge cam on out-swinging doors to hold unlatched doors in closed position.

B. Touch-up, repair or replace damaged products.

C. Clean exposed surfaces of compartments, hardware, and fittings.

END OF SECTION

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SECTION 10 28 00
COMMERCIAL TOILET ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories.
B. Diaper changing stations.
C. Utility room accessories.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
B. Section 08 83 00 - Mirrors.
C. Section 09 30 00 - Tiling.
D. Section 10 21 13 - Toilet Compartments; Coat hooks and bumpers provided with stall compartments.

1.03 REFERENCE STANDARDS

A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
B. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service; 2022.
C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
D. ASTM A666/A666M - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2024.
E. ASTM B86 - Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings; 2022.
F. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium; 2017 (Reapproved 2022).
G. ASTM D4802 - Standard Specification for Poly(Methyl Methacrylate) Acrylic Plastic Sheet; 2016.
H. ASTM D5047 - Standard Specification for Polyethylene Terephthalate Film and Sheeting; 2017.
I. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use; 2022.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with the placement of internal wall reinforcement and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

A. LEED Submittal: LEED Material Buyout Form (MBoF) with all itemized materials provided to the project. A complete submittal includes all manufacturer names and specific product names in the MBoF and the following supporting documentation for associated LEED credits:
   1. Environmental Product Declarations (EPD): Provide valid, unexpired EPD.

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2. Material Ingredients: Provide manufacturer's Declare label, Health Product Declaration (HPD), Cradle to Cradle Certification, or Cradle to Cradle Health Product Certificate.

B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

C. Shop Drawings: Identify where cutouts are required in other work, including templates, substrate preparation instructions, and directions for preparing cutouts and installing anchorage devices.

D. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

E. Maintenance Data: Instructions, including replaceable parts and service recommendations.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. General: Only a maximum 1-1/2-inch-diameter, unobtrusive stamped manufacturer logo, as approved by Architect, is permitted on exposed face of toilet or bath accessory units. On either interior surface not exposed to view or back surface, provide additional identification by either a printed, waterproof label or a stamped nameplate, indicating manufacturer's name and product model number.

B. Commercial Toilet, Shower, and Bath Accessories:
1. Bobrick; www.bobrick.com is Basis of Design.
2. American Specialties, Inc: www.americanspecialties.com/#sle.
3. Bradley Corporation: www.bradleycorp.com/#sle.

C. Diaper Changing Stations:
1. Koala Kare Products: www.koalabear.com/#sle.

D. Provide products of each category type by single manufacturer.

2.02 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
1. Grind welded joints smooth.
2. Fabricate units made of metal sheet of seamless sheets with flat surfaces.

B. Keys: Provide 3 keys for each accessory to City; master key lockable accessories.

C. Stainless Steel Sheet: ASTM A666/A666M, Type 304.

D. Stainless Steel Tubing: ASTM A269/A269M, Grade TP304 or TP316.

E. Galvanized Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.

F. Zinc Alloy: Die cast, ASTM B86.

G. Acrylic Plastic Sheet: ASTM D4802.

H. PETG Plastic Sheet: ASTM D5047.

I. Adhesive: Two component epoxy type, waterproof.

J. Fasteners, Screws, and Bolts: Screws, bolts, and other devices of same material as accessory unit, or of galvanized steel where concealed; tamper-proof; security type.

2.03 FABRICATION

A. Surface-Mounted Toilet Accessories, General: Except where otherwise indicated, fabricate units with tight seams and joints, exposed edges rolled. Hang doors or access panels with continuous stainless steel piano hinge. Provide concealed anchorage wherever possible.

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B. Recessed and Semi-Recessed Toilet Accessories, General: Except where otherwise indicated, fabricate units of all-welded construction, without mitered corners. Hang doors or access panels with full-length, stainless steel piano hinge. Provide anchorage that is fully concealed when unit is closed.

2.04 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.
B. Chrome/Nickel Plating: ASTM B456, SC 2, polished finish, unless otherwise noted.
C. Powder-Coated Steel: Clean, degrease, and neutralize. Follow immediately with a phosphatizing treatment, prime coat, and two finish coats of powder coat enamel.
D. Galvanizing for Items Other than Sheet: Comply with ASTM A123/A123M; galvanize ferrous metal and fastening devices.
E. Back paint components where contact is made with building finishes to prevent electrolysis.

2.05 COMMERCIAL TOILET ACCESSORIES

A. Combination Toilet Paper/Seat Cover Dispenser with Napkin Disposal: Double roll; Through-Partition mounted, stainless steel; seamless wall flanges, continuous piano hinges. Vertical configuration
   1. Minimum capacity: 1000 seat covers.
   2. Toilet paper rolls: 4 (two for each stall)
   3. Napkin disposal capacity: 0.8 gallons.
   4. Products:
B. Combination Toilet Paper/Seat Cover Dispenser with Napkin Disposal: Double roll; Recessed flush with wall, stainless steel; seamless wall flanges, continuous piano hinges. Horizontal configuration.
   1. Minimum capacity: 500 seat covers.
   2. Napkin disposal capacity: 0.8 gallons.
   3. Products:
      a. Bobrick: B-3091.
C. Grab Bars: Stainless steel, smooth surface.
   1. Heavy Duty Grab Bars: Floor supports are not acceptable.
      a. Push/Pull Point Load: Minimum 250 pound-force, minimum.
      b. Dimensions: 1-1/2 inch outside diameter, minimum 0.125 inch wall thickness, concealed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
      c. Length and Configuration: As indicated on drawings.
      d. Products:
         1) Bobrick Model B-6806 series.

2.06 UNDER-LAVATORY PIPE AND SUPPLY COVERS

A. See plumbing drawings.

2.07 DIAPER CHANGING STATIONS

A. Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285. Unit to provide smooth concave changing area, nylon safety strap, two hooks for bags, and instruction graphics
   1. Material: Stainless steel.
   2. Mounting: Surface.
   3. Minimum Rated Load: 250 pounds.
   4. Products:

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a. **Koala Care Model Model KB310SSWM**

2.08 ACCESSORIES LIST WOMEN'S

A. SB-357 - Combo toilet tissue, sanitary disposal and seat cover
B. B-270 - sanitary disposal
C. B-2888 - double roll toilet tissue
D. B-221 - seat cover dispenser
E. B-6806 x 48 grab bar
F. B6806 x 36 grab bar
G. Koala KB310SSWM stainless steel wall mounted baby changing station
H. B-2706C - ADA compliant sanitary napkin dispenser

2.09 ACCESSORIES LISTS MEN'S

A. B-2888 - double roll toilet tissue
B. B-221 - seat cover dispenser
C. B-3091 - combo toilet tissue, waste and seat cover dispenser
D. B-6806 x 48" grab bar
E. B-6806 X 36" grab bar
F. Koala KB310SSWM stainless steel wall mounted baby changing station

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work. Proceed with installation only after unsatisfactory conditions have been corrected.
B. Verify exact location of accessories for installation.
C. See drawing details for installation of blocking, reinforcing plates, and concealed anchors in walls and ceilings.

3.02 PREPARATION

A. Deliver inserts and rough-in frames to site for timely installation.
B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.
B. Install plumb and level, securely and rigidly anchored to substrate.
C. Mounting Heights: As required by accessibility regulations, and as indicated on the drawings.
D. Apply sealant to perimeter between accessories and wall surface where accessory edge is permanent.

3.04 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

3.05 ADJUSTMENT AND CLEANING

A. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly. Replace damaged or defective items.

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B. Clean and polish all exposed surfaces strictly according to manufacturer's recommendations after removing temporary labels and protective coatings.
C. Construction Waste Management: Manage construction waste in accordance with provisions of Section 01 74 19 - NTU Construction Waste Management and Disposal.

END OF SECTION

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SECTION 03 01 30

REPAIR OF CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Corrosion-inhibiting coating and bonding agent.
   2. Patching mortar.
   3. Epoxy crack-injection materials.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices.
   1. Unit prices apply to authorized work covered by estimated quantities.
   2. Unit prices apply to authorized additions to and deletions from the Work as authorized by Change Orders.

B. General: Unit prices include the cost of preparing existing construction to receive the Work indicated and costs of field quality control required for units of Work completed.

C. Perform the following Work on unit price basis:
   1. Partial-depth, vertical-surface repairs. Payment based on vertical-surface elevation area of repair.
   2. Partial-depth, overhead-surface repairs (head/soffit). Payment based on overhead-surface area of repair.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordinate Work to ensure that adjacent areas are not adversely affected. Coordinate:
   1. With Owner’s Representative.
   2. With other trades:
      a. To ensure that work done by other trades is complete and ready for concrete repair Work.
      b. To avoid or minimize work on, or in immediate vicinity of, concrete repair Work in progress.
      c. To ensure that subsequent work will not adversely affect completed concrete repairs.

B. Preinstallation Conference: Conduct conference at Project site.
   1. Review methods and procedures related to concrete work, including, but not limited to, the following:
      a. Construction schedule.
      b. Verify concrete-repair specialist's personnel, equipment, and facilities needed to make progress and avoid delays.
      c. Site use, access, staging, and set-up location limitations.
      d. Forecast weather conditions.
      e. Concrete removal, surface preparation, and substrate condition.
      f. Repair types and proposed material/approaches for repair.

g. Materials, material application, sequencing, tolerances, and required clearances.
h. Special details.
i. Minimum curing period.
j. Temporary protection and repair of damaged concrete repairs.
k. Structural loading limitations.
l. Government limitations.
m. Quality-control program.
n. Coordination with building occupants.
o. Required submittals.
p. Testing and inspection requirements.
q. Hold points for observation by Architect.

1.4 ACTION SUBMITTALS

A. Product Data:
1. For each type of product.
a. Include construction details, material descriptions, chemical composition, physical properties, test data, and mixing, preparation, project application types consisting of horizontal, vertical or overhead locations and application instructions.

B. Shop Drawings:
1. Shoring and Bracing: Provide Drawings or documentation to ensure that structure and temporary supports withstand the anticipated loads during construction and the effect of demolition on the capacity of the structure. Submit design calculations, sealed by an engineer licensed in state of Project, for shoring and bracing where required by the extent of structural repairs or removal of deteriorated concrete and subsequent replacement.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For concrete-repair specialist.

B. Product Test Reports: For each cementitious patching mortar and crack-injection adhesive, for tests performed by manufacturer and witnessed by a qualified testing agency.

C. Field quality-control reports.

D. Quality-Control Program: Submit before work begins.

1.6 QUALITY ASSURANCE

A. Concrete-Repair Specialist Qualifications: Engage an experienced concrete-repair firm that employs installers and supervisors who are trained and approved by manufacturer to apply packaged patching-mortar crack-injection adhesive and corrosion-inhibiting treatments when performing the Work of this Section. Firm must have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience in only installing or patching new concrete is insufficient experience for concrete-repair work.
1. Field Supervision: Concrete-repair specialist firm must maintain experienced full-time supervisors on Project site during times that concrete-repair work is in progress.

B. Quality-Control Program: Prepare a written plan for concrete repair to systematically demonstrate the ability of personnel to properly perform repair work, including each phase or

process, protection of surrounding materials during operations, and control of debris and runoff during the Work. Describe in detail materials, methods, equipment, and sequence of operations to be used for each phase of the Work.

C. Hold points for Architect/Engineer Observation during work:
   1. Identification of repair areas.
   2. Concrete and reinforcing steel reinforcing surface preparation.
   3. Concrete Placement.

1.7 MOCKUPS

A. First mock-up to occur at the rough opening for the window mock-up specified in Section 085113.

B. For any remaining repair details, build first-in-place mockups for each concrete repair detail to demonstrate aesthetic effects and to set quality standards for materials and execution. Coordinate mockups so that multiple mockups are available for review on the same site visit, wherever possible.
   1. Concrete Removal and Patching Mockup: Remove a total of approximately 2 sq. ft. area of deteriorated concrete wall and prepare surfaces and reinforcing for patching. Patch approximately 1 sq. ft., so that Architect can observe surface preparation and completed patch on same site visit.
   2. Variations on Flat Concrete Patching Mockup: Repeat the Concrete Removal and Patching Mockup process above for each variation in configuration of concrete patches (2-sided corner, ornamental, etc.).
   3. Epoxy Crack Injection Mockup: Perform epoxy crack-injection material in two separate areas, each approximately 12 inches long.
   4. Photograph concealed portions of mock-up before concealing, and retain photographs at Site, regardless of observation by Architect and inspection by Testing Agency or Special Inspector.
   5. If Architect or Owner's Representative determines mock-up does not comply with requirements, modify mock-up or construct new mock-up until mock-up is approved. Remove and replace mock-ups that are not approved.
   6. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
   7. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials according to manufacturer's recommendations and in such manner as to prevent damage to materials or structure.

B. Handle and place materials in strict accordance with safety requirements required by material manufacturers; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.

C. For packaged materials:

1. Deliver materials to Site in original bags and containers with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
2. Store materials in original, undamaged bags or containers in a clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Manufacturer's standard packaging and covering is not considered adequate weather protection.
3. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, or handling. Reject and remove from Site new materials which have been exposed to moisture, or exhibit evidence of moisture contamination.
4. Conspicuously mark damaged, contaminated or opened bags or containers and remove from Site as soon as possible.
5. Remove materials that cannot be applied within stated shelf life from Site and replace with new materials.

1.9 FIELD CONDITIONS

A. Verify existing dimensions and details prior to the start of concrete repair Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor of changes.

B. Comply with Owner's limitations and restrictions for Site use and accessibility.

C. Environmental Limitations for Epoxies: Do not apply when air and substrate temperatures are outside limits permitted by manufacturer. During hot weather, cool epoxy components before mixing, store mixed products in shade, and cool unused mixed products to retard setting. Do not apply to wet substrates unless approved by manufacturer.
   1. Use only Class A epoxies when substrate temperatures are below or are expected to go below 40 deg F within eight hours.
   2. Use only Class A or B epoxies when substrate temperatures are below or are expected to go below 60 deg F within eight hours.
   3. Use only Class C epoxies when substrate temperatures are above and are expected to stay above 60 deg F for eight hours.

D. Cold-Weather Requirements for Cementitious Materials:
   1. Do not apply unless concrete surface and air temperatures are above 40 deg F and will remain so for at least 48 hours after completion of Work.

E. Hot-Weather Requirements for Cementitious Materials: Protect repair work when temperature and humidity conditions produce excessive evaporation of water from patching materials. Provide artificial shade and wind breaks, and use cooled materials as required. Do not apply to substrates with temperatures of 90 deg F and above.

1.10 CHANGES IN WORK

A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.

B. Notify Architect of conditions that may interfere with proper execution of the Work or jeopardize performance of the Work, prior to proceeding with the Work.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. For repair products, obtain each color, grade, finish, type, and variety of product from single source and from single manufacturer with resources to provide products of consistent quality in appearance and physical properties.

2.2 PATCHING MORTAR

A. Patching Mortar Requirements:
   1. Only use patching mortars that are recommended by manufacturer for each applicable horizontal, vertical, or overhead use orientation.
   2. Do not use proprietary repair materials that contain added gypsum.

B. Formed Vertical and Overhead Repairs:

   1. Polymer-Modified, Cementitious Self Consolidating Concrete; or Pourable, Pumpable, Self-Consolidating Repair Mortar; with Integral Corrosion Inhibitor and Pre-Blended Aggregate.
      a. Basis-of-Design Product: Subject to compliance with requirements, provide Sika Corporation; Sikacrete-211 SCC Plus or a comparable product by one of the following:
         1) Sika Corporation (Basis of Design).
         2) JE Tomes & Associates.
         3) Approved equal.

   2. Final repair shall contain coarse aggregate either pre-blended by manufacturer or added during batching.
      a. Coarse Aggregate for Patching Mortar: ASTM C33/C33M, Size No. 8, Class 5S washed aggregate. Add to patching-mortar mix only as permitted by patching-mortar manufacturer.

   3. Performance Requirements:
      a. Bond Strength: 300 psi per ASTM C1583, or 1,000 psi per ASTM C882.
      b. Compressive Strength: Minimum of 4,000 psi at 28 days per ASTM C39
      c. Flexural Strength: Minimum 1,000 psi per ASTM C293.
      d. Flowability:
         a. Self-consolidating with slump flow of approximately 20 to 30 inches.
         b. Capable of placement without mechanical vibration.
      e. Shrinkage: Less than or equal to 0.05% per ASTM C153.
      f. Rapid Chloride Permeability: Less than 650 Coulombs per ASTM C1202 AASHTO T-277.

C. Trowel-Applied Vertical and Overhead Repairs:

1. Polymer-Modified, Cementitious Patching Mortar: Packaged, dry mix for repair of concrete and that contains a latex additive as either a dry powder or a separate liquid that is added during mixing.
   a. Basis-of-Design Product: Subject to compliance with requirements, provide Sika Corporation; SikaTop-123 Plus or a comparable product by one of the following:
      1) Sika Corporation (Basis of Design).
      2) JE Tomes & Associates.
      3) Approved equal.

2. Performance Requirements:
   a. Bond Strength: Minimum 500 psi per ASTM C1583.
   b. Compressive Strength: Minimum 4,000 psi at 28 days per ASTM C109/C109M.
   c. Flexural Strength: Minimum 1,000 psi per ASTM C293.
   d. Shrinkage: Less than or equal to 0.05% per ASTM C153.
   e. Application Thickness for Vertical/Overhead Use:
      1) Minimum lift thickness: No more than 1/8 inch.
      2) Maximum lift thickness: No less than 1.5 inch.
   f. Durability: Suitable for exterior exposure including wet/dry cycling.

2.3 EPOXY CRACK-INJECTION MATERIALS

A. Epoxy Crack-Injection Adhesive: ASTM C881/C881M, bonding system Type I, free of VOCs.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. Sikadur-35 Hi-Mod LV; by Sika Corporation.
   b. Sikadur 52; by Sika Corporation.
   c. Kemko 068 Lo Vis IR; by ChemCo Systems, Inc.
   d. Approved equal.

2. Capping Adhesive: Product manufactured for use with crack-injection adhesive by same manufacturer.

2.4 MISCELLANEOUS MATERIALS

A. Curing Materials: For packaged repair materials.

B. Formwork Materials: Form-facing materials must comply with ACI 301 requirements.

C. Water: Potable.

D. Cleaning Agent: Commercial muriatic acid solution.

2.5 MIXES

A. General: Mix products, in clean containers, in accordance with manufacturer's written instructions.
   1. Do not add water, thinners, or additives unless recommended by manufacturer.
   2. When practical, use manufacturer's premeasured packages to ensure that materials are mixed in proper proportions. When premeasured packages are not used, measure

ingredients using graduated measuring containers; do not estimate quantities or use shovel or trowel as unit of measure.

3. Do not mix more materials than can be used within time limits recommended by manufacturer. Discard materials that have begun to set.

B. Dry-Pack Mortar: Mix required type(s) of patching-mortar dry ingredients with just enough liquid to form damp cohesive mixture that can be squeezed by hand into a ball but is not plastic.

PART 3 - EXECUTION

3.1 CONCRETE REPAIR

A. Have concrete-repair work performed only by qualified concrete-repair specialist.

B. Comply with manufacturers' written instructions for surface preparation and product application.

3.2 EXAMINATION

A. Notify Architect seven days in advance of dates when areas of deteriorated or delaminated concrete and deteriorated reinforcing bars will be located.

B. Locate areas of deteriorated or delaminated concrete using hammer or chain-drag sounding and mark boundaries. Mark areas for removal by simplifying and squaring off boundaries. At columns and walls, make boundaries level and plumb unless otherwise indicated.

C. Pachometer Testing: Locate at least three reinforcing bars using a pachometer, and drill test holes to determine depth of cover. Calibrate pachometer using depth of cover measurements, and verify depth of cover in removal areas using pachometer.

D. Perform surveys as the Work progresses to detect hazards resulting from concrete-repair work.

3.3 PREPARATION

A. Ensure that supervisory personnel are on-site and on duty when concrete-repair work begins and during its progress.

B. Protect persons, motor vehicles, surrounding surfaces of building being repaired, building site, plants, and surrounding buildings from harm resulting from concrete-repair work.

1. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
2. Use only proven protection methods appropriate to each area and surface being protected.
3. Provide temporary barricades, barriers, and directional signage to exclude public from areas where concrete-repair work is being performed.
4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of concrete-repair work.
5. Contain dust and debris generated by concrete-repair work and prevent it from reaching the public or adjacent surfaces.

6. Use water-mist sprinkling and other wet methods to control dust only with adequate, approved procedures and equipment that ensure that such water will not create a hazard or adversely affect other building areas or materials.
7. Protect floors and other surfaces along haul routes from damage, wear, and staining.
8. Provide supplemental sound-control treatment to isolate removal and dismantling work from other areas of the building.
9. Protect adjacent surfaces and equipment by covering them with heavy polyethylene film and waterproof masking tape. If practical, remove items, store, and reinstall after potentially damaging operations are complete.
10. Neutralize and collect alkaline and acid wastes for disposal off Owner's property.
11. Dispose of debris and runoff from operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

C. Existing Drains: Prior to the start of concrete-repair work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin concrete-repair work in an area until the drainage system is in working order.
1. Prevent solids, such as aggregate or mortar residue, from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from concrete-repair work.
2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

D. Preparation for Concrete Removal: Examine construction to be repaired to determine best methods to safely and effectively perform concrete-repair work. Examine adjacent work to determine what protective measures will be necessary. Make explorations, probes, and inquiries as necessary to determine condition of construction to be removed in the course of repair.
1. Verify that affected utilities have been disconnected and capped.
2. Inventory and record the condition of items to be removed for reinstallation or salvage.
3. Provide and maintain shoring, bracing, and temporary structural supports as required to preserve stability and prevent unexpected or uncontrolled movement, settlement, or collapse of construction being demolished and construction and finishes to remain. Strengthen or add new supports when required during progress of removal work.

E. Reinforcing-Bar Preparation: Remove loose and flaking rust from exposed reinforcing bars by high-pressure water cleaning, abrasive blast cleaning, needle scaling or wire brushing until only tightly adhered light rust remains.
1. Where section loss of reinforcing bar is more than 25 percent, or 20 percent in two or more adjacent bars, cut bars and remove and replace. Notify Architect for further direction.
2. Remove additional concrete as necessary to provide at least 3/4-inch clearance at exposed existing bars and replacement bars.
3. Splice replacement bars to existing bars in accordance with ACI 318 by lapping, welding, or using mechanical couplings.

3.4 REMOVAL OF CONCRETE

A. Do not overload structural elements with debris.

B. Adjust the outline of each repair area to create a simple, rectangular outline without reentrant corners.

1. Where the configuration of repairs would cause the elimination of reentrant corners to significantly increase the repair size, the Contractor may:
    a. Place one rectangular patch.
    b. Allow the first patch to cure for enough time so that most of the shrinkage occurs, to reduce the risk of a crack forming between the two patches.
    c. Place the second rectangular patch.
    d. Allow the second patch to cure for enough time that most of the shrinkage occurs.
    e. If a crack forms between the two rectangular patches, repair the crack according to applicable crack repair sections.

C. Saw-cut perimeter of areas indicated for removal to a depth of at least 1/2 inch. Make cuts perpendicular to concrete surfaces and no deeper than cover on reinforcement.

D. Remove deteriorated and delaminated concrete by breaking up and dislodging from reinforcement.

E. Remove additional concrete if necessary to provide a depth of removal of at least 2 inches over entire removal area.

F. Where half or more of the perimeter of reinforcing bar is exposed, bond between reinforcing bar and surrounding concrete is broken, or reinforcing bar is corroded, remove concrete from entire perimeter of bar and to provide at least 3/4-inch clearance around bar.

G. Test areas where concrete has been removed by tapping with hammer, and remove additional concrete until unsound and disbonded concrete is completely removed.

H. Provide surfaces with a fractured profile of at least 1/8 inch that are approximately perpendicular or parallel to original concrete surfaces. At columns and walls, make top and bottom surfaces level unless otherwise directed.

I. Thoroughly clean removal areas of loose concrete, dust, and debris.

3.5 APPLICATION OF BONDING AGENTS

A. Epoxy-Modified, Cementitious Bonding and Anticorrosion System: Apply to reinforcing bars by stiff brush in accordance with manufacturer's written instructions.
    1. Apply to reinforcing bars in two coats, allowing first coat to dry two to three hours before applying second coat.
    2. Take special care to coat the underside/backside of the totally exposed reinforcing bars.
    3. Apply patching mortar onto freshly placed cementitious bonding and anticorrosion system as soon as possible, and within the maximum recommended open time indicated in the manufacturer's instructions.

3.6 INSTALLATION OF PATCHING MORTAR

A. Place patching mortar as specified in this article unless otherwise recommended in writing by manufacturer.
    1. Provide forms where necessary to confine patch to required shape.
    2. Wet substrate and forms thoroughly and then remove standing water.

B. General Placement: Place patching mortar by troweling toward edges of patch to force intimate contact with edge surfaces. For large patches, fill edges first and then work toward center,

always troweling toward edges of patch. At fully exposed reinforcing bars, force patching mortar to fill space behind bars by compacting with trowel from sides of bars.

C. Vertical Patching: Place material in lifts of not more than 1-1/2 inches or less than 1/8 inch, and as recommended by patching mortar manufacturer. Do not feather edge.

D. Consolidation: After each lift is placed, consolidate material and screed surface.

E. Multiple Lifts: Where multiple lifts are used, score surface of lifts to provide a rough surface for placing subsequent lifts. Allow each lift to reach final set before placing subsequent lifts.

F. Finishing: Allow surfaces of lifts that are to remain exposed to become firm and then finish to a surface matching adjacent concrete.

G. Curing: Wet-cure cementitious patching materials, including polymer-modified cementitious patching materials, for not less than seven days by water-fog spray or water-saturated absorptive cover.

3.7 APPLICATION OF EPOXY CRACK-INJECTION MATERIALS

A. Clean cracks with oil-free compressed air or low-pressure water to remove loose particles.

B. Clean areas to receive capping adhesive of oil, dirt, and other substances that would interfere with bond.

C. Place injection ports as recommended by epoxy manufacturer, spacing no farther apart than thickness of member being injected. Seal injection ports in place with capping adhesive.

D. Seal cracks at exposed surfaces with a ribbon of capping adhesive at least 1/4 inch thick by 1 inch wider than crack.

E. Inject cracks wider than 0.010 inch to a depth of at least 2 inches.

F. Inject epoxy adhesive, beginning at widest part of crack and working toward narrower parts. Inject adhesive into ports to refusal, capping adjacent ports when they extrude epoxy. Cap injected ports and inject through adjacent ports until crack is filled.

G. After epoxy adhesive has set, remove injection ports and grind surfaces smooth.

3.8 FIELD QUALITY CONTROL

A. Testing Agency: Owner may engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:
   1. Packaged, Cementitious Patching-Mortar Application: Randomly selected sets of samples for each type of mortar required, tested in accordance with ASTM C928/C928M.
   2. Epoxy Crack-Injection Materials: Core-drilled samples to verify proper installation.
      a. Where samples are taken, refill holes with epoxy mortar.
   3. Product will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

BIDDERS AND CONTRACTORS CHECKLIST

Items Required at Bid Opening: **2:00 PM, Thursday, June 11, 2026,** at City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704

Envelope A

- ☐ Bid Form (Document 00 4113)
- ☐ Bond Accompanying Bid (Document 00 4313)
- ☐ Bidder Registration and Experiencing Form (Document 00 4314)
- ☐ Subcontractor List (Document 00 4330)
- ☐ Non-Collusion Affidavit (Document 00 4519)
- ☐ Bidder Certification (Document 00 4546)
- ☐ Envelope B
- ☐ Statement of Qualifications for Construction Work (Document 00 4513)

Items Required after Notice of Intent to Award for Construction (Document 00 5100):

- ☐ Agreement (Document 00 5200)
- ☐ Construction Performance Bond (Document 00 6113.13)
- ☐ Construction Labor and Material Payment Bond (Document 00 6113.16)
- ☐ OPTIONAL - Escrow Agreement for Security Deposit in Lieu of Retention (Document 00 6290)
- ☐ Insurance Certificates with Endorsements (Document 00 7316)
- ☐ City of Contracting Policies (Document 00 6580)
  - ☐ Memorandum of Understanding
  - ☐ Workforce Composition Form (to be completed by Contractor and any Subcontractors who will do work valued at $3,000 or more)
  - ☐ Agreement for Change in Subcontractors (List all Subcontractors, Contractor to sign and date)
  - ☐ Nuclear Free Zone Disclosure Statement
  - ☐ Oppressive States Compliance Statement
  - ☐ Hardwood Disclosure Form
  - ☐ First Source Construction Agreement (for projects between $100,000 and $500,000)
  - ☐ Community Workforce Agreement, Agreement to be Bound (for projects over $500,000; to be completed by Contractor and any Subcontractors who will do work valued at $3,000 or more)
  - ☐ Certificate of Compliance with Equal Benefits Ordinance
  - ☐ Taxpayer Identification Report
  - ☐ Right to Audit Form
  - ☐ Sanctuary City Compliance Certificate
- ☐ Contractor's License
- ☐ City of Berkeley Business License
- ☐ Vendor Application Form (if not current City vendor)
- ☐ IRS Form I-9 (if not current City vendor)

Items Required During Construction:

- ☐ Progress Schedules and Submittals (Document 01 3230)
- ☐ Monthly Progress Payment Applications (Document 01 2000)
  - ☐ Weekly Certified Payroll Statements for period of Progress Payment Application
  - ☐ First Source Agreement OR Community Workforce Agreement Monthly Reports

Items Required Upon Completion of Project for Final Payment:

- ☐ Agreement and Release of Any and All Claims (Document 00 6530)
- ☐ Guaranty (Document 00 6536)
- ☐ Warranties (Document 01 7700)
- ☐ Closeout Submittals (Document 01 7800)

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Asbestos and Lead Survey Report

Public Works Building
1947 Center Street
Berkeley, CA

April 2025

Acumen Project No. COB 2446

Prepared for:

City of Berkeley
Parks, Recreation & Waterfront Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

Prepared by:

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1947 Center Street
Berkeley, CA

April 2025

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1.0 Introduction

The purpose of this report is to present and discuss the findings of an asbestos and lead materials investigation that Acumen Industrial Hygiene, Inc. (Acumen) conducted for the City of Berkeley, the Client, at the Public Works Building (Site). The Site is a six-story building with the penthouse and the basement located at 1947 Center Street in Berkeley, California. Acumen's representative, Mr. Tam Pham, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on February 27, 2025.

We understand the purpose of this survey is to support the ongoing operations and maintenance (O&M) of asbestos-containing building materials (ACBM) and lead-containing paints (LCP) and wall repair in the safe room on the first floor. At the time of the survey, the building was occupied. Our inspection was limited to accessible areas of the building, and we did not include wall cavities. Our sampling primarily targeted suspected damaged friable asbestos materials, while we also observed non-friable materials presumed to contain asbestos (not sampled). Destructive sampling of the building's roof was not conducted during this investigation.

The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air District (BAAD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify asbestos containing construction materials (ACCM) that would require compliance with Cal/OSHA asbestos regulations. ACCM is a manufactured construction material with asbestos content that is greater than 0.1% by weight.
- To identify primarily deteriorated lead-based paints (LBPs) that would need stabilization/removal before building demolition or renovation to comply with California Environmental Protection Agency (EPA) hazardous waste disposal regulations regulated by the California Department of Toxic Substances Control (DTSC). The handling of LBPs would also require compliance with Cal/OSHA lead regulations (8CCR1532.1). The evaluation of paints was not intended to be either a lead inspection or a lead hazard evaluation as defined by Title 17 CCR 35001 *et seq*. Lead-based paint inspections in public or residential buildings are subject to California Department of Public Health (CDPH) regulations.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition or renovation for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).

2.0 Summary of Investigation

2.1 Review of previous reports

Prior to this survey Acumen reviewed the previous sampling reports.

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- *Survey for Asbestos Containing Materials at 1947 Center Street, Berkeley, California* (Galson Project S7-824), May 7, 1987, by Galson Technical Services, Inc.
- *Completion of Asbestos Related Work at 1947 Center Street, Berkeley, California* (Galson Project S7-365), March 28, 1988, by Galson Technical Services, Inc.
- *Asbestos Abatement Project Report Conducted at 1947 Center Street, Berkeley, California,* March 2005, by Protech Consulting and Engineering.
- *Limited Asbestos Survey for Facility Repairs: 1947 Center Street, Berkeley, CA* (Acumen Project No. COB 1503), July 2015 by Acumen Industrial Hygiene, Inc.
- *Limited Lead-Based Paint Testing For Construction*, By Acumen Industrial Hygiene, Inc. February 9, 2016
- *Limited Asbestos Containing Materials Testing for Building Repairs, 4th Floor Window, Corner Conference Room / Plaster Repairs* (Acumen Project No.: COB 1505A), February 18, 2016
- *Asbestos Containing Materials Inspection for Carpet Replacement Project, 1947 Center Street, 6th Floor, Berkeley, CA 94704,* (Acumen Project No. COB 2231), August 1, 2022, by Acumen Industrial Hygiene, Inc.
- *Asbestos Containing Materials Inspection for Window Replacement Project, 1947 Center Street, 6th Floor, Berkeley, CA 94704,* (Acumen Project No. COB 2231), August 14, 2024, by Acumen Industrial Hygiene, Inc.

A previous asbestos report from Galson Technical Services (Galson, 1987) indicated steam heating and domestic hot water thermal system insulation (TSI) contained asbestos. Plaster ceilings and vinyl floor tile were also reported to be ACM. Galson also discovered asbestos in roofing materials, but there was no mention in these reports regarding testing of exteriors. Materials that tested negative at that time included plaster walls, sheetrock, (drywall/taping mud), linoleum (vinyl sheet flooring) and ceiling tiles (splined and lay-in types).

Based on subsequent Galson letter reports (1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings on the 3rd and 4th floors, vinyl floor tiles (throughout) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however an asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

Acumen Industrial Hygiene, Inc. (Acumen) performed a survey in 2015 and discovered ACM is present in exterior paint and texture on concrete, in exterior window putty and in skylight putty. We also confirmed the presence of asbestos as 9x9" vinyl floor tiles and mastics under carpets and in mechanical closets of 1st, 2nd, 3rd and 4th floors. Asbestos was not detected in pipe chase debris, drywall/taping mud, plaster walls or exterior duct tape (2nd floor roof).

In 2022, samples collected on the 6th floor confirmed the presence of asbestos in 9x9-inch vinyl floor tiles and 12x12-inch orange vinyl floor tiles on the sixth floor.

2.2 Asbestos Survey Methods

The asbestos inspection consisted of a walkthrough of the Site to identify and sample suspect ACM. Acumen noted significant factors of the suspect ACM, including the friability of suspect materials. Friability describes the ability of a material to be crushed or crumbled, when dry, into a powder using hand pressure.

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Where suspect ACMs were noted, bulk samples were collected and submitted with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA). The asbestos laboratory results are shown in Appendix A.

Acumen collected eight (8) asbestos samples at the Site on February 27, 2025. The suspect asbestos samples collected were analyzed by polarized light microscopy (PLM). The asbestos laboratory reports are shown in Appendix A. This method identifies the type(s) of asbestos present in the sample and its corresponding percent concentration(s). The reliable limit of quantification of this method is 1% asbestos.

2.3 Lead-Containing Materials and Paint Survey Methods

The lead inspection consisted of a walkthrough of the Site to identify deteriorated surface coatings and suspect LCMs. Paints that were in deteriorated condition (peeling, chipping, powdering, etc.) were sampled, noting the location, color, substrate, and extent of deterioration. Intact paints were also sampled, for Cal/OSHA compliance purposes. Ceramic tiles were not sampled.

We collected three (3) discrete paint samples for lead analysis. The discrete paint samples were analyzed by flame atomic absorption (FLAA) spectrometry using Method 7420. The limit of quantification depends on the mass of the sample. Lead bulk materials (ceramic tiles) were not sampled during this investigation.

Lead paint samples were submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit. The lead laboratory results are also shown in Appendix A.

3.0 Narrative Summary of Findings

The objective of our services is to determine the presence of asbestos containing material (ACM) in areas planned for facility upgrades and renovations. We understand the building was constructed in the mid-20th Century (1947) but extensively remodeled in 1987 and 2003. The 4th floor was brought back to shell in 2016.

The six-story building was built slab-on grade with concrete perimeter wall (Photo 1). The interior finishes of the building consist of painted drywall and plaster wall. We tested drywall in the safe room on the first floor and found no asbestos or lead (below detection limit) in the samples. This result is limited to this safe room only. Drywall in other areas of the building should be tested to confirm that they do not contain asbestos if they are to be disturbed. Plaster wall did not get tested so we assume that it may contain asbestos. The flooring throughout the building consists of vinyl floor tiles, vinyl sheet flooring, carpet and ceramic tile, which we did not sample. The 9-inch brown vinyl floor tile, known to contain asbestos, is present throughout the building and may be beneath carpet and other flooring materials. Thermal system insulation (TSI) may be present on pipes within wall cavities and between concrete floors. In the basement, we observed deteriorated (loose and flaking) paints on the concrete perimeter wall and in the gas shut off closet. These paints were found to contain up to 3,600 parts per million (ppm) lead.

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4.0 Detailed Findings and Discussion

4.1 Previous Findings and Discussion

Materials sampled and confirmed ACM on June 23, 2015:

- Exterior textured light orange paint on concrete
- Window putty: less than 1% to 2% chrysotile asbestos
- Skylight caulking: 5% to 6% chrysotile asbestos
- 9x9-inch vinyl floor tile and mastic: 3% to 15% chrysotile asbestos

Materials previously reported to contain asbestos (Galson, 1987):

- Pipe insulation (located in non-accessible locations such as pipe chases, risers and soffits
- Plaster ceilings (potentially above drop ceilings, basement, 3rd floor and 4th floor)
- Roofing materials.

4.2 Asbestos Findings and Discussion

The assumed (not sampled) asbestos containing materials are summarized in Table 1. Table 2 shows the sample results for those materials that did not contain detectable amounts of asbestos. The laboratory analytical results are included in Appendix A. Asbestos sample locations are illustrated on the Sample Location Maps provided in Appendix B. The diagrams indicate where the samples were taken, but locations of these materials are not limited to the areas sampled. Representative photographs of materials that have been identified are provided in Appendix C. Previous reports can be found in Appendix D

4.2.1 Friable Asbestos Containing Materials

During our investigation, we did not find friable asbestos containing material based on bulk samples collected at the building.

4.2.2 Non-Friable Asbestos Containing Materials

During our investigation, we did not find non-friable asbestos containing material based on bulk sample collected at the building.

4.2.3 Assumed Asbestos Material (Not Sample)

During our investigation, we identified and assumed friable and non-friable asbestos containing materials at the Site in areas where bulk samples were not collected. Assumed asbestos containing materials should be sampled prior to any disturbance to confirm the absence of asbestos. The material quantity is yet to be determined.

- Suspect roofing materials. These materials are considered Category I non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Drywall and taping mud. Taping mud is considered friable RACM and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos
- Throughout: Metal fire door core (Photo 2). This material is considered friable RACM and requires Cal/OSHA Class I abatement procedure if it was found to contain asbestos.
- Wall Cavities and between floors (throughout): Thermal system insulation. These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.

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- Throughout: Various ceiling tiles (Photo 3). These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.
- Throughout: Various vinyl sheet floorings (Photo 4). These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.
- Throughout: Various baseboard mastic. These materials are considered Category I non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Various under sink coatings (Photo 5). These materials are considered Category II non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Yellow carpet adhesive (Photo 6). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Various ceramic tiles mortar and grout (Photo 7). These materials are considered Category II non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Light green paint on concrete ceiling (Photo 8). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Terrazzo flooring (Photo 9). This material is considered Category II non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Various vinyl floor tiles (Photo 10). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos
- Throughout: Black mastic under carpet (Photo 11). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Basement boiler room: Silver paint on boiler's support frame (Photo 12). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Basement boiler room: Pipe gasket (Photo 13). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos

4.2.4 Regulated Asbestos Containing Materials

BAAD regulates air emissions from building demolition and renovation projects. This agency requires that materials with an asbestos content greater than 1% be removed before building demolition or renovation if they are either friable or the work will damage or otherwise render them friable.

If RACMs were to be disturbed, their removal would require 10-day advance notification to BAAD if more than 100 square feet or 100 linear feet are being removed. Even if less than 100 square feet or linear feet are removed, the BAAD has rules regarding the methods of removal.

Other materials such as flooring and mastics may also be considered RACM if the contractor uses mechanical methods to remove them. The roofing is not considered RACM and considered non-friable because these materials will remain intact during removal. The removal of these materials will need to be consistent with Cal/OSHA requirements for worker protection and the wastes will need to be segregated as Category I non-friable asbestos wastes.

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4.2.5 Non-Asbestos Containing Materials

Refer to Table 2 for materials sampled that do not contain asbestos for the Site.

4.3 Detailed Lead Findings and Discussion

The result of this investigation determined that lead-containing paint is present at the Site. Intact lead paints do not require paint-stabilization. However, deteriorated (loose and flaking) lead paints must be stabilized prior to demolition or renovation. Where inspected, we observe flaking (deteriorated) paints at the Site. As shown on Table 3, we representatively sampled paints to comply with Cal/OSHA and DTSC waste disposal regulations during construction.

Paints that contain more than 5,000 ppm lead are considered "lead-based paint" and if deteriorated are considered a "lead-hazard" by the CDPH. In California, paint chip wastes or materials with lead concentrations exceeding 1,000 ppm are classified as hazardous wastes. Deteriorated paint wastes or materials that contain more than 50 ppm lead, but less than 1,000 ppm lead would need to be re-analyzed by the Soluble Threshold Limit Concentration (STLC) to determine soluble lead content and by the US EPA Total Concentration for Leachable Pollutants (TCLP) test to determine whether the paint or material is either a California or a Federal hazardous waste. If the soluble test(s) exceed 5.0 mg/L, then the waste would be characterized as "hazardous waste" (either California, federal or both). Ceramic tiles with lead content exceeding 50 ppm should be removed and tested for leachable lead using the STLC/TCLP methods before any demolition or renovation activities.

Construction work that disturbs lead-based or lead-containing materials (including demolition) will need to be conducted in accordance with Cal/OSHA's lead in construction regulations (8CCR1532.l). These regulations apply paints and materials that contain any detectable amounts of lead. In theory, this should not pose a significant problem as this regulation has been in effect since 1992. Lead containing materials may require separate disposal if they contain more than 50 ppm lead. This rule does not apply for intact paint.

Cal/OSHA's lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing leaded materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, if the paint is disturbed (e.g., sanding or chipping), contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work. Note that lead related work in public buildings that exceeds Cal/OSHA's permissible exposure limit requires that the training be accredited lead worker training under the California Department of Public Health (CDPH).

4.3.1 Lead-Based Paint

During our investigation, we did not find lead-based paints (greater than 5,000 ppm) based on bulk samples collected at the building.

4.3.2 Lead-Containing Paint

During our investigation, we found lead-containing paint (less than 5,000 ppm) based on bulk samples collected at the building.

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- White paint on concrete wall contains 3,600 ppm lead (sample COB2446-1947-PB01, Photo 14). There are approximately 75 square feet of this deteriorated (loose and flaking) paint present throughout the building, which will require paint stabilization and disposal as a hazardous waste.
- Green paint on drywall contains 2,700 ppm lead (sample COB2446-1947-PB02, Photo 15). There are approximately 50 square feet of this deteriorated (loose and flaking) paint present throughout the building, which will require paint stabilization and disposal as a hazardous waste

4.3.3 Non-Lead-Containing Paints

During our investigation, we found non-lead-containing paint (below detection limit) based on bulk samples collected at the building.

- White paint on drywall contains lead concentrations less than the detection limit (less than 50 pm). The paint is deteriorated but does not need stabilization.

5.0 Recommendations

5.1 ACMs/LCMs During Building Demolition or Renovations

1. Notify potential demolition or renovation contractors of the presence of deteriorated lead-containing paints. Disturbance of the lead paints requires compliance with Cal/OSHA's lead in construction regulation.
2. Conduct sampling of all assumed materials identified in this report for asbestos and/or lead to determine if removal is necessary before any disturbance.

6.0 Managing ACM/LBP in Place (For Portions to Remain)

1. If the building (of portions there-of) is not abated, the owner will need to notify building occupants and employees of the presence of asbestos, as required under California Health and Safety Code 25915.7-25919.7 (Connelly Bill) and by Cal/OSHA regulations. The materials have a low fiber release potential if they remain undisturbed. Notify contractor and maintenance employees of this report.
2. Prepare and implement an asbestos O&M program to manage ACMs that will remain in place. This asbestos O&M program should detail roles and responsibilities for managing ACM at the complex. The O&M program should establish written policies and procedures for asbestos safe work practices to minimize the potential for unauthorized disturbance of ACM, monitor the condition of ACM and respond to damage or deterioration of ACM, with the goal of preventing the release of airborne asbestos fibers. Implementation of the O&M program will require that facility employees receive annual asbestos training. The O&M program should remain in place as long as ACM remains in the buildings.
3. The California - Proposition 65 rules require posting a sign warming of potential hazards because of the presence of asbestos and lead.

7.0 Conclusions

Our investigation did not discover asbestos containing material based on bulk samples tested. Deteriorated lead-containing paints are present and would require paint stabilization. Work that disturbs asbestos and lead is regulated by Cal/OSHA and requires licensed contractors that specialize in abatement. We recommend a clearance inspection by an accredited CDPH inspector assessor or project monitor once the paints have been stabilized.

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8.0 Limitations

Reasonable effort was made by Acumen personnel to locate, and sample suspect hazardous building materials. However, for any facility or building, the existence of unique or concealed ACM or lead-containing materials, other hazardous building materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning, for demolition or renovation purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

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Table 1

Asbestos Containing Material
1947 Center Street
Berkeley, CA

February 28, 2025

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
Throughout	Drywall and Taping Mud	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Metal Fire Door	Assumed (Not Sample)	RACM	TBD	N/A
Throughout – Wall Cavities and Between Floors	TSI	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Ceiling Tiles	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Vinyl Sheet Floorings	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Baseboard Mastics	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Various Under Sink Coatings	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Yellow Carpet Adhesive	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Various Ceramic Tiles Mortar and Tiles	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Light Green Paint on Concrete Ceiling	Assumed (Not Sample)	Cat I NF	TBD	N/A
Basement – Boiler Room	Silver Paint on Boiler's Support Frame	Assumed (Not Sample)	Cat I NF	TBD	N/A
Basement – Main Electrical	Pipe Gasket	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Terrazzo Flooring	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Various Vinyl Floor Tiles	Assumed (Not Sample)	Cat I NF	TBD	N/A

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Table 1 (continued)

Asbestos Containing Material
1947 Center Street
Berkeley, CA

February 28, 2025

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
Second Floor – Conference Room 251 and Throughout	Black Mastic under Carpet	Assumed (Not Sample)	Cat I NF	TBD	N/A
Roof	Roofing Materials	Assumed (Not Sample)	Cat I NF	TBD	N/A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). Samples that are marked Point Count were analyzed by EPA-600/R93-116 (1993) method as determined by PLM 400 Point Count method and are reported as percentage (%) asbestos. CH = Chrysotile asbestos; AC = Actinolite asbestos; TR = Tremolite asbestos; AM = Amosite asbestos; CR = Crocidolite; Trace = levels of asbestos is less than 1%; ND = no asbestos detected; and Assumed = material to contain asbestos unless proven otherwise.
2. BAAQMD indicates classification into friable as Regulated Asbestos Containing Material (RACM) or Category I (Cat I) or Category II (Cat II) Non-Friable. Depending on methods of removal Category I or II non-friable ACMs could become rendered into friable/RACM. BAAQMD classifications are non-applicable (N/A) for materials with results that are ND for asbestos.
3. EQ means estimated quantity either in square feet (SF), linear feet (LF), or each unit (EA). Estimated quantities are non-applicable (N/A) for materials with results that are ND for asbestos. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. TBD = To Be Determined. NQ = Not Quantified. Assumed asbestos materials should be tested to prove otherwise.

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Table 2

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

February 27, 2025

Location	Material	Results[1]	Sample No.
Basement - West Exit Corridor	White Paint on Concrete Wall	Paint: ND Compound: ND	COB2446-1947-01A
Basement - West Exit Corridor	White Paint on Concrete Wall	ND	COB2446-1947-01B
First Floor - Safe Room	Drywall with Taping Mud	Drywall: ND Taping Mud: ND Tape/Paint: ND	COB2446-1947-02A
First Floor - Safe Room	Drywall with Taping Mud	Drywall: ND Taping Mud: ND Paint: ND	COB2446-1947-02B
Basement - Gas Shut Off Closet	Green Paint on Drywall	Paint: ND Compound: ND	COB2446-1947-03A
Basement - Gas Shut Off Closet	Green Paint on Drywall	Paint: ND Compound: ND	COB2446-1947-03B
Penthouse - Electrical Room	Beige with Red Splotches	Flooring: ND Backing: ND Mastic: ND	COB2446-1947-04A
Penthouse - Electrical Room	Beige with Red Splotches	Flooring: ND Backing: ND Mastic: ND	COB2446-1947-04B

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

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Table 2

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

February 27, 2025

Location	Material	Result[1]	Condition[2]	EQ[3]	Sample No.
Basement - West Exit Corridor	White Paint on Concrete Wall	3,600	Deteriorated	75 SF	COB2446-1947-PB01
Basement - Gas Shut Off Closet	Green Paint on Drywall	2,700	Deteriorated	50 SF	COB2446-1947-PB02
Basement - Safe Room	White Paint on Drywall	< 50	Deteriorated	N/A	COB2446-1947-PB03

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7420 is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on U.S. EPA SW-846, 3rd edition. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. Intact paint requires no lead-stabilization; deteriorated paint with greater than 50 ppm lead must be stabilized prior to demolition or renovation.
3. EQ means estimated quantity in square feet (SF). Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Lead-stabilization is not required.

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Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

April 2025

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**326668**
Total Samples	8
Date Sampled	02/27/2025
Date Received	02/28/2025
Date Analyzed	03/03/2025

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: **COB2446-1947-01A** Micro #: 326668-01 Analyst: KG **BASEMENT - WEST EXIST CORRIDOR** **WHITE PAINT ON CONCRETE WAY**	**PAINT: ND** **COMPOUND: ND**	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: **COB2446-1947-01B** Micro #: 326668-02 Analyst: KG **BASEMENT - WEST EXIST CORRIDOR** **WHITE PAINT ON CONCRETE WAY**	**ND**	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: **COB2446-1947-02A** Micro #: 326668-03 Analyst: KG **1 - SAFE ROOM** **DRYWALL W/ TAPING MUD**	**DRYWALL: ND** **TAPING MUD: ND** **TAPE / PAINT: ND**	15 % CELLULOSE NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB2446-1947-02B** Micro #: 326668-04 Analyst: KG **1 - SAFE ROOM** **DRYWALL W/ TAPING MUD**	**DRYWALL: ND** **TAPING MUD: ND** **PAINT: ND**	10 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB2446-1947-03A** Micro #: 326668-05 Analyst: KG BK **BASEMENT - GAS SHUT OFF CLOSET** **GREEN PAINT ON DRYWALL**	**PAINT: ND** **COMPOUND: ND**	NFM: OPAQUES MISCELLANEOUS PARTICLES

Technical Supervisor: _____ 3/3/2025
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**326668**
Total Samples	8
Date Sampled	02/27/2025
Date Received	02/28/2025
Date Analyzed	03/03/2025

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2446-1947-03B Micro #: 326668-06 Analyst: KG **BASEMENT - GAS SHUT OFF CLOSET** **GREEN PAINT ON DRYWALL**	**PAINT: ND** **COMPOUND: ND**	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: COB2446-1947-04A Micro #: 326668-07 Analyst: KG **PENTHOUSE - ELECTRICAL ROOM** **BEIGE W/ RED SPLOTCHES**	**FLOORING: ND** **BACKING: ND** **MASTIC: ND**	60 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2446-1947-04B Micro #: 326668-08 Analyst: KG **PENTHOUSE - ELECTRICAL ROOM** **BEIGE W/ RED SPLOTCHES**	**FLOORING: ND** **BACKING: ND** **MASTIC: ND**	60 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: Baojia Ke, Ph.D. 3/3/2025 Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, *non regulated amphiboles* (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

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326668
(plm)

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INDUSTRIAL HYGIENE INC
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TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2446

Location: 1947 Center Street
Address: Berkeley, CA
Sampling Date: 2/27/2025

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB2446-1947 -01A	Base-ment	West Exist corridor	white paint on concrete wall	PLM Asbestos
2	-01B				
3	-02A	1	Safe Room	Drywall w/ taping Mud	
4	-02B	1			
5	-03A	Base-ment	gas shut off closet	green paint on drywall	
6	-03B				
7	-04A	Penthouse	Electrical Room	Beige w/ Red splotches	
8	-04B	Pent-house			
	-Pb01	Base-ment	West exist corridor	white paint on concrete wall	PLM4 LEAD
	-Pb02		gas shut off closet	green paint on drywall	
	-Pb03	1	Safe Room	white paint on drywall	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 2/28/2025	Date Received: 2/28/25 15:28

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

☐ NT ☐ WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

LEAD IN PAINT - FLAME AAS (SW846)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In 326669
Total Samples 3
Date Sampled 02/27/2025
Date Received 02/28/2025
Date Analyzed 03/01/2025

Sample ID	Lead Concentration Weight Percent	mg/kg (ppm)	RDL
Client: COB2446-1947-PB01 Lab: 326669-01 BASEMENT - WEST EXIST CORRIDOR WHITE PAINT ON CONCRETE WALL	0.36 %	3600	0.0280 % 280 mg/kg
Client: COB2446-1947-PB02 Lab: 326669-02 BASEMENT - GAS SHUT OFF CLOSET GREEN PAINT ON DRYWALL	0.27 %	2700	0.0270 % 270 mg/kg
Client: COB2446-1947-PB03 Lab: 326669-03 BASEMENT - SAFE ROOM WHITE PAINT ON DRYWALL	< 0.0050 %	< 50	0.0050 % 50 mg/kg

Technical Supervisor: _____ 3/1/2025 Analyst: TLN
Long T. Nguyen, Chemistry Supervisor Date Reported

AIHA-LAP, LLC Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Paint. This SOP is based on U.S. EPA SW-846 Method 7420 for instrumental analysis, and on ASTM E-1645-21 for nitric acid and hydrogen peroxide digestion. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. If the amount of sample available for analysis is lower than advisable for this method, detection limits and uncertainty will be higher. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. N/A = Not Applicable. RDL = Report Detection Limit.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

326669
(paint)

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BULK CHAIN OF CUSTODY FORM

Project No. COB 2446

Location: 1947 Center Street
Address: Berkeley, CA
Sampling Date: 2/27/2025

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
	COB2446-1947-01A	Basement	West Exist Corridor	white paint on concrete wall	PCM ~~Asbestos~~
	-01B				
	-02A	1	Safe Room	Drywall w/ taping Mud	
	-02B	1			
	-03A	Basement	gas shut off closet	green paint on drywall	
	-03B				
	-04A	Penthouse	Electrical Room	Beige w/ Red splotches	
	-04B	Penthouse			
1	-P501	Basement	West Exist Corridor	white paint on concrete wall	PLM ~~LEAD~~
2	-P502		gas shut off closet	green paint on drywall	
3	-P503	1	Safe Room	white paint on drywall	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 2/28/2025	Date Received: 2/28/25 15:28

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

☐ NT ☐ WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Appendix B

Sample Location Floor Plans

1947 Center Street
Berkeley, CA

April 2025

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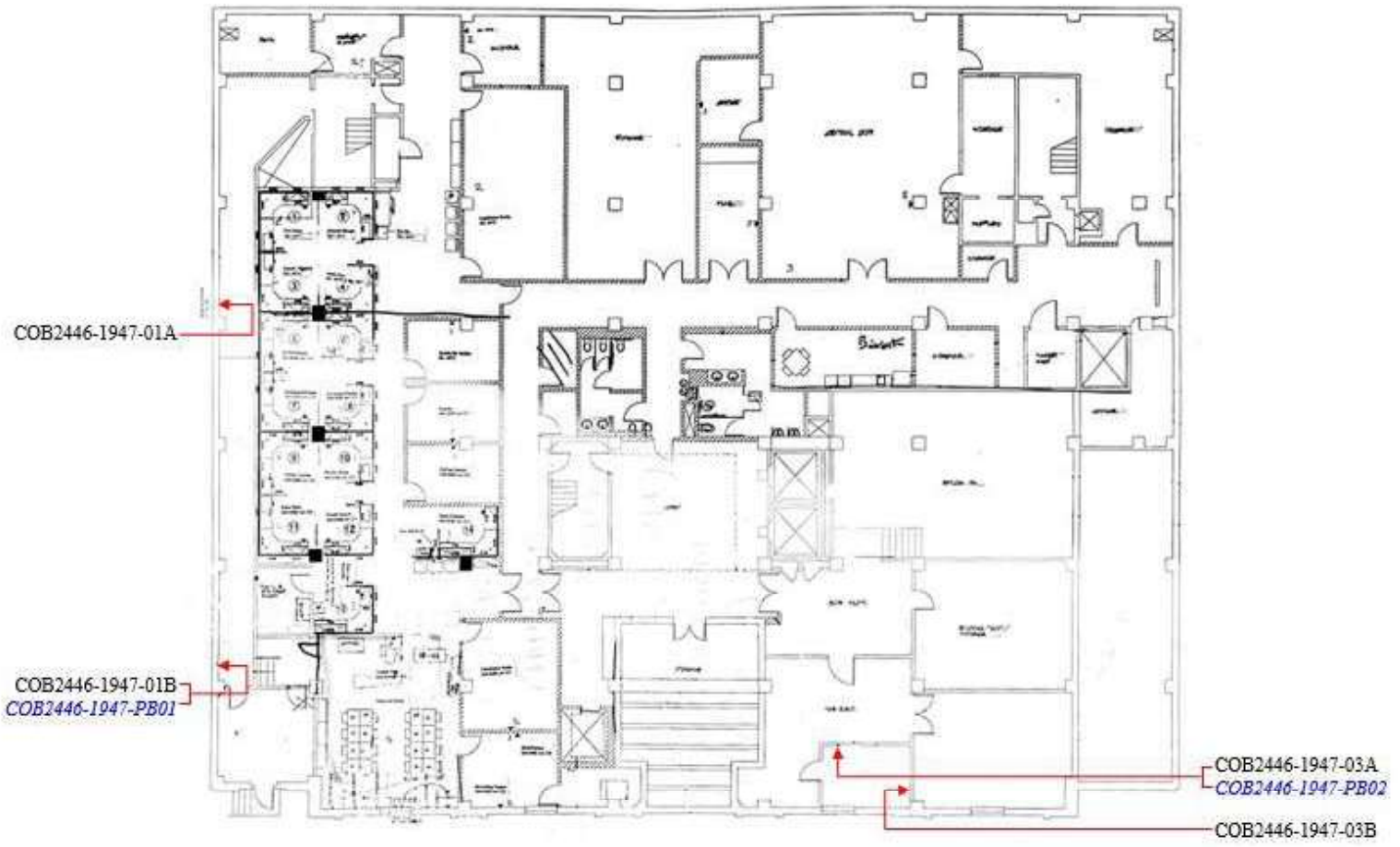

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SAN FRANCISCO CA 94122
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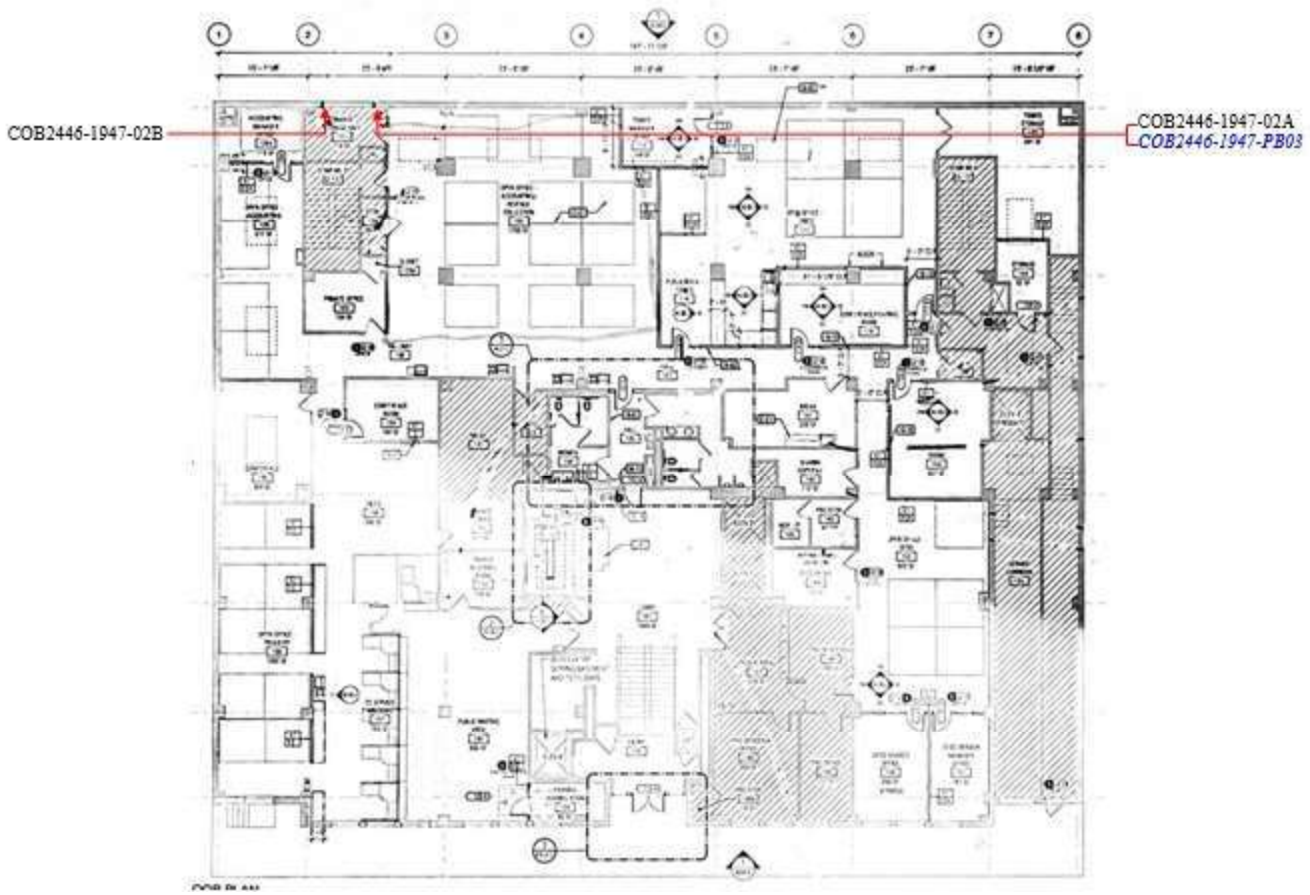
Project
Public Works Building
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2446	02/28/25

Location
-

Level
Basement

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
* Floor plan is not to scale.

N

A

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1032 IRVING STREET #922

SAN FRANCISCO CA 94122

415 242 6060

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Project

Public Works Building
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2446	02/28/25

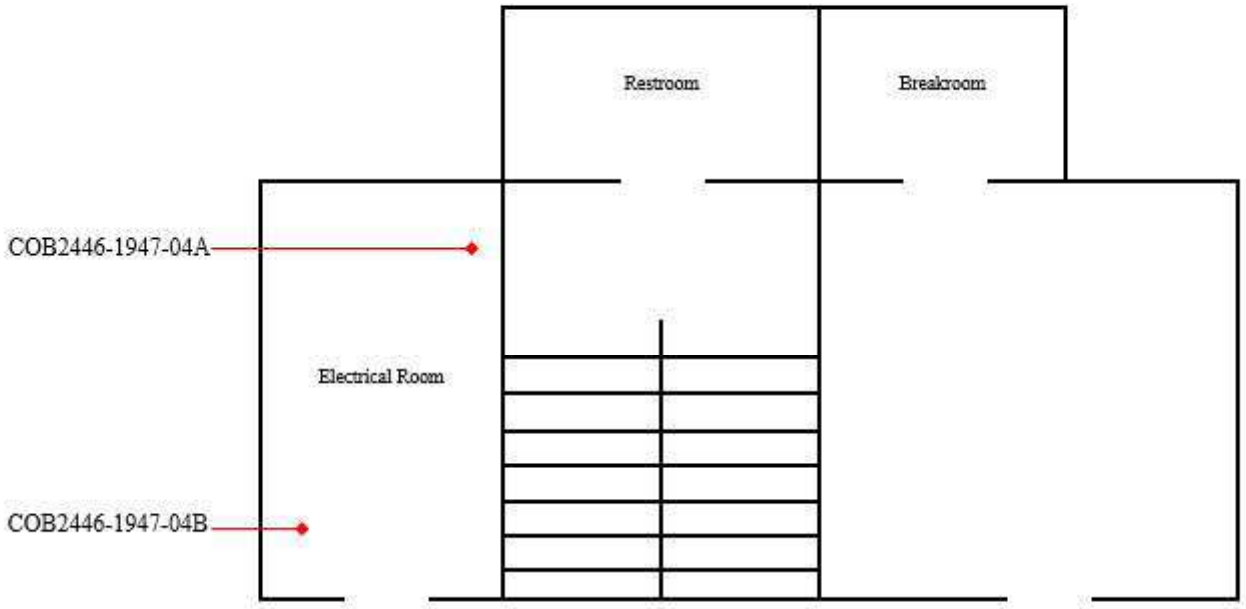
Location

-

Level

First Floor

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
* Floor plan is not to scale.

N

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SAN FRANCISCO CA 94122
415 242 6060
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Project
Public Works Building
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2446	02/28/25

Location
-

Level
Penthouse

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Appendix C

Photographs

1947 Center Street
Berkeley, CA

April 2025

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 1
Public Works building located at 1947 Center Street, Berkeley, CA.

Photo 2
Basement stair 3: Metal fire door core.

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Photo 3
Second floor hallway: Ceiling tile.

Photo 4
Basement hallway: Vinyl sheet flooring and baseboard mastic.

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Photo 5
Basement multipurpose room: Under sink coating.

Photo 6
Basement lounge: Yellow carpet adhesive.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 7
Basement restroom: Ceramic tiles mortar and grout.

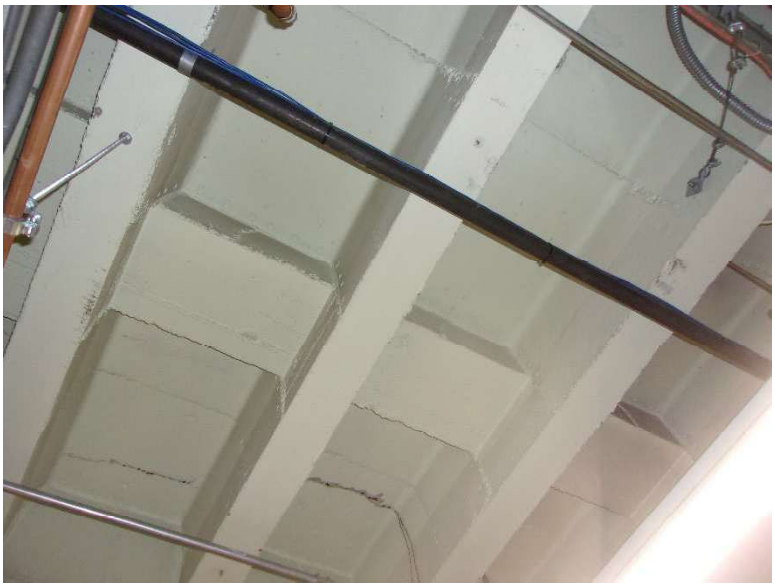

Photo 8
Basement storage: Light green paint on concrete ceiling.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 9
Second floor elevator lobby: Terrazzo flooring.

Photo 10
Second floor breakroom: Vinyl floor tile.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 11
Second floor Balsam conference room: Black mastic under carpet.

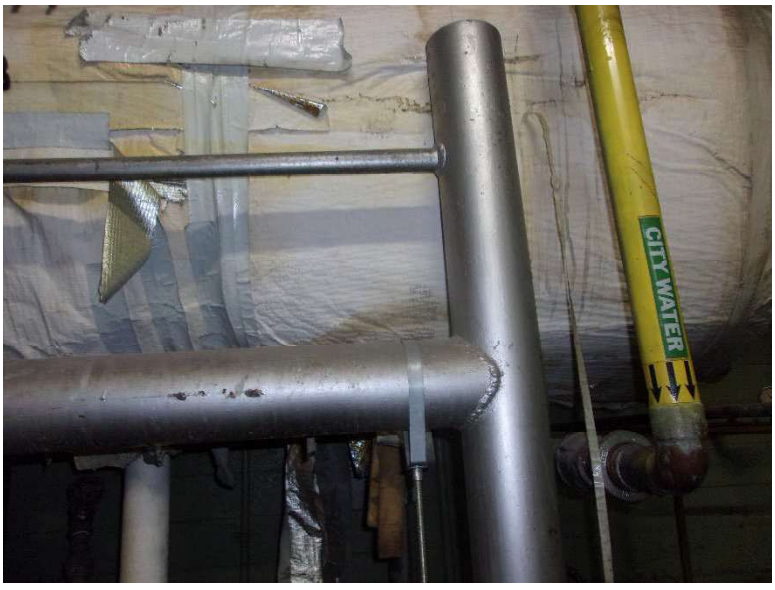

Photo 12
Basement boiler room: Silver paint on boiler's support frame.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

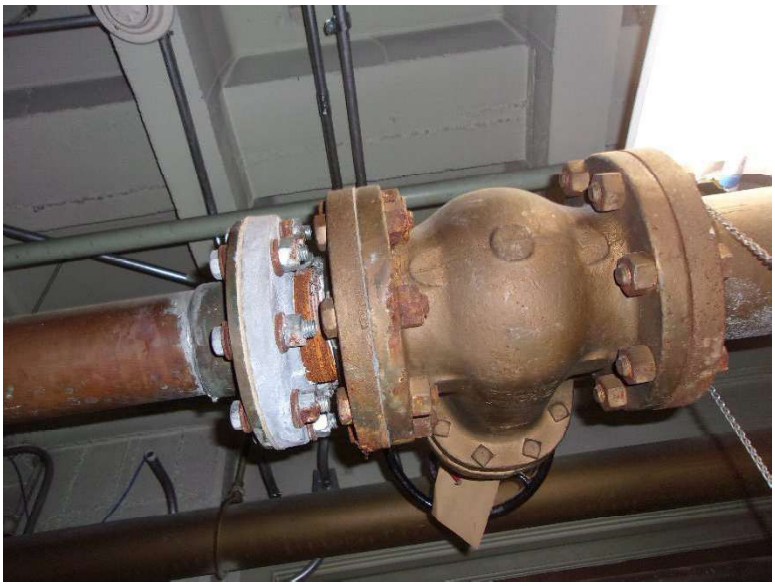

Photo 13
Basement main electrical room: Pipe gasket.

Photo 14
Basement west exit corridor: White paint on concrete wall contains 3,600 ppm lead. It does not contain asbestos.

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Photo 15

Basement gas shut off closet: Green paint on concrete wall contains 2,700 ppm lead. It does not contain asbestos.

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INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

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Appendix D

Previous Reports

1947 Center Street
Berkeley, CA

April 2025

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

SURVEY FOR ASBESTOS CONTAINING MATERIALS AT 1947 CENTER STREET BERKELEY, CALIFORNIA

GALSON PROJECT NO. S7-365

MAY 7, 1987

PREPARED BY:

GERALD J. BARTKUS, PE
PROJECT CONSULTANT

APPROVED BY:

Philip J. Nute FOR CHUCK SIU

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
77 8 ST., SUITE 205
OAKLAND, CA 94607

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ABSTRACT

This report summarizes the results and observations of a survey for asbestos containing materials in the building at 1947 Center Street, Berkeley, California. The purpose of the survey is to identify asbestos containing materials in the building and roof, so that proper provisions may be made to handle them during any future renovations.

Many systems examined did contain asbestos containing materials(ACM). Insulation on the steam heating and domestic hot water systems contains the largest percentage of asbestos found. The plaster ceiling and vinyl floor tile in the basement, 1st, 2nd, 3rd, 4th, 5th and 6th floors contained asbestos containing materials(ACM). Four of the twelve roofing layers tested positive for ACM. Asbestos was not detected in the plaster and sheetrock walls, the splined and laid-in ceiling tiles, or the linoleum.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

FINAL REPORT:
1947 CENTER STREET BUILDING
ASBESTOS REMOVAL PROJECT
1947 CENTER STREET
BERKELEY, CALIFORNIA

GALSON JOB NO. S7-824

PROJECT DURATION
AUGUST 25, 1987 TO DECEMBER 11, 1987

REPORT PREPARED:
FEBRUARY 8, 1988

REPORT PREPARED FOR:
1947 CENTER STREET ASSOCIATES

PREPARED BY:

COLIN S. BROWNLOW
SENIOR INDUSTRIAL HYGIENIST

APPROVED BY:

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
2116 BERKELEY WAY
BERKELEY, CA 94704

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

1.0 INTRODUCTION

The 1947 Center Street building is a six story office building located at 1947 Center Street, Berkeley, California. The building was built in 1947, and served as the Berkeley offices of State Farm Insurance Co. In recent years the building served as a multi-tenant office space, with the Educational Testing Service (ETS) as the principal tenant. ETS vacated the building in the fall of 1987. The building owners, 1947 Center Street Associates, took the opportunity of the vacant floors to carry out extensive renovations in the building.

Galson Technical Services, Inc. was originally retained to carry out a survey of the building for the presence of asbestos containing materials. The results of that survey (GTS project # S7-365) were sent to the property managers (Gerson Bakar & Associates) in a report entitled Survey for Asbestos Containing Materials At 1947 Center Street, on May 7, 1987. The report states that the insulation on the steam heating and domestic hot water systems contained asbestos. The plaster ceilings and vinyl floors in the basement, 1st, 2nd, 3rd, 4th, 5th, and 6th floors contained asbestos. Four of the twelve roofing layers tested, contained asbestos. Asbestos was not detected in any other building systems.

Galson was asked to prepare the specifications for removal and disposal of asbestos containing materials in the building (GTS Project S7-647). The specifications and addendum to those specifications are contained in Appendix A of this report. Under the scope of work contained in the project specifications and the addendum, the asbestos abatement contractor was responsible for:

- Removal of insulation from steam heating, heating hot water and domestic hot water pipes in the basement mechanical room.
- Removal of insulation from fittings on steam heating, heating hot water and domestic water lines in the basement mechanical room.

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- Removal of insulation from vessels in the basement mechanical room, including the domestic hot water tank.
- Removal of insulation from the boilers in the basement mechanical room.
- Removal of insulation from the breeching in the basement mechanical room.
- Removal of asbestos containing plaster ceilings from the basement elevator lobby and the 1st, 2nd, 5th and 6th floors.

The scope of work was selected to tie in with the proposed renovation of the building which included reinsulation of the equipment in the basement mechanical room, renovation and installation of new mechanical systems on the 1st, 2nd, 5th and 6th floors. The 3rd and 4th floors were to remain occupied and were not scheduled for renovation. Prior to the start of the project, the decision was made to exclude removal of the plaster ceiling in the basement elevator lobby from the scope of work.

Apersey Construction was selected as the general contractor for the renovation project. As its asbestos abatement subcontractor, Apersey selected Strategic Organizational Systems, International, Inc. (SOS).

Galson was retained to provide environmental quality assurance and quality control services during the project. Galson reported directly to the building owner throughout the project. Galson's scope of work included the following:

- Inspection and approval of work area preparation to ensure that cross contamination of the clean areas did not occur.

- During the abatement project, collection of air samples daily (Monday through Friday) outside the barricaded work area. One set of samples was to be collected daily covering the work period from 7:30 AM to 4:30 PM. There were two purposes for the air samples: first, to monitor and detect cross-contamination and second, to document the quality of air in the clean areas. Sampling locations were to be selected to reflect:

    a. Worst case conditions - immediately outside the isolation barriers.

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Several instances of horseplay were observed during the project. Of particular concern were the workers' activities when bagging out asbestos containing materials. SOS workers were observed racing in the basement hallway with hand carts full of asbestos bags. On occasion this occurred between 3:30 and 5:00 pm when the building tenants' personnel were exiting the building via the basement. Both Galson and Apersey asked SOS to supervise their bag out crews more closely. Invariably the problem would clear up for a few days, and then reappear.

7.0 PROJECT DELAYS

Several delays occurred during the project. These delays fell into two broad categories, delays due to additional scope of work and delays on the part of the contractor.

7.1 DELAYS DUE TO ADDITIONAL SCOPE OF WORK

During the asbestos abatement project several items were added to the contractors scope of work. These included:

- removal of the plaster ceiling in the 1st Floor lobby,
- removal of asbestos containing insulation on steam piping in the basement,
- removal of steam pipe insulation above the plaster ceilings on the 1st, 2nd, 5th and 6th floors,
- removal of steam riser insulation and hot water pipe insulation exposed during demolition of the bathrooms in the core area of each floor, and
- removal and disposal of PCB containing fluorescent lamp ballasts from fluorescent light fixtures on the 1st, 2nd, 5th and 6th floors.

These items significantly added to SOS's scope of work and increased the cost of the asbestos abatement project. Apart from the additional cost and time delay incurred in the removal and disposal of the PCB lamp ballasts, Galson feels that the delays due to additional scope of work arose as a result of a poorly defined scope of work, and lack of coordination between the architect, general contractor, building owner and Galson prior to the start of the project.

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Wilson
Technical Services, Inc.
2116 Berkeley Way
Berkeley, CA 94704
Tel: (415) 848-0389
Fax: (415) 848-0838

Environmental Sciences
Division

March 28, 198

Ms. Judy Greif
Project Manager
Gerson Bakar & Associates
201 Filbert Street
San Francisco, CA 94133-3298

Re: Completion of Asbestos Related Work
1947 Center Street, Berkeley, CA
GTS Project No. S7-824

Dear Ms. Greif:

All asbestos-related work at the 1947 Center Street building, in Berkeley, has now been completed. This work included:

- the removal of the asbestos containing; plaster ceilings on the 1st, 2nd, 5th, and 6th floors;
- the removal of all asbestos containing thermal insulation in the basement mechanical room;
- the removal of all exposed asbestos containing pipe insulation in the basement, in the building's stairwells and on the roof of the 1st floor annex;
- the removal of all asbestos containing pipe insulation exposed by the demolition of the plaster ceilings and by the demolition of the washroom walls, on the 1st, 2nd, 5th and 6th floors;
- the sealing of all identified wall and ceiling penetrations which might still have asbestos containing pipe insulation, with spray-foam.

The first four items were completed by mid-December, 1987. The sealing of the ceiling and wall penetrations was completed in February, 1988.

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Galson Technical Services, Inc. performed the final visual inspections and final clearance air monitoring for the asbestos abatement work in the 1st, 2nd, 5th, and 6th floors, as well as the basement mechanical room. The clearance air samples were collected using aggressive sampling techniques; the clearance samples were analyzed using transmission electron microscopy (Yamate, 1984). All areas were in compliance with the clearance standard contained in the project specification. A summary of the TEM results is given in the attached Table 1.

Galson understands that several questions have been raised regarding the decision to leave the plaster ceilings in place on the 3rd and 4th floors, and to leave the asbestos containing pipe lagging on the steam lines in the perimeter pipe chases. It may be of use therefore in discussing the rationale behind the decision to remove certain materials in the building and to leave others.

Although the plaster ceilings contained 10% chrysotile asbestos, the plaster material itself was non-friable and so would not release asbestos fibers unless the material was mechanically abraded. On most of the floors the plaster ceilings were contained behind suspended ceiling tile (this was the case on both the 3rd and 4th floors). The space between the suspended ceiling tile and the plaster ceilings was not a return air plenum. Galson also carried out air sampling on all floors of the building prior to any demolition, or asbestos related work. Analysis of the air samples showed the asbestos fiber concentrations on all floors to be less than 0.003 fibers/cc (the limit of detection of the analytical method). Based upon the above considerations, Galson felt that so long as the plaster ceilings were not damaged or mechanically abraded, they would not present any threat to the health of the building occupants or the environment.

Since the proposed renovation work on the 1st, 2nd, 5th and 6th floors of the building would involve demolition and removal of substantial amounts of the plaster ceiling on these floors, Galson advised Center Street Associates, that this work would likely result in the release of asbestos fiber, and that such work would have to be done under asbestos containment procedures. The building owners decided therefore to use this opportunity to remove the asbestos containing plaster ceilings on the floors scheduled for renovation.

Since no renovation work was planned for the 3rd and 4th floors, and since these floor were both occupied by long-term tenants the decision was made not to remove the plaster from these floors. If the plaster were to have been removed from these two floors, it would have involved the relocation of the tenants for about a month, with the accompanying inconvenience to the tenants and likely loss of revenue to the building owner. This inconvenience, the costs of relocation and loss of revenue would not have been offset by any improvement in the environmental conditions on either of the floors.

In regards to decision to defer removal of the asbestos containing plaster on the 3rd and 4th floors, it should be noted that it is a common strategy on the part of building owners to defer removal of asbestos containing materials on individual floors within a building until such time as those floors are being renovated. Providing those materials pose no threat to health (as was the case at 1947 Center Street) this is a strategy which Galson would support, and one which is recognized and endorsed by the Environmental Protection Agency.

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The decision to remove the asbestos containing thermal insulation from the basement mechanical room, from exposed piping in the basement and from piping exposed by other demolition was based mainly upon the desire of the building owner to protect the tradesmen carrying out the renovations, and the owners' maintenance personnel from possible exposure to asbestos containing materials during repair work. Although thermal insulation is generally encased in painted canvas, the canvas can be torn. The thermal insulation itself usually has a very high asbestos content and is extremely friable. Since the planned renovations could easily damage any of the exposed thermal insulation the decision was made to have that material removed prior to the renovations.

It should be noted that some asbestos containing thermal insulation within sealed pipe chases remains in the building. Removal of the insulation within the pipe chases would require extensive demolition of walls on all floors of the building (including the occupied 3rd and 4th floors). Since the pipe chases are inaccessible from the occupied areas of the building the decision was made to leave the materials in place. Should extensive wall renovations be planned then the insulation could be removed at that time.

Galson trusts this discussion will help in clarifying the decision to leave some asbestos containing materials in place within the building. If Galson can be of any further assistance, or if you should have any further questions, please do not hesitate to contact Colin Brownlow at this office.

Sincerely;
GALSON TECHNICAL SERVICES, INC.

Colin S. Brownlow
Senior Industrial Hygienist

Rev:

Disk: S7-824, work completion

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ProTech
Consulting & Engineering

1755 E. Bayshore Road, Suite 14B, Redwood City, CA 94063
(650) 569-4020 Fax (650) 569-4023

Date: March 22, 2005
Report #: 214-AG05
Cal/OSHA Certified Asbestos Consultant: Glen Koutz

ASBESTOS ABATEMENT PROJECT REPORT

CONDUCTED AT:

1947 Center Street, 2nd Floor
Berkeley, California

PREPARED FOR:

City of Berkeley
1947 Center Street
City, CA 94704

ASBESTOS ABATEMENT CONTRACTOR:

Asbestos Management Group
3438 Helen Street
Oakland, California

PREPARED BY:
PROTECH CONSULTING AND ENGINEERING
March 2005

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g. Install primary barriers on all walls and floors inside of the abatement work area.
h. Install 3 stage decontamination shower unit.
i. Install magnehelic gage with continuous disc chart recorder

3. Asbestos Abatement Activities

a. Maintain negative pressure inside of the asbestos abatement work areas for eight hours prior to any ACM removal.
b. Wet removal all ACM as specified. Where necessary, remove and dispose of non-ACM building components, finishes, fixtures, etc. that are scheduled for demolition to access all ACM/ACCM.
c. Detail clean all barriers and work area surfaces.
d. Following final inspection of the work area, perform encapsulation of all work areas surfaces.
e. Following visual and final clearance, remove all barriers and check for any residual ACM debris.
f. Demobilize from site.
g. Submit all project close-out submittal documents.

4. Asbestos Abatement Scope of Work

a. The work specified herein includes the removal of various ACM at the subject site.
b. The Contractor shall perform selective wet remove and dispose of asbestos-containing building materials that may potentially be impacted during planned renovation work. The locations and extent of removal shall be limited to specific areas on the second floor as indicated on the attached Second Floor Finish Plan and Second Floor Demolition Plan plans and/or as laid-out in the field.
c. The following asbestos-containing materials are known to exist in areas of the second that will be impacted by planned renovation work:

Suspect Asbestos Material Description	Asbestos Content (%)
Brown 9 x 9" vinyl floor tile and mastic - under carpet throughout the second floor.	10% Chrysotile
Residual pipe insulation and associated debris – at column of room 255	7% Chrysotile 5% Amosite
Black mastic under white with black flecks 12 x 12" vinyl floor tile - phone room 241 over brown 9 x 9" floor tile	5% Chrysotile
Quantity of ACM to be Removed	
All ACM potentially affected (impacted, damaged or disturbed) by planned demolition and/or replacement of new building components (walls) shall be removed. Approximately 170 linear feet of wall removal and/or construction is planned (see attached site plans). The general contractor shall assess the amount of ACM that is required to be removed so that general trades work can be safely conducted and completed without contacting, impacting or otherwise damaging the remaining ACM. At a minimum, ACM removal shall include the dimensional wide of all wall demolition/replacement locations plus a minimum of one whole tile width on each side of sections to be demolished/replaced. No partial, broken or damaged floor tile shall remain. No exposed ACM mastic shall remain.	

d. The above scope-of-work is the result of a limited pre-renovation asbestos inspections performed by ProTech. Due to the limitation of the pre-renovation inspection, it is unlikely that this specification accounts for the

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Prepared For:

1947 Center Street Associates
Ms. Jodi Aurely
201 Filbert Street
San Francisco, California 94133-3298

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Commercial Building
1947 Center Street
Berkeley, California 94704
ATC Project No. 17256.0017

Prepared by:

ATC Associates Inc.
6666 Owens Drive
Pleasanton, California 94588
(925) 460-5300 Fax (925) 463-2559

June 17, 1999

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

the basement and ground levels of the building. According to Ms. Hela, the freight elevator is a hydraulic elevator. The hydraulic oil is housed in an oil reservoir adjacent to the elevator, and also in the pumping unit, jack, and the to and from delivery line. According to Ms. Hela, the hydraulic oil does not contain PCBs.

ATC reviewed a *Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California* dated June 28, 1989, prepared by Clayton Environmental Consultants, Inc. (Clayton). At the time of the Clayton site inspection, the elevators at the Site were serviced by Vertrans. Vertrans stated that the passenger elevators were operated by cables and the freight elevator was operated by non-PCB containing AW32 hydraulic oil. In addition, according to Clayton, the elevators were manufactured by Otis, a major elevator manufacturer that was confirmed to have never used hydraulic oils (Clayton, 1989).

Based on the fact that the hydraulic oil used for the freight elevator does not contain PCBs, the freight elevator is not considered to represent an environmental concern to the Site.

ATC observed one concrete vault electrical transformer number T-6038, which is owned and operated by PG&E. According to Clayton, all of the transformers in the city of Berkeley have been replaced or refilled with a non-PCB containing dielectric fluid (Clayton, 1989). Therefore, the transformer is not considered to represent an environmental concern to the Site.

2.4 ASBESTOS-CONTAINING MATERIALS (ACMs)

ATC visually inspected the facility for the presence of suspect ACMs. ATC reviewed the report entitled *Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California* prepared by Galson Technical Services, Inc. (Galson), dated May 7, 1987. Galson collected bulk asbestos samples from the building and determined that numerous materials throughout the building contained asbestos (Refer to Section 2.7). Subsequent abatement projects in 1987 and 1988 removed a great deal of the asbestos from the building (Refer to Section 2.7). According to Ms. Jodi Aurely of CSA, floors 1, 2, 5, and 6 were renovated in 1988 and 1989; floors 3 and 4 have had cosmetic upgrades but have not been completely renovated. According to the asbestos abatement reports completed by Galson in 1987 and 1988, asbestos containing insulation in the basement mechanical room has been removed, as well as plaster ceilings from the basement elevator lobby and the first, second, fifth, and sixth floors. ATC observed 9" x 9" vinyl floor tiles in storage rooms in the basement, and according to Galson, asbestos containing plaster remains above the ceiling on the third and fourth floors. Due to the fact that abatement reports discussed in Section 2.7 did not address the third and fourth floors, it is likely that asbestos containing materials remain on these floors. Prior to performing demolition or renovation of these floors, asbestos surveys should be performed.

ACMs not previously identified in the buildings may be present in walls and other concealed places. U.S. Environmental Protection Agency (USEPA) regulations require performing asbestos surveys prior to renovation or demolition.

2.5 UTILITIES

According to the EBMUD *Water Quality and Supply Report – Spring 1999,* potable water in the City of Berkeley is supplied by Sierra Nevada snow melt transported by the Mokelumne Aqueducts from the Pardee Reservoir. Groundwater is not utilized as a source of potable water in the City of Berkeley.

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PG&E provides electricity and natural gas to the Site. Sanitary sewer service [redacted] led by the City of Berkeley.

2.6 WASTE MANAGEMENT AND CHEMICAL HANDLING

No solid waste or other storage container sites were observed during the site visit.

According to Ms. Aurely, there is a janitorial service that collects office waste and recycling from the tenant spaces daily. Small quantities of general janitorial cleaning and maintenance supplies in original containers are stored in the janitorial closet located on the basement level of the building.

2.7 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California

ATC reviewed the *Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California* prepared by Galson, dated May 7, 1987. Galson collected a total of forty-eight bulk asbestos samples from the building. As a result of the survey, the following materials were determined to be ACMs: boiler and breeching insulation jackets in the basement mechanical room; steam pipe lagging in the basement and pipe chases throughout the building; insulation jacket for the steam heat exchanger in the basement mechanical room; insulation on the domestic hot water tank, piping, and fittings in the basement mechanical room; plaster ceilings throughout the building; 9" x 9" brown floor tile located throughout the building; 12" x 12" beige floor tile on the first, fifth, and sixth floors; 12" x 12" white floor tile in the restrooms; and roofing materials. Galson also sampled the plaster and sheetrock walls, splined and laid-in ceiling tiles, and linoleum in the penthouse, none of which contained asbestos. Galson recommended the removal of exposed, friable asbestos, and recommended that renovations at the building consider the ACMs found during the survey.

Completion of Asbestos Removal at 1947 Center Street

ATC also reviewed a letter report prepared by Galson, entitled *Completion of Asbestos Removal at 1947 Center Street*, dated December 22, 1987. The letter stated that Galson completed visual inspections and clearance monitoring of the boiler room, first, second, fifth, and sixth floors. The clearance samples were analyzed by Transmission Electron Microscopy (TEM), and "satisfactory results were achieved for both the visual inspections and the clearance air monitoring" (Galson, 1987).

Final Report: 1947 Center Street Building – Asbestos Removal Project – 1947 Center Street – Berkeley, California

ATC reviewed the report prepared by Galson entitled *Final Report: 1947 Center Street Building – Asbestos Removal Project – 1947 Center Street – Berkeley, California*, dated February 8, 1988. According to the report, ACMs were removed from the building from August through December, 1997. The abatement project included the removal of the following materials: insulation from the steam heating, heating hot water, and domestic hot water pipes in the basement mechanical room; insulation from fittings on steam heating, heating hot water, and domestic hot water lines in the basement mechanical room; insulation from vessels in the basement mechanical room, including the hot water tank; insulation from the boilers in the basement mechanical room; insulation from breeching in the basement mechanical room; and asbestos containing plaster ceilings from the basement elevator lobby and the first, second, fifth, and sixth floors. Abatement activities were not conducted on the third and fourth floors of the building.

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Completion of Asbestos Related Work – 1947 Center Street – Berkeley, California

ATC also reviewed a letter report prepared by Galson entitled *Completion of Asbestos Related Work – 1947 Center Street – Berkeley, California,* dated March 28, 1988. The report stated that asbestos related work had been completed at the Site, consisting of the removal of asbestos containing plaster ceilings on the first, second, fifth, and sixth floors; asbestos containing thermal insulation in the basement mechanical room; exposed asbestos containing pipe insulation in the basement, stairwells, and on the roof of the first floor annex; asbestos containing pipe insulation exposed by the demolition of plaster ceilings and the washroom walls on the first, second, fifth, and sixth floors; and the sealing of all identified wall and ceiling penetrations that may still contain asbestos containing pipe insulation with spray foam.

Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California

ATC reviewed a *Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California* dated June 28, 1989, prepared by Clayton. According to Clayton, the building was built in 1947 and was occupied by State Farm Insurance Company from 1947 until 1967, when the building was purchased by Educational Testing Service (ETS). The building was purchased by 1947 Center Street Associates in 1977, when it was occupied by both ETS and the Lawrence Berkeley Laboratory Budget Office. At the time of the Clayton report in 1989, the building was occupied by the Department of Health Services: Consulting and Survey Services Genetic Disease Branch and Maternal and Child Health Care, TRW Financial Services, and the International Computer Science Institute (Clayton, 1989).

According to Clayton, the Site was historically occupied by F.W. Foss Company, which supplied wood, lumber, and coal for retail purposes. Clayton also identified Richard's service station to the east of the Site. In addition, the adjacent park across Center Street was previously occupied by lumber yards, an apartment building, and automotive mechanic shops (Clayton, 1989).

At the time of the Clayton site inspection, the elevators at the Site were serviced by Vertrans. Vertrans stated that the passenger elevators were operated by cables and the freight elevator was operated by non-PCB containing AW32 hydraulic oil. In addition, according to Clayton, the elevators were manufactured by Otis, a major elevator manufacturer that was confirmed to have never used hydraulic oils (Clayton, 1989). Therefore, the hydraulic elevator is not considered to represent an environmental concern to the Site. However, Clayton noted the presence of light ballasts in the building, which may contain PCBs.

Clayton did not find any evidence of USTs or ASTs at the Site during their environmental inspection. Clayton stated that there was a low to moderate potential that upgradient fuel leak sites may pose an environmental concern to the Site if the "required emergency response" was not performed by the responsible parties (Clayton, 1989).

2.8 DRINKING WATER ANALYSIS

Drinking water analysis was not required as part of the scope of this Phase I ESA.

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FINAL REPORT:
1947 CENTER STREET BUILDING
ASBESTOS REMOVAL PROJECT
1947 CENTER STREET
BERKELEY, CALIFORNIA

GALSON JOB NO. S7-824

PROJECT DURATION
AUGUST 25, 1987 TO DECEMBER 11, 1987

REPORT PREPARED:
FEBRUARY 8, 1988

REPORT PREPARED FOR:
1947 CENTER STREET ASSOCIATES

PREPARED BY:

COLIN S. BROWNLOW
SENIOR INDUSTRIAL HYGIENIST

APPROVED BY:

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
2116 BERKELEY WAY
BERKELEY, CA 94704

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1.0 INTRODUCTION

The 1947 Center Street building is a six story office building located at 1947 Center Street, Berkeley, California. The building was built in 1947, and served as the Berkeley offices of State Farm Insurance Co. In recent years the building served as a multi-tenant office space, with the Educational Testing Service (ETS) as the principal tenant. ETS vacated the building in the fall of 1987. The building owners, 1947 Center Street Associates, took the opportunity of the vacant floors to carry out extensive renovations in the building.

Galson Technical Services, Inc. was originally retained to carry out a survey of the building for the presence of asbestos containing materials. The results of that survey (GTS project # S7-365) were sent to the property managers (Gerson Bakar & Associates) in a report entitled Survey for Asbestos Containing Materials At 1947 Center Street, on May 7, 1987. The report states that the insulation on the steam heating and domestic hot water systems contained asbestos. The plaster ceilings and vinyl floors in the basement, 1st, 2nd, 3rd, 4th, 5th, and 6th floors contained asbestos. Four of the twelve roofing layers tested, contained asbestos. Asbestos was not detected in any other building systems.

Galson was asked to prepare the specifications for removal and disposal of asbestos containing materials in the building (GTS Project S7-647). The specifications and addendum to those specifications are contained in Appendix A of this report. Under the scope of work contained in the project specifications and the addendum, the asbestos abatement contractor was responsible for:

- Removal of insulation from steam heating, heating hot water and domestic hot water pipes in the basement mechanical room.
- Removal of insulation from fittings on steam heating, heating hot water and domestic water lines in the basement mechanical room.

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- Removal of insulation from vessels in the basement mechanical room, including the domestic hot water tank.
- Removal of insulation from the boilers in the basement mechanical room.
- Removal of insulation from the breeching in the basement mechanical room.
- Removal of asbestos containing plaster ceilings from the basement elevator lobby and the 1st, 2nd, 5th and 6th floors.

The scope of work was selected to tie in with the proposed renovation of the building which included reinsulation of the equipment in the basement mechanical room, renovation and installation of new mechanical systems on the 1st, 2nd, 5th and 6th floors. The 3rd and 4th floors were to remain occupied and were not scheduled for renovation. Prior to the start of the project, the decision was made to exclude removal of the plaster ceiling in the basement elevator lobby from the scope of work.

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- Inspection and approval of work area preparation to ensure that cross contamination of the clean areas did not occur.

- During the abatement project, collection of air samples daily (Monday through Friday) outside the barricaded work area. One set of samples was to be collected daily covering the work period from 7:30 AM to 4:30 PM. There were two purposes for the air samples: first, to monitor and detect cross-contamination and second, to document the quality of air in the clean areas. Sampling locations were to be selected to reflect:

    a. Worst case conditions - immediately outside the isolation barriers.

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IV. Locations of Asbestos-Containing/Presumed Asbestos-Containing Materials

The following materials are either known to contain, or are presumed to contain, asbestos. It is during maintenance or clean-up involving these materials that the O&M Program will be followed.

Material Type	Locations of Material
Thermal System Insulation	steam heating system, domestic hot water system
Plaster Ceilings	3rd & 4th floors
Floor Tile	3rd & 4th floors
Roofing Materials[1]	4 of 12 layers - roof

[1] Any work performed on roofing materials may negate the warranty and/or cause leaking. It is recommended that warranty information be reviewed if any roof work is performed by a licensed contractor.

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TABLE 1

ASBESTOS CONTENT OF BULK MATERIAL SAMPLES
FROM 1947 CENTER STREET

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
MER-A-BLR-1A	Boiler	Basement Mechanical Rm	70
MER-A-BRCH-2A	Breeching	Bsmt Mech. Rm	70
MER-A-STM-3A	Steam Pipe Lagging	Bsmt Mech. Rm	60
MER-STMF-4A	Steam Pipe Fittings	Bsmt Mech. Rm	Not Detected
MER-A-STM-5A	Steam Pipe Lagging	Bsmt Mech. Rm	60
MER-A-STMF-6A	Steam Pipe Fitting	Bsmt Mech. Rm	80
MER-A-HX-7A	Heat Exchanger	Bsmt Mech. Rm	60
MER-A-HWF-8A	Hot Water Fitting	Bsmt Mech. Rm	Not Detected
MER-A-DHW-9A	Domestic Hot Water Pipe	Bsmt Mech. Rm	70
MER-A-DHWF-10A	Domestic Hot Water Fitting	Bsmt Mech. Rm	50
MER-A-DHWT-11A	Domestic Hot Water Tank	Bsmt Mech. Rm	60
BSMT-PLWL-12A	Plaster Wall	Basement	Not Detected
BSMT-SHWL-13A	Sheetrock Wall	Basement	Not Detected
BSMT-PLCL-14A	Plaster Ceiling	Basement	20

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TABLE 1 (continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
BSMT-VAT-15A	Vinyl Floor Tile	Basement	20
1/F-VAT-16A	Vinyl Floor Tile	1st Floor Southern Area	10
1/F-PLCL-17A	Plaster Ceiling	1st Floor	10
1/F-VAT-18A	Vinyl Floor Tile	1st Floor Restroom	10
1/F-PLWL-19A	Plaster Wall	1st Floor	Not Detected
1/F-STM-20A	Steam Pipe Lagging	1st Floor	30
2/F-SPCT-21A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-PLWL-22A	Plaster Wall	2nd Floor	Not Detected
2/F-VAT-23A	Vinyl Floor Tile	2nd Floor	20
2/F-SPCT-24A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-SPCT-25A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-SPCT-26A	Splined Ceiling Tile	2nd Floor	Not Detected
3/F-LICT-27A	Laid-in Ceiling Tile	3rd Floor	Not Detected
3/F-PLCL-28A	Plaster Ceiling	3rd Floor	Not Detected
3/F-VAT-29A	Vinyl Floor Tile	3rd Floor	Not Detected

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TABLE 1(continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	%ASBESTOS
4/F-PLWL-30A	Plaster Wall	4th Floor	Not Detected
4/F-LICT-31A	Laid-in Ceiling Tile	4th Floor	Not Detected
5/F-PLCL-32A	Plaster Ceiling	4th Floor	10
5/F-VAT-33A	Vinyl Floor Tile	4th Floor	10
6/F-VAT-34A	Vinyl Floor Tile	4th Floor	10
6/F-PLCL-35A	Plaster Ceiling	4th Floor	10
PTHS-LINO-36A	Linoleum	Penthouse	Not Detected
A, CEN	Roofing material 1st (top) layer	N.E. Section 2nd floor	10
B, CEN	Roofing material 2nd layer	N.E. Section 2nd floor	0
C, CEN	Roofing material 3rd layer	N.E. Section 2nd floor	TRACE
D, CEN	Roofing material 4th layer	N.E. Section 2nd floor	0
E, CEN	Roofing material 5th layer	N.E. Section 2nd floor	0
F, CEN	Roofing material 1st layer	S.W. Section Top Roof	0
G, CEN	Roofing material 2nd layer	S.W. Section Top Roof	0
H, CEN	Roofing material 3rd layer	S.W. Section Top Roof	0

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TABLE 1(continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
I, CEN	Roofing material 4th layer	S.W. Section Top Roof	0
J, CEN	Roofing material 1st layer	N.W. Section Top Roof	30
K, CEN	Roofing material 2nd layer	N.W. Section Top Roof	40
L, CEN	Roofing material 3rd layer	N.W. Section Top Roof	20

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Limited Asbestos Survey For Facility Repairs

for

City of Berkeley, CA
1947 Center Street
Berkeley, CA

Acumen Project No. COB 1503

July, 2015

Prepared for:

Ms. Joy Brown
Environmental Compliance Specialist
Public Works Department - City of Berkeley
1326 Allston Way, Berkeley, CA 94702

This report was prepared by (July 11, 2015)

Paul M. Spillane, CIH, CAC
Principal Industrial Hygienist
Certified Asbestos Consultant: #10-4630

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Abstract

The objective of our services is to determine the presence of asbestos containing material (ACM) in areas planned for facility upgrades and renovations. We understand upgrades and renovations will involve a multiphase remodel and repairs to the 1947 Center Street (Berkeley, CA) building that was constructed in the mid-20th Century (1947), but extensively remodeled in 1987 and 2003.

A previous asbestos report from Galson Technical Services (Galson, 1987) indicated steam heating and domestic hot water thermal system insulation (TSI) contained asbestos. Plaster ceilings and vinyl floor tile were also reported to be ACM. Galson also discovered asbestos in roofing materials, but there was no mention in these reports regarding testing of exteriors. Materials that tested negative at that time included plaster walls, sheetrock, (drywall/taping mud), linoleum (vinyl sheet flooring) and ceiling tiles (splined and lay-in types).

Based on subsequent Galson letter reports (1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings the 3rd and 4th floors, vinyl floor tiles (throughout) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however an asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

The recent testing by Acumen Industrial Hygiene, Inc. (Acumen) on June 22, 2015 discovered ACM is present in exterior paint and texture on concrete, in exterior window putty and in skylight putty. We also confirmed the presence of asbestos as 9x9" vinyl floor tiles and mastics under carpets and in mechanical closets of 1st, 2nd, 3rd and 4th floors. Asbestos was not detected in pipe chase debris, drywall/taping mud, plaster walls or exterior duct tape (2nd floor roof).

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1.0 Introduction

The purpose of this report is to provide the findings of a limited asbestos containing materials (ACM) survey Acumen Industrial Hygiene, Inc. (Acumen) conducted at the above referenced facility (1947 Center Street, Berkeley, California). We understand upgrades and renovations will involve a multiphase remodel and repairs to the 1947 Center Street (Berkeley, CA) building that was constructed in the mid-20th Century (1947), but extensively remodeled in 1987 and 2003. Mr. Paul Spillane, CIH, CAC, conducted the investigation at the building(s) on June 23, 2015.

The main objective of our services is to provide project guidance for complying with applicable regulations, including California Department of Occupational Safety & Health (Cal-OSHA), California Department of Toxic Substances Control (DTSC) and Bay Area Air Quality Management District (BAAQMD) as they relate to asbestos. Our scope of work was as follows:

- Sample exterior window and skylight caulking for asbestos. This material is often assumed to contain asbestos and because it gets replaced on an "as needed" based throughout the history of the building. Multiple samples are required to prove it does not contain asbestos.
- Collect asbestos samples of exterior textured paint on concrete. This will need to be disclosed to contactors working on exteriors, because their work may disturb this material.
- Sample the debris found on the basement due to the water leaks.
- Sample original drywall/plasters in the center pipe chase.
- Based on the areas of planned remodel, we understand that some flooring, ceilings and drywall will be demolished.

2.0 Summary of Investigation

2.1 Asbestos Containing Materials Inspection Methods

The inspection consisted of a walkthrough of accessible areas at the site to identify and sample suspect ACM containing materials. Acumen's standard survey protocol is to conduct asbestos inspections in three steps: conducting a review of existing building survey records and/or drawings; physically surveying structure for suspect materials; and documenting our findings in a written report format. There were no previous survey documents of the building for review.

Asbestos bulk samples are physically collected by taking a small core section of the suspect asbestos material using hand tools. Acumen noted significant factors of suspect ACM including conditions, homogeneity, locations, quantity, potential for damage or disturbance, and friability. Friability describes the ability of a material to be crushed or crumbled, when dry, into a powder using hand pressure. Where suspect materials were noted, bulk samples were collected. At the building, Acumen collected samples of various suspect ACM and lead containing materials. We collected forty-four (44) total asbestos bulk samples.

Samples were given a unique identification number and submitted with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. Micro Analytical Laboratories, Inc. is accredited to analyze asbestos and lead samples. Micro holds the National Institute of Standards and Technology (NIST)/ National Voluntary Laboratory Accreditation Program (NVLAP) accreditation for Transmission Electron Microscopy (TEM) (ISO/IEC 17025:1999); Polarized Light Microscopy (PLM)

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(EPA-600/M4-82-020, ISO 9002:1994) Airborne Asbestos, Lab Code #101872-0 and; NIST (NVLAP), Bulk Asbestos, Lab Code 101872-0; and AIHA ELLAP Industrial Hygiene Laboratory Program, #101768.

2.2 Previous reports of Asbestos Containing Materials

Acumen reviewed excerpts of the following reports:

- *Survey for Asbestos Containing Materials at 1947 Center Street - Berkeley, California*, by Galson Technical Services, May 7, 1987.
- *Completion of Asbestos Removal at 1947 Center Street*, by Galson Technical Services, December, 22, 1987.
- *Final Report: 1947 Center Street Building - Asbestos Removal Project - 1947 Center Street – Berkeley, California.* by Galson Technical Services, March 28, 1988.
- *Phase I Environmental Site Assessment, Commercial Building, 1947 Center Street, Berkeley, California 94704,* ATC Associates Inc., June 7, 1999.
- Asbestos Abatement Project Report, Conducted at 1947 Center Street, 2nd Floor, *Berkeley, California.* Protech Consulting and Engineering, March 2005.

Based on review of these reports, Galson Technical Services identified steam heating and domestic hot water insulation systems contained asbestos (Galson, 1987). Plaster ceilings and vinyl floor tile also reported to be asbestos containing materials (ACM). Galson also discovered asbestos in roofing materials, but there was no mention in the reports regarding testing of exteriors.

Based on subsequent Galson letter reports (Galson, 1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings on basement, 3rd and 4th floors, vinyl floor tiles (unclear where it was left in place) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however a Protech asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

3.0 Findings and Discussion

The 1947 Center Street building is a six-story office building plus basement located at 1947 Center Street, Berkeley, California. The building was reportedly constructed in 1947 slab-on-grade using poured in-place concrete. The basic structure is rebar-reinforced concrete.

During this recent survey, Acumen sampled exterior texture paint on concrete for asbestos. Of the seven (7) samples collected from exterior textured wall paint, asbestos was present in one of the seven (sample COB1503-01A, Photo 1). This paint is assumed to contain lead. Acumen sampled exterior window putty located between glass and metal sash at fifteen (15) locations and was also found to contain <1% to 2% asbestos in three of the 15 collected (Samples COB1503-02A, COB1503-02D and COB1503-02J, Photo 2).

Acumen composite sampled the debris located at a basement closet under the pipe chase where a recent water leak has occurred. Asbestos was not detected (Sample COB1503-04A), nor was asbestos detected in the plaster walls and drywall walls tested (Samples COB1503-03A, COB1503-03B, COB1503-03C, COB1503-03D, COB1503-03E, COB1503-03F, COB1503-03G, COB1503-09A, COB1503-09B, COB1503-09C).

The roofs were previously determined to contain asbestos by Galson, (1987). Acumen sampled the

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skylight putty on the second floor roof and determined it to contain 5% asbestos (Samples COB1503-05A, COB1503-05B, COB1503-05C).

There is an old HVAC system on this roof and Acumen Sampled the duct tape which does not contain asbestos (Samples COB1503-06A, COB1503-06B, COB1503-06C).

Asbestos flooring was found to be present on floors 1 through 4. On the first floor waiting room, brown 9x9" vinyl floor tiles are present under carpet. On the second floor, vinyl floor tiles are present are not under the carpets (where inspected), however brown 9x9" vinyl floor tiles are present in the mechanical rooms. Acumen sampled flooring under carpets on the 3rd and 4th floors and confirmed asbestos is present (Samples COB1503-07A, COB1503-07B, COB1503-07C). Previously vinyl sheet flooring (as linoleum) was indicated as none-detected by Galson (1987). We collected one sample of vinyl sheet flooring from mechanical room #322 on the third floor, which does not contain asbestos (Sample COB1503-08A).

Previously plaster ceilings were reported to contain 10% asbestos by Galson (1987). Acumen did not observe plaster ceilings during our inspection, however we cannot rule out that these may be present above drop ceilings.

4.0 Summary of Findings

4.1 Asbestos Related Findings

The results of this investigation sampling determined that ACM materials are present at the following locations. These materials must be handled by a licensed abatement contractor, if impacted during the planned renovations.

Asbestos Containing Materials

Materials Sampled and confirmed ACM June 23, 2015:

- Exterior textured light orange paint on concrete, Front elevation (south elevation) Ground floor – right side: Paint (Violet /Tan): 2% Chrysotile Asbestos, Texture Coating (Gray / Beige): 4% Chrysotile Asbestos (Photo 1). Note that asbestos was detected in only one (3) of the seven (7) exterior paint locations sampled;
- Window Putty: <1% to 2% Chrysotile Asbestos (Photo 2). Note that asbestos was detected in three (3) of the fifteen (15) window putties sampled;
- Skylight Caulking: 5% to 6% Chrysotile Asbestos (Photo 3);
- 9x9" vinyl floor tile and mastic: 3% to 15% Chrysotile Asbestos, mastic is inseparable (Photo 4);

Materials previously reported to contain asbestos (Galson, 1987):

- Pipe Insulation (Located in non-accessible locations such as pipe chases, risers and soffits);
- Plaster ceilings (Potentially above drop ceilings, Basement, 3rd floor and 4th floor);
- Roofing materials.

Materials that were sampled and do not contain asbestos include the following:

- Plaster walls and interior paint
- Drywall/taping mud and paint
- Duct Tape (Second floor roof HVAC)
- Debris in basement closet (from recent leak)
- Vinyl Sheet Flooring

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5.0 Recommendations

5.1 Recommendations for ACM During Building Renovations

1. Notify potential renovation contractors of the presence of ACM in the building. Disturbance of ACM requires special training and procedures. BAAQMD regulations require that ACM be properly removed and disposed, prior to demolition or renovation where they would be disturbed. A Cal-OSHA registered asbestos contractor is required for work that involves ACM.
2. Notify potential renovation or demolition contractors of the presumed presence of lead-containing paints at the building. Disturbance of these materials require compliance with Cal-OSHA's lead in construction regulation.
3. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of asbestos during renovations. Asbestos work should be monitored for compliance by a third party Certified Asbestos Consultant to document proper handling and disposal.

5.2 Recommendations For Managing ACM In Place (If leaving ACM in place)

1. Notify building occupants and employees of the presence of asbestos, as required under California Health & Safety Code 25915.7-25919.7 (Connelly Bill) and by Cal-OSHA regulations. The materials have a low fiber release potential if it remains undisturbed. Notify contractor and maintenance employees of this report.
2. Prepare and implement an asbestos Operations and Maintenance (O&M) program to manage ACMs that will remain in place in the building. This asbestos O&M program should detail roles and responsibilities for managing ACM at the complex. The O&M program should establish written policies and procedures for asbestos safe work practices to minimize the potential for unauthorized disturbance of ACM, monitor the condition of ACM and respond to damage or deterioration of ACM, with the goal of preventing the release of airborne asbestos fibers. Implementation of the O&M program will require that facility employees receive annual asbestos training. The O&M program should remain in place as long as ACM remains in the buildings.
3. The presence of lead based paints should also be managed under an O&M program. The O&M program should establish written policies and procedures for lead-safe work practices as required by EPA and California laws. The O&M program should establish policy for monitoring the condition of lead-based paints and respond to damage or deterioration of lead, with the goal of preventing lead poisoning.
4. The California – Proposition 65 rules require posting a sign warning of potential hazards, because of the presence of leaded paint and asbestos

6.0 Conclusions

Acumen has completed an asbestos and lead survey of 1947 Center Street (Berkeley, CA). This investigation found asbestos in exterior paint, window putty, skylight caulking and vinyl floor tiles/mastic. Previous surveys indicated the presence of asbestos thermal system insulation and ceiling plasters, which may still be present at the building in inaccessible locations. Work that disturbs these materials must be conducted by Cal-OSHA registered asbestos contractor and documented by a third party Certified Asbestos Consultant. For ACMs not abated at this time, these would need to be managed under an O&M program.

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Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

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Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM or lead containing materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM/ACCM or other hazardous materials at this facility. The intent of this report is for use in planning for demolition. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the demolition uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined "lead hazard evaluation" or "lead inspection".

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the owner/client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumens' inspection of the site.

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Table 1

Asbestos Containing Material
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	BAAQMD [2]	Sample No.
Front Elevation South Elevation Ground Floor - Right	Exterior Textured Light Orange Paint on Concrete	Violet/Tan Paint: 2% CH Gray/Beige Texture Coating: 4% CH	RACM	COB1503-01A
South Elevation Fourth Floor, Center	Window Putty	Yellow/Beige Putty: <1% CH Paint: ND	Cat II (NF)	COB1503-02A
Outside Second Floor North Side Patch	Window Putty	Gray Blue Putty: <1% CH Paint: ND	Cat II (NF)	COB1503-02D
South Elevation, Third Floor Right	Window Putty	White Putty: 2% CH Paint: ND	Cat II (NF)	COB1503-02J
Skylight East Side Ground Outdoor	Skylight Putty	6% CH	Cat II (NF)	COB1503-05A
Skylight North Side Outdoor Ground Second Floor	Skylight Putty	Gray Putty: 5% CH Black Putty/Caulk: ND	Cat II (NF)	COB1503-05C
Third Floor West Side Electrical Room 303	9x9" Brown Vinyl Floor Tiles with Black Mastic	Brown Floor Tile: 15% CH	Cat I (NF)	COB1503-07A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). CH indicates Chrysotile asbestos, AC indicates Actinolite asbestos, TR indicates Tremolite asbestos, AM indicates Amosite asbestos, CR indicates Crocidolite, PP indicates that sample was not analyzed because of Prior Positive and ND indicates no asbestos detected.
2. BAAQMD indicates classification into friable (Regulated Asbestos Containing Material, RACM) or non-friable ACM (Category I or Category II Non-Friable).
3. EQ means estimated quantity either in square feet (SF) or linear feet (LF).

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Table 1(continued)

Asbestos Containing Material
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	BAAQMD [2]	Sample No.
Floor Tile Under Carpet South Side Third Floor	9x9" Brown Vinyl Floor Tiles with Black Mastic	Tan Floor Tile: 3% CH	Cat I (NF)	COB1503-07B
Carpet, Fourth Floor Southeast Side	9x9" Brown Vinyl Floor Tiles with Black Mastic	Brown Floor Tile: 15% CH Yellow Carpet Mastic: ND	Cat I (NF)	COB1503-07C

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). CH indicates Chrysotile asbestos, AC indicates Actinolite asbestos, TR indicates Tremolite asbestos, AM indicates Amosite asbestos, CR indicates Crocidolite, PP indicates that sample was not analyzed because of Prior Positive and ND indicates no asbestos detected.
2. BAAQMD indicates classification into friable (Regulated Asbestos Containing Material, RACM) or non-friable ACM (Category I or Category II Non-Friable).
3. EQ means estimated quantity either in square feet (SF) or linear feet (LF).

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Table 2

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
West Elevation on Ground Floor Left	Exterior Textured Light Orange Paint on Concrete	White Paint : ND Gray Texture Coating : ND Concrete: ND	COB1503-01B
Skylight North Center Elevation	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01C
East Elevation Outdoor, Second Floor	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01D
West Elevation Second Floor Window	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND	COB1503-01E
North Elevation Parapet	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating : ND Concrete: ND	COB1503-01F
East Side Fourth Floor Window Outside	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01G
South Side, Center First Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02B
Sky Light, North Side Elevation (Center) Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02C
East Elevation Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02E
Skylight Window Second Floor North Side Elevation	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02F
West Elevation, Second Floor Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02G

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

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Table 2 (continued)

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
West Elevation, Patch Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02H
East Elevation, Third Floor Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02I
Third Floor South Elevation Left Window	Window Putty	White Putty: ND Paint: ND	COB1503-02K
West Side Elevation Third Floor Window	Window Putty	Yellow/Beige Putty: ND Paint: ND	COB1503-02L
West Side Elevation Window Fourth Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02M
Fourth Floor, North Side	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02N
Fourth Floor, East Side Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02O
Fourth Floor South	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Texture Compound /Paint: ND	COB1503-03A
Fourth Floor Center Closet Of Electrical	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03B
Second Floor West Side Mechanical Room	Interior Plaster Center Window	Drywall: ND	COB1503-03C
Plaster Wall in Electric Room Third Floor Room 303	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03D
Inner Wall, Room 303 Electric Room	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND	COB1503-03E

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

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Table 2 (continued)

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
Mechanical Room 322 The Wall	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03F
Fourth Floor Women's Bathroom Wall	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Adhesive: ND	COB1503-03G
Basement, Ster. Room 009 Lab	Interior Debris	Plaster: ND Skim Coat: ND	COB1503-04A
Basement, Ster. Room 009	Interior Debris	Sheetrock: ND Compound: ND	COB1503-04A
Skylight North Side Outdoor Ground	Skylight Putty	ND	COB1503-05B
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06A
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06B
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06C
Mechanical Room 322 Linoleum Floor Third Floor	Yellow Vinyl Sheet Flooring	Vinyl Sheet Flooring: ND Backing / Mastic: ND	COB1503-08A
Janitor's Room, Fourth Floor in The Wall	Drywall Taping Mud	Drywall: ND Taping Mud: ND Paint: ND	COB1503-09A
Fourth Floor East Side Mechanical Room	Drywall Taping Mud	Drywall: ND Taping Mud: ND Tape / Paint: ND	COB1503-09B
First Floor South Side Center Wall	Drywall Taping Mud	Drywall: ND Taping Mud: ND Tape / Paint: ND	COB1503-09C

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

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Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-01A** Micro #: 207373-01 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE FRONT ELEVATION (SOUTH ELEVATION) GROUND FLOOR - RIGHT**	**PAINT (VIOLET /TAN): 2% CHRYSOTILE ASBESTOS** **TEXTURE COATING (GRAY / BEIGE): 4% CHRYSOTILE ASBESTOS**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01B** Micro #: 207373-02 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE WEST ELEVATION ON GROUND FLOOR LEFT**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01C** Micro #: 207373-03 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE SKYLIGHT NORTH CENTER ELEVATION**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01D** Micro #: 207373-04 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE EAST ELEVATION OUTDOOR, 2ND FLOOR**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01E** Micro #: 207373-05 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE WEST ELEVATION 2ND FLOOR WINDOW**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-01F** Micro #: 207373-06 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE NORTH ELEVATION PARAPET**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01G** Micro #: 207373-07 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE EAST SIDE 4TH FLOOR WINDOW OUTSIDE**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-02A** Micro #: 207373-08 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SOUTH ELEVATION FOURTH FLOOR, CENTER**	**PUTTY (YELLOW / BEIGE): < 1% CHRYSOTILE ASBESTOS** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02B** Micro #: 207373-09 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SOUTH SIDE, CENTER 1ST FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02C** Micro #: 207373-10 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SKY LIGHT, NORTH SIDE ELEVATION (CENTER) 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-02D** Micro #: 207373-11 Analyst: GR GR **WINDOW PUTTY** **OUTSIDE 2ND FLOOR** **NORTH SIDE PATCH**	**PUTTY (GRAY BLUE): < 1% CHRYSOTILE ASBESTOS** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02E** Micro #: 207373-12 Analyst: GR **WINDOW PUTTY** **EAST ELEVATION 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02F** Micro #: 207373-13 Analyst: GR **WINDOW PUTTY** **SKYLIGHT WINDOW 2ND FLOOR** **NORTH SIDE ELEVATION**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02G** Micro #: 207373-14 Analyst: GR **WINDOW PUTTY** **WEST ELEVATION, 2ND FLOOR WINDOW**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02H** Micro #: 207373-15 Analyst: GR **WINDOW PUTTY** **WEST ELEVATION, PATCH 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

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Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: COB1503-02I Micro #: 207373-16 Analyst: GR WINDOW PUTTY EAST ELEVATION, 3RD FLOOR WINDOW	PUTTY (WHITE / GRAY): NONE DETECTED PAINT: NONE DETECTED	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: COB1503-02J Micro #: 207373-17 Analyst: GR GR WINDOW PUTTY SOUTH ELEVATION, 3D FLOOR (RIGHT)	PUTTY (WHITE): 2% CHRYSOTILE ASBESTOS PAINT: NONE DETECTED	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: COB1503-02K Micro #: 207373-18 Analyst: GR GR WINDOW PUTTY SOUTH ELEVATION LEFT WINDOW 3RD FLOOR	PUTTY (WHITE): NONE DETECTED PAINT: NONE DETECTED	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: COB1503-02L Micro #: 207373-19 Analyst: GR GR WINDOW PUTTY WEST SIDE ELEVATION 3RD FLOOR WINDOW	PUTTY (YELLOW / BEIGE): NONE DETECTED PAINT: NONE DETECTED	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: COB1503-02M Micro #: 207373-20 Analyst: GR WINDOW PUTTY WEST SIDE ELEVATION WINDOW 4TH FLOOR	PUTTY (WHITE / GRAY): NONE DETECTED PAINT: NONE DETECTED	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: _____ 6/24/2015
Gamini Ranatunga, Ph.D. Date Reported

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BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-02N** Micro #: 207373-21 Analyst: GR **WINDOW PUTTY** **4TH FLOOR, NORTH SIDE**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02O** Micro #: 207373-22 Analyst: GR **WINDOW PUTTY** **4TH FLOOR, EAST SIDE WINDOW**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-03A** Micro #: 207373-23 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **FOURTH FLOOR SOUTH**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **TEXTURE COMPOUND / PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03B** Micro #: 207373-24 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **FOURTH FLOOR CENTER CLOSET** **OF ELECTRICAL**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03C** Micro #: 207373-25 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **2ND FLOOR WEST SIDE MECHANICAL ROOM**	**DRYWALL: NONE DETECTED** **(NO PLASTER IN THE SAMPLE)**	NFM: 'GYPSUM' (CALCIUM SULFATE).

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

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PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
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Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-03D** Micro #: 207373-26 Analyst: BK **INTERIOR PLASTER CENTER WINDOW PLASTER WALL IN ELECTRIC ROOM 3RD FLOOR (ROOM 303)**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03E** Micro #: 207373-27 Analyst: BK **INTERIOR PLASTER CENTER WINDOW INNER WALL, ROOM 303 ELECTRIC ROOM**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03F** Micro #: 207373-28 Analyst: BK **INTERIOR PLASTER CENTER WINDOW MECHANICAL ROOM 322 THE WALL**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03G** Micro #: 207373-29 Analyst: BK GR **INTERIOR PLASTER CENTER WINDOW WOMEN'S BATHROOM WALL FOURTH FLOOR**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **ADHESIVE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-04A** Micro #: 207373-30A Analyst: BK **INTERIOR DEBRIS BASEMENT, STER. ROOM 009** ***LAB NOTE: PLASTER***	**PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-04A** Micro #: 207373-30B Analyst: BK **INTERIOR DEBRIS** **BASEMENT, STER. ROOM 009** ***LAB NOTE: SHEETROCK***	**SHEETROCK: NONE DETECTED** **COMPOUND: NONE DETECTED**	NFM: GYPSUM (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-05A** Micro #: 207373-31 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT EAST SIDE GROUND OUTDOOR**	**6% CHRYSOTILE ASBESTOS**	3 % CELLULOSE 5 % WOLLASTONITE / POLYETHYLENE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-05B** Micro #: 207373-32 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT NORTH SIDE OUTDOOR GROUND**	**NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-05C** Micro #: 207373-33 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT NORTH SIDE OUTDOOR GROUND** **2ND FLOOR**	**PUTTY (GRAY): 5% CHRYSOTILE ASBESTOS** **PUTTY / CAULK (BLACK): NONE DETECTED**	3 % CELLULOSE 5 % WOLLASTONITE / POLYETHYLENE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-06A** Micro #: 207373-34 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-06B** Micro #: 207373-35 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-06C** Micro #: 207373-36 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-07A** Micro #: 207373-37 Analyst: GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **WEST SIDE ELECTRICAL ROOM, 303 3RD FLOOR**	**FLOOR TILE (BROWN): 15% CHRYSOTILE ASBESTOS** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **COB1503-07B** Micro #: 207373-38 Analyst: GR GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **FLOOR TILE UNDER CARPET** **SOUTH SIDE 3RD FLOOR**	**FLOOR TILE (TAN): 3% CHRYSOTILE ASBESTOS** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **COB1503-07C** Micro #: 207373-39 Analyst: GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **CARPET, 4TH FLOOR** **SOUTHEAST SIDE 9X9**	**FLOOR TILE (BROWN): 15% CHRYSOTILE ASBESTOS** **CARPET MASTIC (YELLOW): NONE DETECTED** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/23/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-08A** Micro #: 207373-40 Analyst: GR **YELLOW VSF** **MECHANICAL ROOM 322** **LINOLEUM FLOOR 3RD FLOOR**	**VINYL SHEET FLOORING: NONE DETECTED** **BACKING / MASTIC: NONE DETECTED**	15 % CELLULOSE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-09A** Micro #: 207373-41 Analyst: GR **DRYWALL TAPING MUD** **JANITOR'S ROOM, FOURTH FLOOR** **IN THE WALL**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-09B** Micro #: 207373-42 Analyst: GR **DRYWALL TAPING MUD** **MECHANICAL ROOM, EAST SIDE** **4TH FLOOR**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **TAPE / PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-09C** Micro #: 207373-43 Analyst: GR **DRYWALL TAPING MUD** **1ST FLOOR SOUTH SIDE CENTER WALL**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **TAPE / PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

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ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: 1947 Center Street
Location: Berkeley, CA

Laboratory: MAL

Turnaround Time: (Normal) / ~~24 Hour~~ / ~~Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
1	COB 1503 01A	EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE / FRONT ELEVATION (SOUTH ELEVATION) GROUND FL = RIGHT	PLM ASBESTOS
2	01B	~~west~~ elevation ground floor left	
3	01C	sky light north center elev.	
4	01D	east elevation outdoor, 2nd floor	
5	01E	west elevation 2nd floor window	
6	01F	north elevation parapet	
7	01G	eastside 4th floor window outside	
8	02A	window puddy (1 SAMP) / south elevation fourth floor, center	
9	02B	south side, center 1st floor	
10	02C	sky light, northside (center) elevation 2nd floor	

Email to lab@acumen-ih.com

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TEL 415 242 6060 FAX 415 242 6006
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BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: <Same>

Location:

Laboratory: MAL

Turnaround Time: Normal / 24 Hour / ~~Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
11	COB1503 02D	window putty / outside ~~window~~ 2nd floor northside patch	PLM Asbesestos
12	02E	/ east elevation 2nd floor	
13	02F	/ sky light window 2nd flor northside elevation	
14	02G	/ west elevation, 2nd floor window	
15	02H	/ west elevation, patch 2nd floor	
16	02I	/ east elevation, 3rd floor window	
17	02J	/ south elevation, 3rd floor (right)	
18	02K	/ south elevation window ~~west~~ left 3rd floor	
19	02L	/ westside 3rd floor elevation window	
20	02M	/ westside window elevation 4th floor	

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1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: (SAME)

Laboratory: MAL

Location:

Turnaround Time: Normal / ~~24 Hour / Rush~~

Sample Date: 22.6.15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
21	COB—1503 021	window putty / 4th floor, northside	PLM Asbestos
22	020	/ 4th floor, eastside window	
23	03A	interior plaster / fourth floor, south center window ~~closet (/) window (do not test)~~	
24	03B	/ fourth floor center closet of electrical	
25	03C	/ 2nd floor, westside mechanical room	
26	03d	/ plaster wall in electric room 3rd floor (room 303)	outer wall
27	03E	/ inner wall, room 303 electric room	
28	03F	/ mech. room 322 the wall	
29	036	/ womens bathroom wall fourth floor	
30	04A	interior debris / Basement, ster. room A009	

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INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

20737

Project No. COB 1503

Job Site: <SAME>

Location:

Laboratory: MAC

Turnaround Time: Normal / 24 Hour / Rush

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

Sample No.	Description/ Location	Analysis
COB 1503 05A	Skylight putty / skylight eastside ground. outdoor	PLM Asbestos
31 32 05 B	/ Skylight northside outdoor ground	
33 05C	/ skylight northside outdoor ground. 2nd floor	

Email to lab@acumen-ih.com

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207373

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INDUSTRIAL HYGIENE INC
1032 IRVING ST - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. CoB 1503

Job Site: <Jame>

Laboratory: MAL

Location:

Turnaround Time: (Normal) / ~~24 Hour / Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
34	CoB 1503 06A	Duct seam, tape & glue / west elevation 2nd floor duct	PLM Asbestos
35	06B	/ west elevation 2nd floor duct	
36	06C	/ west elevation 2nd floor duct	
37	07A	9x9" VFT BRWN w/ BLK MASTIC / westside electrical room, 303, 3rd floor	
38	07B	/ ~~Yellow~~ floortile under carpet, southside 3rd floor	
39	07C	/ carpet, 4th floor southeast side 9x9	
40	~~08~~ 08A	Yellow VSF / mechanicle room 322 linellium floor 3rd floor	
41	09A	Drywall taping mud / Janitors room, fourth floor in the wall	
42	09B	/ mech room, eastside 4th floor	
43	09C	/ 1st floor southside center wall	

Email to lab@acumen-ih.com

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Appendix B

Floor Plans

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

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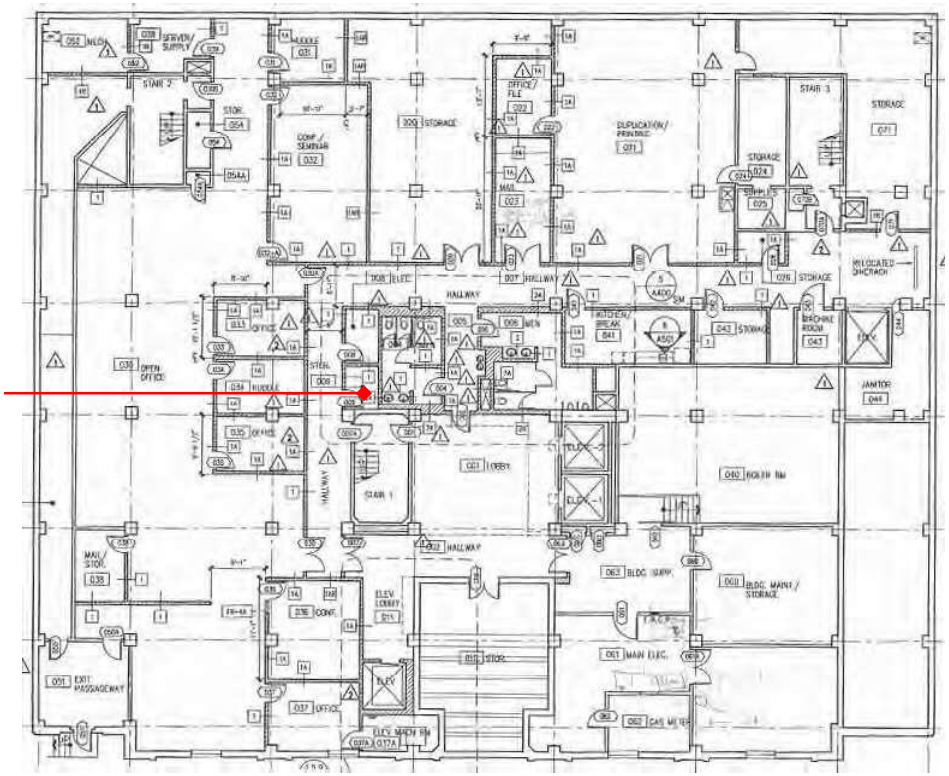
Figure 1

Sampling Locations
1947 Center Street – Basement
Berkeley, CA

June 22, 2015



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

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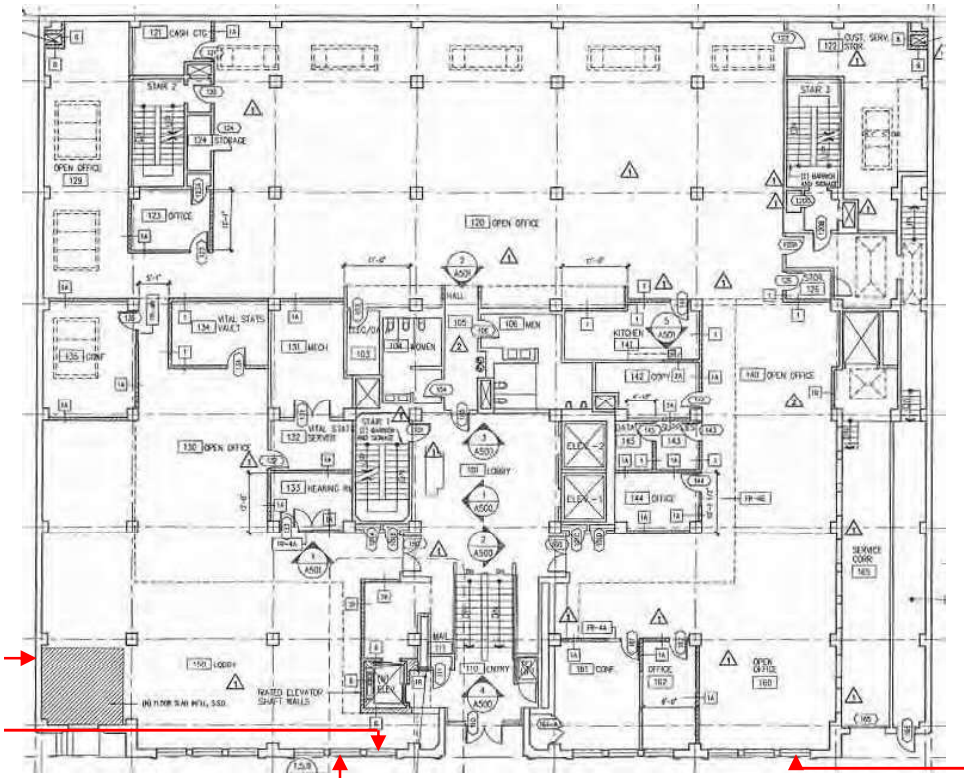
Figure 2

Sampling Locations
1947 Center Street – 1st Floor
Berkeley, CA

June 22, 2015



COB1503-01B
Exterior Textured Light Orange Paint on Concrete

COB1503-09C
Drywall Taping Mud

COB1503-02B
Window Putty

COB1503-01A
Exterior Textured Light Orange Paint on Concrete

Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

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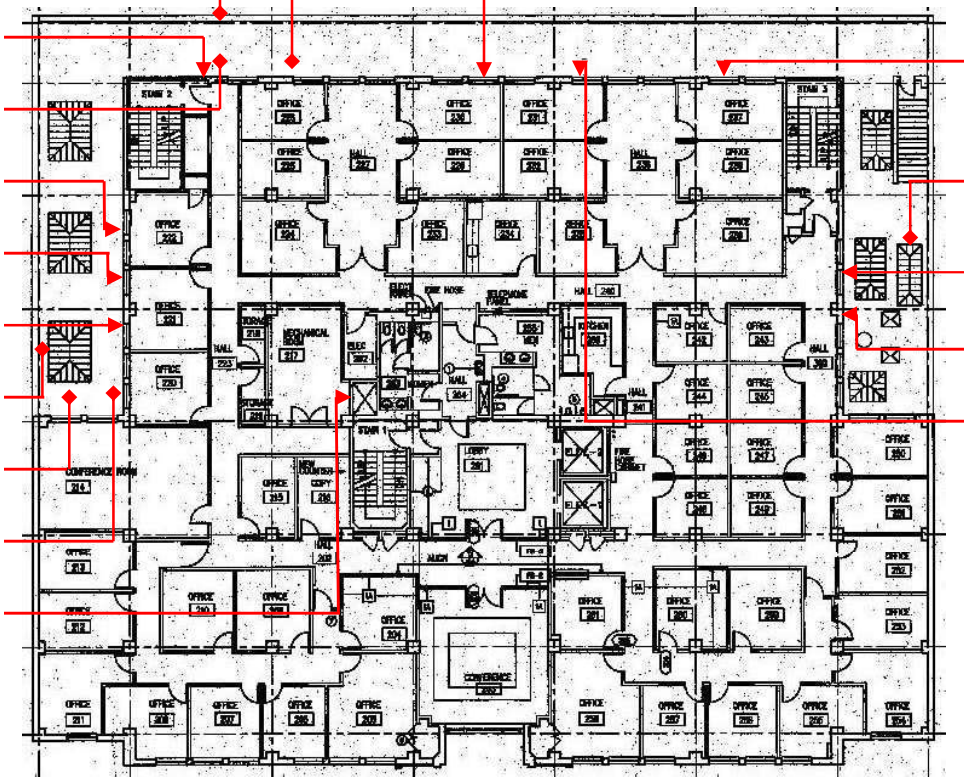
Figure 3

Sampling Locations
1947 Center Street – 2nd Floor
Berkeley, CA

June 22, 2015



COB1503-05B
Skylight Putty

COB1503-01F
Exterior Textured Light Orange Paint on Concrete

COB1503-02F
Window Putty

COB1503-05C
Skylight Putty

COB1503-02G
Window Putty

COB1503-01E
Exterior Textured Light Orange Paint on Concrete

COB1503-02H
Window Putty

COB1503-06A
Duct Seam, Tape Glue

COB1503-06B
Duct Seam, Tape Glue

COB1503-06C
Duct Seam, Tape Glue

COB1503-03C
Interior Plaster Center Window

COB1503-02C
Window Putty

COB1503-02D
Window Putty

COB1503-05A
Skylight Putty

COB1503-02E
Window Putty

COB1503-01D
Exterior Textured Light Orange Paint on Concrete

COB1503-01C
Exterior Textured Light Orange Paint on Concrete

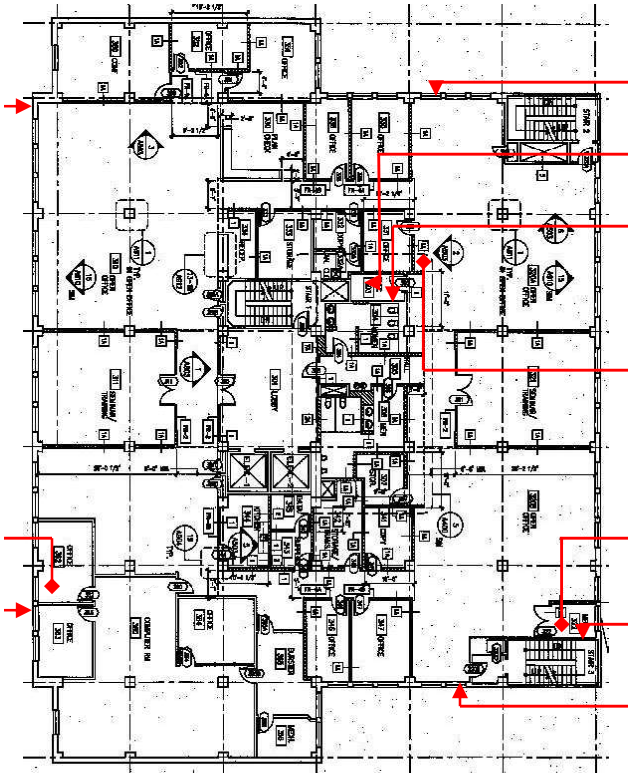
Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Figure 4

Sampling Locations
1947 Center Street – 3rd Floor
Berkeley, CA

June 22, 2015



COB1503-02K
Window Putty

COB1503-02L
Window Putty

COB1503-03E
Interior Plaster Center Window

COB1503-03D
Interior Plaster Center Window

COB1503-07A
9x9" Brown Vinyl Floor Tiles with Black Mastic

COB1503-07B
9x9" Brown Vinyl Floor Tiles with Black Mastic

COB1503-08A
Yellow Vinyl Sheet Flooring

COB1503-02J
Window Putty

COB1503-03F
Interior Plaster Center Window

COB1503-02I
Window Putty

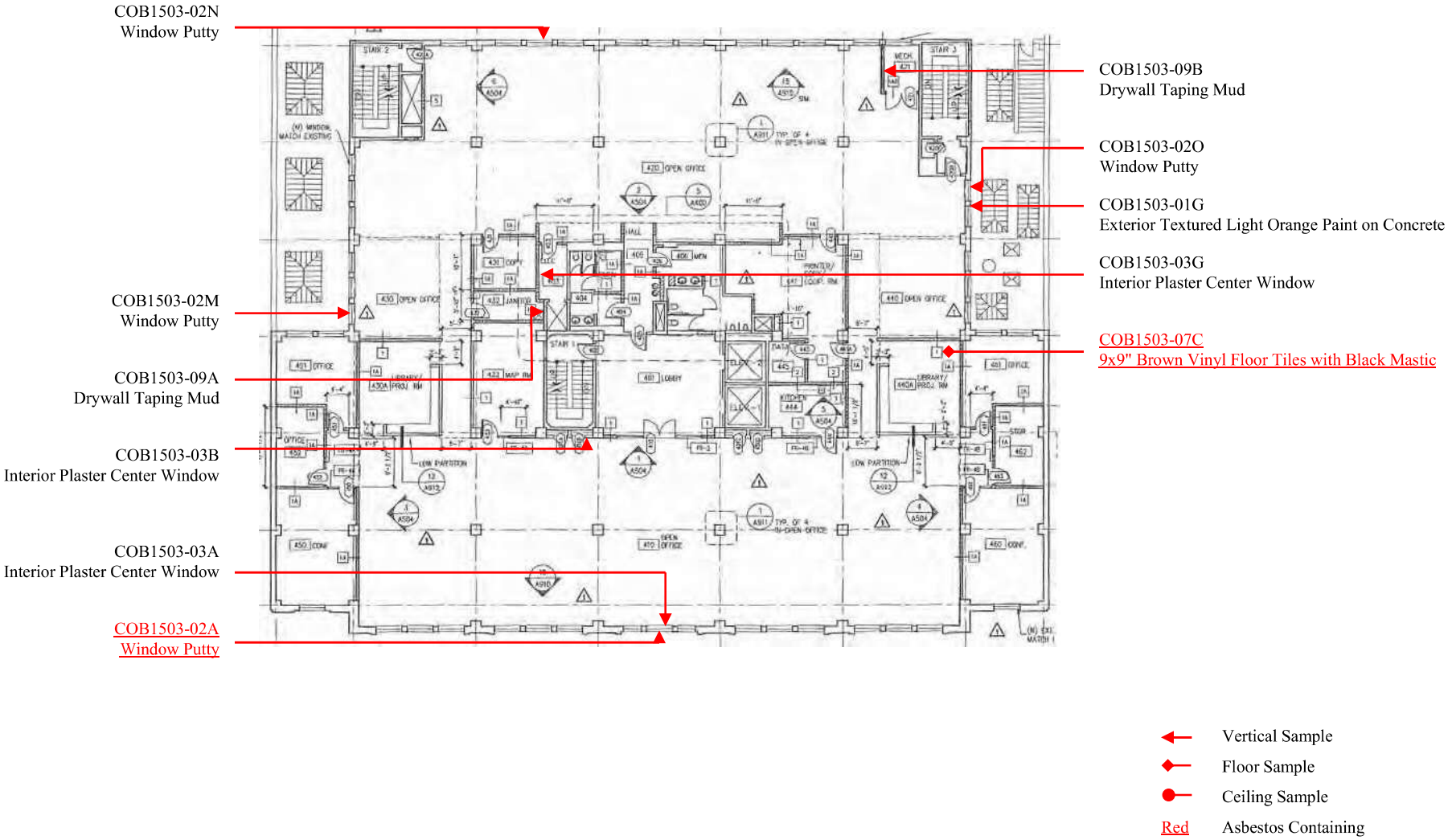
Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Figure 5

Sampling Locations
1947 Center Street – 4th Floor
Berkeley, CA

June 22, 2015



Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Appendix C

Photographs

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 1

Exterior textured light orange paint on concrete, Front elevation (south elevation) Ground floor – right side:
Paint (Violet /Tan): 2% Chrysotile Asbestos, Texture Coating (Gray / Beige): 4% Chrysotile Asbestos
Note that asbestos was detected in only one (3) of the seven (7) exterior paint locations sampled.

Photo 2

Window Putty: <1% to 2% Chrysotile Asbestos.
Note that asbestos was detected in three (3) of the fifteen (15) window putties sampled.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 3
Skylight Caulking: 5% to 6% Chrysotile Asbestos

Photo 4
9x9” vinyl floor tile and mastic: 3% to 15% Chrysotile Asbestos, mastic is inseparable

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

February 9, 2016

Mr. Paul Kaushal
Public Works Department
City of Berkeley
1326 Allston Way
Berkeley, CA 94702

RE: Limited Lead-Based Paint Testing For Construction
1947 Center Street
Berkeley, CA 94112

Dear Paul:

The purpose of this letter is to report and discuss the findings of lead-paint sampling Acumen Industrial Hygiene, Inc. (Acumen) conducted at the above referenced building in Berkeley, California. The objectives of this investigation were as follows:

- To identify "lead content" of surfaces coatings (i.e. paint) for areas that are currently part of the remodeling scope at the building. This sampling is for construction purposes for compliance with Cal-OSHA lead related construction (8CCR1532.1) and to assist California Department of Toxic Substances Control (DTSC) waste profiling.
- This testing does not meet all purposes of a "lead inspection" as defined by California Department of Public Health (CDPH) regulations pertaining to public or residential buildings (17CCR35001 et seq). Based on the age of the building, surface coatings not tested should be presumed lead-based paint. Per CDPH reporting requirements, a form 8552 is attached as Appendix C.

Mr. Tam Pham, CAC and Mr. Paul M. Spillane, CIH, CDPH accredited inspector assessor, conducted this testing on February 4-5, 2016. This inspection was limited to areas of the building planned for remodeling.

Samples collected during the investigation were submitted to Micro Analytical Laboratories (Emeryville, CA). This laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP) for selected lead test methods. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA). The lead paint samples were analyzed by flame atomic absorption.

Results:

The sample results are presented as Table 1. The laboratory reports are attached as Appendix A and a sample location floor plan, is attached as Appendix B.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Lead-Based Paint (>5,000 parts per million):

- Exterior peach paint on metal window components (Sample COB1505-020516-Pb02): 18,000 parts per million (ppm) lead. Sample collected from peach paint on metal sash at 4th Floor south-west corner conference room.

Lead-Containing Paint (<5,000 ppm lead):

- Interior cream paint on metal window components (Sample COB1505-020516-04A): 180 parts per million (ppm) lead. Sampled at 4th Floor south-west corner conference room.
- Multi-layered (white/green) paints on plaster (perimeter) walls (Sample COB1505-020516-Pb01): 520 parts per million (ppm) lead. Sampled at 4th Floor south-west corner conference room.

Non-Lead-Containing Paint (<detection limit):

- White paint on drywall (Sample COB1505-020416-01Pb): <80 ppm. Sampled at 3rd Floor Katherine's office.
- White paint on drywall (Sample COB1505-020416-01Pb): <71 ppm. Sampled at 3rd Floor west hallway.
- White paint on drywall (Sample COB1505-020416-01Pb): <65 ppm. Sampled at 1st Floor Room 146.
- White paint on drywall (Sample COB1505-020416-01Pb): <74 ppm. Sampled at 1st Floor Room 146.
- White paint on drywall (Sample COB1505-020416-01Pb): <81 ppm. Sampled at 4th Floor east corner office.
- Light Cream paint on drywall (Sample COB1505-020416-01Pb): <80 ppm. Sampled at 4th Floor east hall.

Discussion:

Paints that contain more than 5,000 ppm lead are classified as lead based paint (LBP), as is the case with the exterior peach paint on metal windows and is regulated under several regulations including the California CDPH regulations. The presence of lead-containing paints (on interior plaster walls and window components) also has several consequences pertaining to the Cal-DTSC waste regulations and Cal-OSHA regulations for construction work.

There are specific prohibitions of burning LBP, scraping, sanding or grinding of lead-based paint without a containment or tools fitted with HEPA filters. DTSC regulations require that leaded wastes be properly classified and segregated before disposal.

Cal-OSHA regulations would require a demolition contractor to comply with the requirements of Cal-OSHA's lead in construction standard (8CCR1532.1). According to these regulations, a contractor would need to develop and implement a lead compliance plan, conduct employee exposure assessment to determine appropriate protective measures (that would include the use of respiratory protection unless air monitoring results show it is not needed), provide employee training on the hazards of lead related work, provide adequate hand washing facilities and ensure their use, and possibly provide medical surveillance exams (including blood lead testing). The written compliance plan would essentially acknowledge the

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

presence of lead and would describe procedures to minimize airborne lead exposures (i.e. use dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.). These issues are commonplace since these Cal-OSHA rules have been in effect since 1992 and since the lead containing paints are commonly found.

Because this is a public building, the US EPA requires the contractor be lead-trained under Renovation, Repair and Painting (RRP) rule. This regulation requires containment and clearance protocols. The CDPH also has certain standards pertaining to lead, which should be required by project specification.

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Sincerely,
Acumen Industrial Hygiene, Inc.

Paul M. Spillane, CIH,
CDPH Accredited Lead-Based Paint Inspector/Assessor #3920, Exp. 08/21/16

Table 1: **Summary of Lead Paint Sample Results**

Appendix A: **Laboratory Reports**
Appendix B: **Sample Location Floor plan**
Appendix C: **CDPH Form 8552**

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Appendix A

Laboratory Reports

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

Prepared For:

City of Berkeley
1326 Allston Way
Berkeley, CA 94702

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Table 1

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

February 4 – 5, 2016

Location	Material	Result [1]	Sample No.
3rd Floor – Katherine's Office	White Paint on Drywall	< 80	COB1505-020416-01PB
3rd Floor – West Hallway	Light Cream Paint on Drywall	< 71	COB1505-020416-02PB
1st Floor – Room 146	White Paint on Plaster Wall	< 65	COB1505-020416-03PB
1st Floor – Room 146	White Paint on Drywall	< 74	COB1505-020416-04PB
4th Floor – East Corner Office	White Paint on Drywall	< 81	COB1505-020416-05PB
4th Floor – East Hallway	Light Cream Paint on Drywall	< 80	COB1505-020416-06PB
4th Floor – South Corner Conference Room	White and Green Paint on Plaster Wall	520	COB1505-020516-PB01
4th Floor – South Corner Conference Room	Exterior Peach Paint on Window Frame	18,000	COB1505-020516-PB02
4th Floor – South Corner Conference Room	Interior Gray Paint on Window Sash	180	COB1505-020516-04A

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7000B is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on ASTM E-1645. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm).

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Appendix B

Sample Location Floor Plan

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

Prepared For:

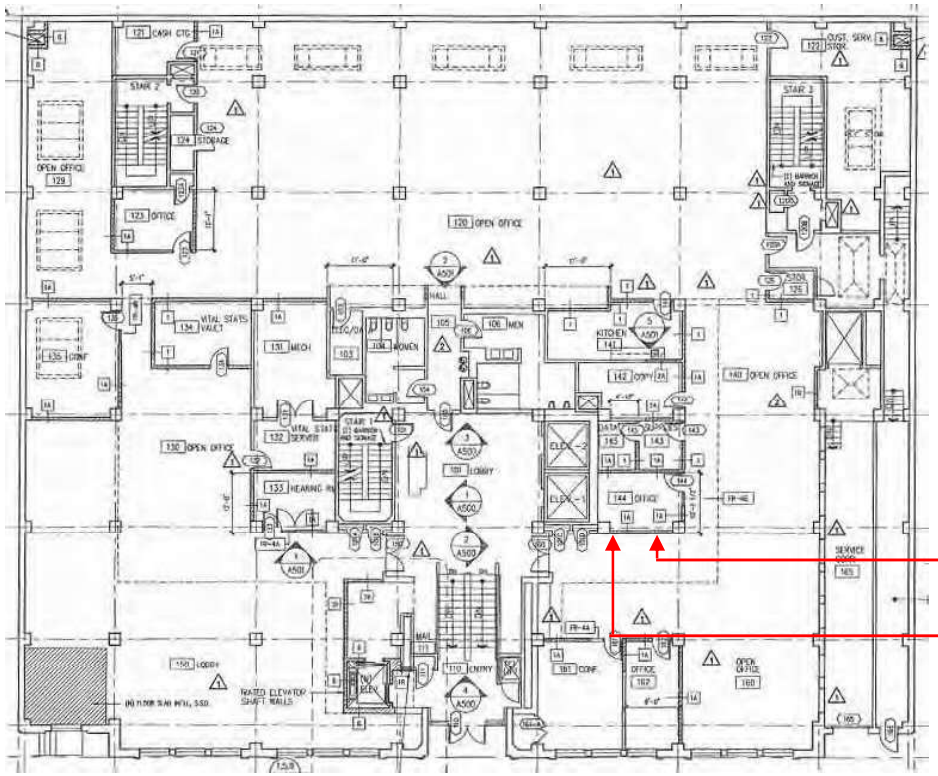
City of Berkeley
1326 Allston Way
Berkeley, CA 94702

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Figure 1

Sampling Locations
1947 Center Street – 1st Floor
Berkeley, CA

February 4 – 5, 2016



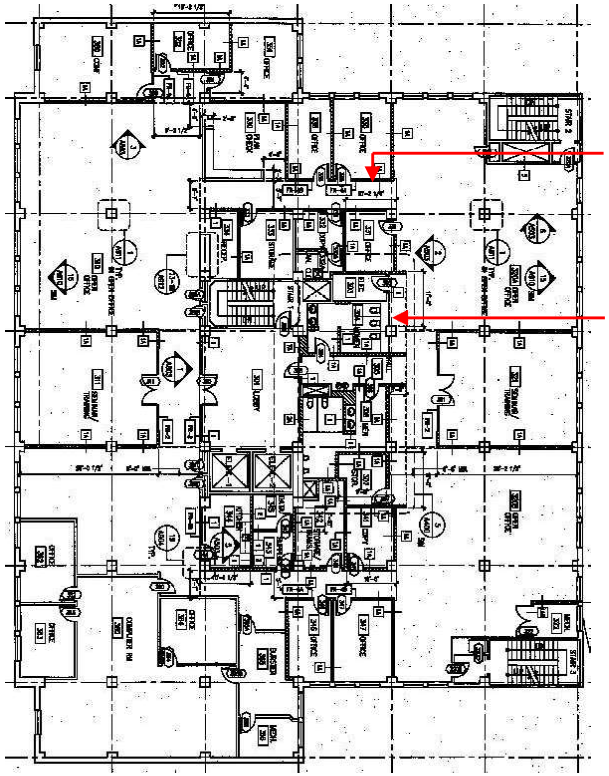
Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing
Blue Lead Sample

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Figure 2

Sampling Locations
1947 Center Street – 3rd Floor
Berkeley, CA

February 4 – 5, 2016



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing
Blue Lead Sample

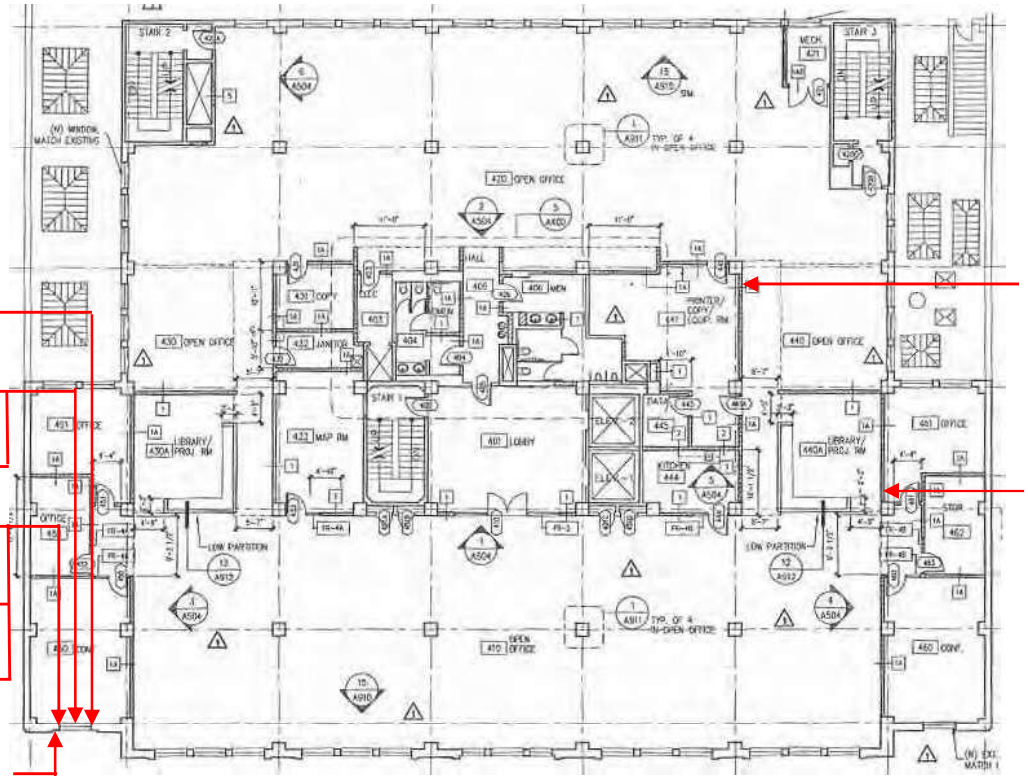
Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Figure 3

Sampling Locations

1947 Center Street – 4th Floor
Berkeley, CA

February 4 – 5, 2016



COB1505-020516-03A
Exterior White Caulking

COB1505-020516-04A
Interior Gray Paint on Window Sash

COB1505-020516-04A
Interior Gray Paint on Window Sash

COB1505-020516-02A
Plaster Wall

COB1505-020516-PB01
White and Green Paint on Plaster Wall

COB1505-020516-01A
Exterior White and Gray Mortar

COB1505-020516-PB02
Exterior Peach Paint on Window Frame

COB1505-020416-06PB
Light Cream Paint on Drywall

COB1505-020416-05PB
White Paint on Drywall

Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing
Blue Lead Sample

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Appendix C

CDPH Report

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

Prepared For:

City of Berkeley
1326 Allston Way
Berkeley, CA 94702

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation 2/4/16 to 2/5/16

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☐ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☑ Other (specify) Limited Bulk Sampling

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1947 Center Street	Berkley	Alameda	94702

Construction date (year) of structure	Type of structure		Children living in structure?	
<1950	☐ Multi-unit building	☐ School or daycare	☐ Yes	☑ No
	☐ Single family dwelling	☑ Other Office Building	☐ Don't Know	

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
City of Berkeley	510.981.6396

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1947 Center Street, 4th Floor	Berkeley	CA	94704

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Paul Spillane	415-242-6060

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1032 Irving Stree #922	San Francisco	CA	94122

CDPH certification number	Signature	Date
I/A, PM #3920		2-9-16

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

August 8, 2022

Uriel Gonzalez, Junior Engineer
Public Works Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

RE: Asbestos Containing Materials Inspection for Carpet Replacement Project
1947 Center Street, 6th Floor (Berkeley, CA)
Acumen Project No.: COB 2231

Dear Uriel:

The purpose of this letter is to report and discuss the findings of an asbestos containing materials (ACM) inspection Acumen Industrial Hygiene, Inc. (Acumen) conducted at the sixth floor of 1947 Center Street in Berkeley, California for the upcoming carpet replacement project. The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air Quality Management District (BAAQMD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).

Mr. Paul M. Spillane, CIH, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on July 14, 2022. This inspection was limited to accessible areas and was focused on the carpet replacement project. Wall cavities, ceiling plenum or other interstitial spaces were not accessed or surveyed.

Summary of Investigation

Where suspect asbestos flooring materials were noted, Acumen collected bulk samples and submitted them with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA).

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The suspect material samples collected were analyzed by polarized light microscopy (PLM). The laboratory reports are shown in Appendix A. This analytical method identifies the type(s) of asbestos present in the sample and its corresponding percent concentration(s). The reliable limit of quantification of this method is 1% asbestos.

Bulk ceramic tile sample was also collected and analyzed for total lead content by Total Threshold Limit Concentration (TTLC) method, U.S. Environmental Protection Agency (EPA) Method SW-846. Lead sample was submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. The lead laboratory results are also shown in Appendix A. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit.

Findings and Discussion

The ACM found during this investigation include the following materials:

- 9x9-inch brown vinyl floor tile contains 12% asbestos (Photo 1). There are approximately 14,000 square feet of this Category I non-friable material present (Samples COB2231-02A and COB2231-02B). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.
- 12x12-inch orange vinyl floor tile contains 6% asbestos (Photo 2). There is an unknown amount of this Category I non-friable material present (Sample COB2231-03A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.
- Mastic under 12x12-inch black/white vinyl floor tile contains 4% asbestos (Photo 3). There are approximately 100 square feet of this Category I non-friable material present (Sample COB2231-05A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

If impacted by the upcoming renovations, these materials must be handled by Cal/OSHA asbestos registered contractor. The contractor must also be licensed as an asbestos abatement contractor by the California State Licensing Board. In some cases, it may be possible to leave the asbestos flooring in place, although, they would need to be removed prior to any impact by renovations.

The Bay Area Air Quality Management District (BAAQMD) requires notification and RACM procedures if mechanical methods are used to remove asbestos flooring (more than 1% asbestos) including the use of mechanical floor buffers. The removal of RACM requires 10-day advance notification to BAAQMD, if more than 100 square feet or 100 linear feet are removed. Even if less than 100 square feet/100 linear feet are removed, the BAAQMD has rules regarding methods of removal. Based on past experience with flooring abatement at 1947 Center Street, the concrete subflooring is porous and susceptible to having mastic solvent seep down into the floor below. The abatement contractor should be aware of this condition and adjust their work method accordingly.

Lead containing ceramic tile do not contain more than 50 ppm of lead so the tile is not considered regulated wastes. Because there is some lead present (12 ppm), Cal/OSHA regulations would apply to the demolition work. The Cal/OSHA lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing lead-containing materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work.

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Recommendations

The findings of this investigation warrant the following actions:

1. Notify potential building maintenance personal, lessees and contractors of the presence of ACMs at the building. Disturbance of ACMs require special training and Cal/OSHA procedures.
2. At a minimum the carpets and tack-strips must be removed by a Cal/OSHA registered and State licensed asbestos contractor and any loose floor tiles must be abated.
3. Third party perimeter air monitoring should be conducted to limit the City's liability when doing this work. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of asbestos and to protect over occupants of the building.
4. Once carpets are removed, asbestos clearance testing is recommended prior to releasing the contractor from this work. If the asbestos floors are not abated, the carpet installer will also be required to have asbestos training for Class IV work on an annual basis. This is a 2-hour awareness class that informs the carpet installers not to remove or damage the asbestos flooring.
5. The presence of asbestos (and presumed leaded paints) should be managed under an Operations and Management (O&M) program. The O&M program should establish written policies and procedures for work practices as required by EPA and California laws. The O&M program should establish policy for notifying employees per Health and Safety Code Section 25915-25919.7. Under the Connolly Bill (Health and Safety Code Section 25915-25919.7) the owner (employer) is required to annually provide in writing to each individual employee, the presence and location of asbestos-containing materials in the building.

Conclusions

This limited investigation discovered asbestos flooring that will require special work practices and waste disposal considerations, if disturbed. This survey was limited to flooring materials and did not include the upgraded restrooms, walls, ceilings, insulation or other suspect materials. Ceramic tile was determined to contain lead, but it is considered construction debris because it is below 50 ppm. Disturbing leaded materials will need to follow lead-construction work practices per Cal/OSHA regulations (8CCR1532.1).

At a minimum the carpet should be removed by a Cal/OSHA asbestos registered contractor working under a third-party specification. This work should be monitored by a Certified Asbestos Consultant and clearance testing should be conducted at the end of the work. Suitable project design could allow certain ACMs to remain in place, although they may need to be removed if damaged.

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Sincerely,
Acumen Industrial Hygiene, Inc.

Paul M. Spillane, CIH
Certified Asbestos Consultant: 10-4630 (Exp 6-16-23)
CDPH Lead Accredited #LRC-00004053
Principal Industrial Hygienist

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM/LBP/PCBs, mold or other hazardous materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning and for demolition purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

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Table 1

Asbestos Containing Material
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
6th Floor - 608	9x9" Brown Vinyl Floor Tile	Vinyl Floor Tile: 12% CH Black Mastic: ND	Cat I NF	14,000 SF	COB2231-02A
6th Floor - 625	9x9" Brown Vinyl Floor Tile	Vinyl Floor Tile: 6% CH Black Mastic: ND Yellow Mastic: ND	Cat I NF	See Above	COB2231-02B
6th Floor - 632	12x12" Orange Vinyl Floor Tile	Vinyl Floor Tile: 6% CH Black Mastic: ND	Cat I NF	Unknown TBD	COB2231-03A
6th Floor - Closet	12x12" White Vinyl Floor Tile	Vinyl Floor Tile: ND Black/Yellow Mastic: 4% CH	Cat I NF	100 SF	COB2231-05A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). Samples that are marked Point Count were analyzed by EPA-600/R93-116 (1993) method as determined by PLM 400 Point Count method and are reported as percentage (%) asbestos. CH = Chrysotile asbestos; AC = Actinolite asbestos; TR = Tremolite asbestos; AM = Amosite asbestos; CR = Crocidolite; PP = sample was not analyzed because of Prior Positive; Trace = levels of asbestos is less than 1%; ND = no asbestos detected; and Assumed = material to contain asbestos unless proven otherwise.
2. BAAQMD indicates classification into friable as Regulated Asbestos Containing Material (RACM) or Category I (Cat I) or Category II (Cat II) Non-Friable. Depending on methods of removal Category I or II non-friable ACMs could become rendered into friable/RACM. BAAQMD classifications are non-applicable (N/A) for materials with results that are ND for asbestos.
3. EQ means estimated quantity either in square feet (SF) linear feet (LF), or each unit (EA). Estimated quantities are non-applicable (N/A) for materials with results that are ND for asbestos. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. TBD = To Be Determined.

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Table 2

Non-Asbestos Containing Materials
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Results[1]	Sample No.
6th Floor - Lobby	6x6" Ceramic Floor Tile	Ceramic Floor Tile: ND Adhesive: ND	COB2231-01A
6th Floor - Lobby	6x6" Ceramic Floor Tile	Ceramic Floor Tile: ND	COB2231-01B
6th Floor - Breakroom	12x12" Black Vinyl Floor Tile	Vinyl Floor Tile: ND Yellow Adhesive: ND	COB2231-04A

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

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Table 3

Summary of Lead Material Sample Results
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Result[1]	EQ[2]	Sample No.
6th Floor - Lobby	6x6" Maroon Ceramic Floor Tile	12	N/A	COB2231-PB01

Footnote

1. Samples are analyzed by Total Threshold Limit Concentration (TTLC) in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007). Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. EQ means estimated quantity either in square feet (SF). Ceramic tile contains more than 1,000 ppm lead would be classified as California hazardous wastes. If ceramic tile or other material contains greater than 50 ppm lead but less than 1,000 ppm lead, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Removal is not required.

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Appendix A

Laboratory Reports

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In **293514**
Total Samples 7
Date Sampled 07/14/2022
Date Received 07/14/2022
Date Analyzed 07/14/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2231-01A Micro #: 293514-01 Analyst: GDS 6 X 6 CFT / 6TH FLOOR / LOBBY	CFT: ND ADHESIVE: ND	NFM: ROCK FRAGMENTS MISCELLANEOUS PARTICLES
Client #: COB2231-01B Micro #: 293514-02 Analyst: GDS 6 X 6 CFT / 6TH FLOOR / LOBBY	CFT: ND	NFM: ROCK FRAGMENTS MISCELLANEOUS PARTICLES
Client #: COB2231-02A Micro #: 293514-03 Analyst: GDS 9 X 9 " BROWN VFT / 6TH FLOOR / 608	VFT: 12% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND	1 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2231-02B Micro #: 293514-04 Analyst: GDS 9 X 9 " BROWN VFT / 6TH FLOOR / 625	VFT: 6% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND MASTIC (YELLOW): ND	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2231-03A Micro #: 293514-05 Analyst: GDS 12 X 12 " ORANGE VFT / 6TH FLOOR / 632	VFT: 6% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: Mark Olivares 7/16/2022
For Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

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MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In	**293514**
Total Samples	7
Date Sampled	07/14/2022
Date Received	07/14/2022
Date Analyzed	07/14/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: **COB2231-04A** Micro #: 293514-06 Analyst: GDS MO **12 X 12 " BLACK VFT / 6TH FLOOR / BREAK ROOM**	**VFT: ND** **ADHESIVE (YELLOW): ND**	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **COB2231-05A** Micro #: 293514-07 Analyst: GDS **12 X 12 " WHITE VFT / 6TH FLOOR / CLOSET**	**VFT: ND** **MASTIC (BLACK/YELLOW): 4% CHRYSOTILE ASBESTOS**	3 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: _____ 7/16/2022
For Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

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(PLM) 293514

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BULK CHAIN OF CUSTODY FORM

Project No. COB 2231

Job Site: 1947 Center Berkeley CA

Location:

Laboratory: MAL

Turnaround Time: (Normal) / 24 Hour / Rush

Sample Date: 7/14/22

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
1	COB 2231 01A	6x6 CFT / 6TH FLR / LOBBY	PLM ASBESTOS
2	01B	/ / / / /	
3	02A	9x9" BROWN VFT / / 608	
4	02B	/ / / / / 625	
5	03A	12x12" ORANGE VFT / / 632	
6	04A	12x12" BLACK VFT / / BREAK ROOM	
7	05A	12x12" WHITE VFT / / CLOSET	
	COB 2231 PB01	6x6" CFT (MAROON) / 6TH / LOBBY	LEAD TTLC

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 7/14/22 11:21 AM	Date received: 7/14/22 @ 1124 AM

Sent via Federal Express Air Bill:

Hand delivered

Tab / No Tab
WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

EPA SW-846 LEAD-TTLC

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:

PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In 293515
Total Samples 1
Date Sampled 07/14/2022
Date Received 07/14/2022
Date Analyzed 07/14/2022

Sample ID	Lead Concentration, ppm	RDL, ppm	Comments
Client COB2231-PB01 Micro 293515-01 6 X 6 " CFT (MAROON) / 6TH / LOBBY	12	9.8	

Technical Supervisor: Long T. Nguyen, Chemistry Supervisor 7/14/2022 Date Reported

Analyst: RN

AIHA-LAP LLC ELLAP Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAA) using SOP 23-Soil (in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007)). NOTE: Water samples are analyzed by FLAA in accordance with Method 3111B (Standard Methods for the Examination of Water and Wastewater, 18th edition). Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report must not be reproduced except in full without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION. L = liters. RDL = Report Detection Limit. Note: mg / Kg is the same as ppm for solids, and mg/L is the same as ppm for water.

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(TLC) 293515

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BULK CHAIN OF CUSTODY FORM

Project No. COB 2231

Job Site: 1947 Center Berkeley CA

Location:

Laboratory: MAL

Turnaround Time: (Normal) / 24 Hour / Rush

Sample Date: 7/14/22

Sampler: Paul M. Spillane, CIH, CAC

Sample No.	Description/ Location	Analysis
COB 2231 01A	6X6 CFT / 6TH FLR / LOBBY	PCM ASBESTOS
01B	/ / / / /	
02A	9X9" BROWN VFT / / 608	
02B	/ / / / / 625	
03A	12X12" ORANGE VFT / / 632	
04A	12X12" BLACK VFT / / BREAK ROOM	
05A	12X12" WHITE VFT / / CLOSET	
COB 2231 PB01	6X6" CFT (MAROON) / 6TH / LOBBY	LEAD TTLC

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 7/14/22 11 21 Am	Date received: 7/14/22 @ 1124 Am

Sent via Federal Express Air Bill:

Hand delivered

Page 1 of 1

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Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Appendix B

Sample Location Floor Plans

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022

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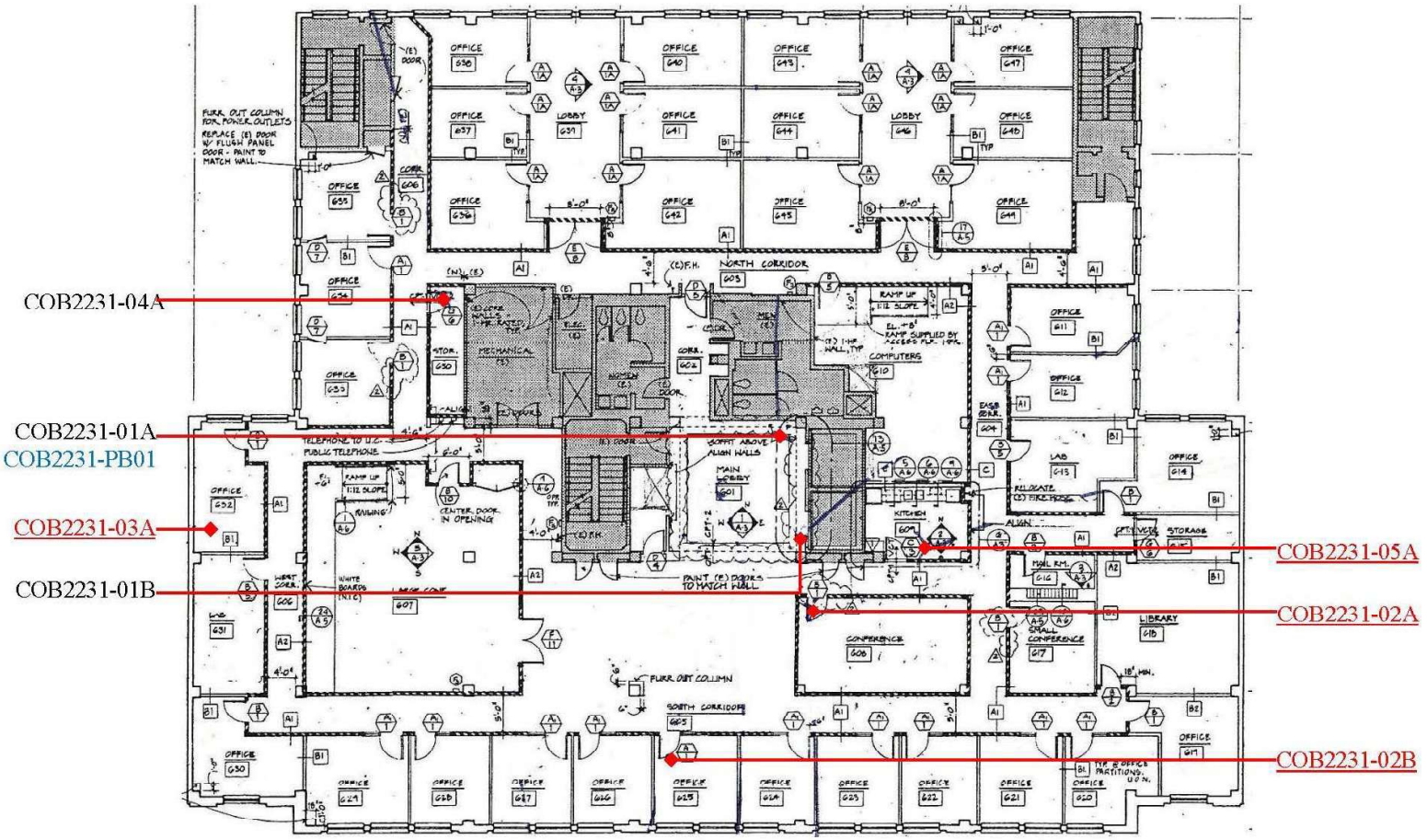

Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
* Floor plan is not to scale.

A

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SAN FRANCISCO CA 94122
415 242 6060
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Project
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2231	7/14/2022

Location
-

Level
6th Floor

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Appendix C

Photographs

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 1

9x9-inch brown vinyl floor tile (12% asbestos). There are approximately 14,000 square feet of this Category I non-friable material present (Sample COB 2231-02A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

Photo 2

12x12-inch orange vinyl floor tile (6% asbestos, Photo 2). There is an unknown amount of this Category I non-friable material present (Sample COB 2231-03A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

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Photo 3

Mastic under 12x12-inch white vinyl floor tile (4% asbestos). There are approximately 100 square feet of this Category I non-friable material present (Sample COB 2231-05A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

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August 14, 2024

Uriel Gonzalez, Junior Engineer
Public Works Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

RE: Limited Hazardous Materials Testing for Window Replacement Project
1947 Center Street, 6th Floor
Berkeley, CA
Acumen Project No.: COB 2231

Dear Uriel:

The purpose of this letter is to report and discuss the findings of an asbestos containing materials (ACM) inspection Acumen Industrial Hygiene, Inc. (Acumen) conducted at 1947 Center Street, 6th Floor in Berkeley, California for the upcoming window replacement project. The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air Quality Management District (BAAQMD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).
- Based on the age of the buildings (constructed or remodeled between 1950 and 1981), Acumen conducted representative sampling of "PCB priority building materials" consistent with the methods outlined in Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition required by the Bay Area Stormwater Management Agencies Association (BASMAA, 2018). We included sampling for PCBs in "priority" building materials such as window putty.

Mr. Tam Pham, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on July 2, 2024. This inspection was limited to accessible areas on the 6th floor and was focused on the window replacement project (Photo 1). Wall cavities or other interstitial spaces were not accessed or surveyed.

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Summary of Investigation

Where suspect asbestos materials were noted, Acumen collected bulk samples and submitted them with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA).

The suspect material samples collected were analyzed by polarized light microscopy (PLM). The laboratory reports are shown in Appendix A. This analytical method identifies the type(s) of asbestos present in the sample and its corresponding percentage concentration(s). The reliable limit of quantification of this method is 1% asbestos.

We also collected discrete paint samples and window putty bulk sample for lead analysis. The discrete paint samples were analyzed by flame atomic absorption (FLAA) spectrometry using Method 7420. The window putty bulk sample was analyzed for total lead content by Total Threshold Limit Concentration (TTLC) method, U.S. EPA Method SW-846. Lead sample was submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. The lead laboratory results are also shown in Appendix A. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit.

Findings and Discussion

The sampling results for suspect materials that did not contain detectable amounts of asbestos are summarized on Table 1. The laboratory analytical results are included in Appendix A. Sample locations are illustrated on the Sample Location Maps provided in Appendix B. The diagrams indicate where the samples were taken, but locations of these materials are not limited to the areas sampled. Representative photographs are provided in Appendix C

Non-Asbestos Containing Materials

There were no ACMs discovered during this limited inspection. The following materials were sampled and determined not to contain asbestos:

- Window putty
- Gray paint on window frame

Lead-Containing Paints and Lead-Based Material

The result of this limited inspection determined that lead paints and lead window putty is present. Intact lead paints do not require paint-stabilization. However, deteriorated (loose and flaking) lead paints must be stabilized prior to demolition or renovation. Where inspected, we observed deteriorated paints at the stairwells. As shown on Table 2 and Table 3, we representatively sampled paints and material to comply with Cal/OSHA and DTSC waste disposal regulations during construction.

Paints that contain more than 5,000 ppm lead are considered “lead-based paint” and if deteriorated are considered a “lead-hazard” by the CDPH. Paint chip wastes or material that contains more than 1,000 ppm lead would be classified as California hazardous wastes. Deteriorated paint wastes or materials that contain more than 50 ppm lead, but less than 1,000 ppm lead would need to be re-analyzed by the Soluble Threshold Limit Concentration (STLC) to determine soluble lead content and by the US EPA Total Concentration for Leachable Pollutants (TCLP) test to determine whether the paint or material is either a California or a Federal hazardous waste. If the soluble test(s) exceed 5.0 mg/L, then the waste would be

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

characterized as “hazardous waste” (either California, federal or both). If ceramic tile or other bulk materials contains greater than 50 ppm, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation.

We found lead-containing paints and lead-based material based on bulk samples collected.

- Exterior cream paint on window frame contains 2,000 ppm lead. This paint is intact and does not require paint-stabilization.
- Gray and green paint on window frame contains 1,900 ppm lead (Photo 2). This paint is deteriorated and does require paint-stabilization. We estimate about 75 square feet of flaking lead-containing paint.
- Exterior cream paint on window sill contains 5,100 ppm lead. This paint is intact and does not require paint-stabilization.
- Window putty contains up to 7,400 ppm lead (Photo 3). We estimate about 55 windows of this lead-based material will need to be removed prior to demolition or renovation.

Construction work that disturbs lead-based or lead-containing materials (including demolition) will need to be conducted in accordance with Cal/OSHA's lead in construction regulations (8CCR1532.l). These regulations apply to paints and materials that contains any detectable amounts of lead. In theory, this should not pose a significant problem as this regulation has been in effect since 1992. Lead containing materials may require separate disposal if they contain more than 50 ppm lead. This rule does not apply for intact paint.

Cal/OSHA notification 24 hours in advance of removal work would be required because the material (window putty) tested contain more than 0.5% lead or 5,000 ppm lead. Nevertheless Cal/OSHA's lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing leaded materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, if the paint is disturbed (e.g., sanding or chipping), contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work. Note that lead related work in public buildings that exceeds Cal/OSHA's permissible exposure limit requires that the training be accredited lead worker training under the California Department of Public Health (CDPH).

PCB Findings and Discussion

The Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA) defines PCB-containing materials as materials containing concentrations of greater than 500 ppm PCB. PCB-contaminated materials are defined as materials containing a concentration of greater than 50 ppm PCB, but less than 500 ppm PCB. Non-PCB materials are defined as containing a concentration of less than 50 ppm PCB.

An assessment was conducted to test for the presence of building materials that may contain PCB. Acumen sampled priority” building materials including window putty. Based on bulk samples collected at the stairwells, we did not find PCB-containing materials. Window putty samples do not contain a detectable concentration of PCBs. PCB bulk sample results can be found in Table 4.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Recommendations

The findings of this investigation warrant the following actions:

1. Notify potential demolition or renovation contractors of the presence of deteriorated lead-containing paints and lead-based paint and window putty. Disturbance of the lead requires compliance with Cal/OSHA's lead in construction regulation. The paint waste is considered hazardous waste based on the high lead-content.
2. If additional suspect materials were discovered during demolition or renovations, these materials should be sampled to confirm that they do not contain asbestos or lead prior to their removal.
3. Prior to submitting bids to perform abatement work, abatement contractors should field verify all the estimated quantity of ACM materials and other hazardous materials stated in this report.
4. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of lead and to protect over occupants of the building.
5. The presence of leaded paints and window putty should be managed under an Operations and Management (O&M) program. The O&M program should establish written policies and procedures for work practices as required by EPA and California laws. The O&M program should establish policy for notifying employees per Health and Safety Code Section 25915-25919.7. Under the Connolly Bill (Health and Safety Code Section 25915-25919.7) the owner (employer) is required to annually provide in writing to each individual employee, the presence and location of asbestos-containing materials in the building.

Conclusions

This limited investigation did not discover asbestos containing material. However, lead-based material (window putty) requires to be removed. Deteriorated lead-containing paints are also present, which should be stabilized prior to demolition or renovation. Disturbing leaded materials will need to follow lead-construction work practices per Cal/OSHA regulations (8CCR1532.1).

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Prepared by:

Tam Pham, CAC (August 14, 2024)
Certified Asbestos Consultant #13-5033
CDPH Lead Accredited #LRC-00004523

Reviewed by:

Paul M. Spillane, CIH, CAC (August 14, 2024)
Certified Asbestos Consultant #10-4630
CDPH Lead Accredited #LRC-00004523

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM/LBP/PCBs, mold or other hazardous materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning and for demolition purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Table 1

Asbestos Containing Materials
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Results[1]	Sample No.
625	Window Putty	Putty: ND	COB-2231-01A
By 643	Window Putty	Putty: ND	COB-2231-01B
634	Window Putty	Putty: ND	COB-2231-01C
629	Window Putty	Putty: ND	COB-2231-01D
621	Window Putty	Putty: ND	COB-2231-01E
621	Gray Paint on Window Frame	Putty: ND	COB-2231-02A
By 638	Gray Paint on Window Frame	Putty: ND	COB-2231-02B

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Table 2

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Result[1]	Condition[2]	EQ[3]	Sample No.
By 643	Exterior Cream Paint on Window Frame	2,000	Intact	N/A	COB-2231-PB04
621	Gray and Green Paint on Window Frame	1,900	Deteriorated	75 SF	COB-2231-PB06

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7420 is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on U.S. EPA SW-846, 3rd edition. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. Intact paint requires no lead-stabilization; deteriorated paint with greater than 50 ppm lead must be stabilized prior to demolition or renovation.
3. EQ means estimated quantity in square feet (SF). Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Lead-stabilization is not required.

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Table 3

Summary of Lead TTLC Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Result[1]	EQ[2]	Sample No.
625	Window Putty	1,400	55 Windows	COB-2231-PB01
625	Exterior Cream Paint on Window Sill	5,100	N/A	COB-2231-PB02
By 643	Window Putty	7,400	Included in PB01	COB-2231-PB03
634	Window Putty	28	Included in PB01	COB-2231-PB05

Footnote

1. Samples are analyzed by Total Threshold Limit Concentration (TTLC) in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007). Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. EQ means estimated quantity either in square feet (SF). Ceramic tile contains more than 1,000 ppm lead would be classified as California hazardous wastes. If ceramic tile or other material contains greater than 50 ppm lead but less than 1,000 ppm lead, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Removal is not required.

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Table 4

Summary of PCB Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Results[1]	Sample No.
625	Window Putty	ND	COB2231-PCB01
By 643	Window Putty	ND	COB2231-PCB02
634	Window Putty	ND	COB2231-PCB03

Footnote

1. Samples were analyzed by Gas Chromatography. U.S. EPA Method 8082A is used to determine the concentrations of polychlorinated biphenyls (PCBs) as Aroclors or as individual PCB congeners in extracts from solid, tissue, and aqueous matrices, using open-tubular, capillary columns with electron capture detectors (ECD) or electrolytic conductivity detectors (ELCD). ND indicates that PCB was not detected.

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ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

August 2024

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**316946**
Total Samples	7
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB-2231-01A Micro #: 316946-01 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01B Micro #: 316946-02 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01C Micro #: 316946-03 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01D Micro #: 316946-04 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01E Micro #: 316946-05 Analyst: BK BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES

Technical Supervisor: _____ 7/3/2024
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**316946**
Total Samples	7
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB-2231-02A Micro #: 316946-06 Analyst: BK GRAY PAINT ON WINDOW FRAME	ND	NFM: OPAQUES
Client #: COB-2231-002B Micro #: 316946-07 Analyst: BK GRAY PAINT ON WINDOW FRAME	ND	NFM: OPAQUES

Technical Supervisor: Baojia Ke, Ph.D. 7/3/2024 Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, bu: are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

316946 (PLM)

Project No. COB 2231

Location: 1947 Center Street, 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: [X] Normal [ ] 24 Hour [ ] Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB 2231-01A	6	625	window putty	PLM Asbestos
2	01B		BY 643		
3	01C		634		
4	01D		629		
5	01E		621		
6	02A		621	gray paint on window frame	
7	02B		BY 638		
	Pb01		625	window putty	TTLC LEAD
	Pb02		625	EXT. cream paint on window sil	
	Pb03		BY 643	window putty	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: [X] Hand Delivered [ ] Federal Express (Air Bill #_____) [ ] Other: _____

 [ ] NT [ ] WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

LEAD IN PAINT - FLAME AAS (SW846)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In 316948
Total Samples 2
Date Sampled 07/02/2024
Date Received 07/02/2024
Date Analyzed 07/03/2024

Sample ID	Lead Concentration Weight Percent	mg/kg (ppm)	RDL
Client: COB-2231-PB04 Lab: 316948-01 EXT. CREAM PAINT ON WINDOW FRAME	0.20 %	2000	0.0080 % 80 mg/kg
Client: COB-2231-PB06 Lab: 316948-02 GRAY + GREEN PAINT ON WINDOW FRAME	0.19 %	1900	0.0081 % 81 mg/kg

Technical Supervisor: _____ 7/3/2024 Analyst: RN
Long T. Nguyen, Chemistry Supervisor Date Reported

AIHA-LAP, LLC Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Paint. This SOP is based on U.S. EPA SW-846 Method 7420 for instrumental analysis, and on ASTM E-1645-21 for nitric acid and hydrogen peroxide digestion Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. If the amount of sample available for analysis is lower than advisable for this method, detection limits and uncertainty will be higher. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. N/A = Not Applicable. RDL = Report Detection Limit.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

A

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM 316948 (paint)

Project No. COB 2231

Location: <SAME>
Address:
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB2231-P604	6	By 643	EXT. cream paint on window Frame	~~FLAA~~ ~~LEAD~~
	P605	|	634	window putty	TTCL ~~LEAD~~
2	P606	|	621	gray + green paint on window frame	~~FLAA~~ ~~LEAD~~

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By:	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

 ☐ NT ☐ WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

MICRO ANALYTICAL LABORATORIES, INC.

EPA SW-846 LEAD-TTLC

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:

PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	316947
Total Samples	4
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

Sample ID	Lead Concentration, ppm	RDL, ppm	Comments
Client COB-2231-PB01 Micro 316947-01 WINDOW PUTTY	1400	250	
Client COB-2231-PB02 Micro 316947-02 EXT. CREAM PAINT ON WIDOW SILL	5100	500	
Client COB-2231-PB03 Micro 316947-03 WINDOW PUTTY	7400	500	
Client COB-2231-PB05 Micro 316947-04 WINDOW PUTTY	28	10	

Technical Supervisor: _____ 7/3/2024 Analyst: RN
Long T. Nguyen, Chemistry Supervisor — Date Reported

Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Soil (in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007)). NOTE: Water samples are analyzed by FLAA in accordance with Method 3111B (Standard Methods for the Examination of Water and Wastewater, 18th edition). Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report must not be reproduced except in full without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION. L = liters. RDL = Report Detection Limit. Note: mg / Kg is the same as ppm for solids, and mg/L is the same as ppm for water.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6005
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

316947

(HIC)

Project No. COB 2231

Location: 1947 Center Street, 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: [X] Normal [ ] 24 Hour [ ] Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
	COB 2231-01A	6	625	window putty	PLM Asbestos
	01B		By 643		
	01C		634		
	01D		629		
	01E		621		
	02A		621	gray paint on window frame	
	02B		By 638		
1	Pb01		625	window putty	TTLC LEAD
2	Pb02		625	EXT. cream paint on window sil	
3	Pb03		By 643	window putty	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: [X] Hand Delivered [ ] Federal Express (Air Bill #_____) [ ] Other: _____

[ ] NT [ ] WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2218
TEL 415 242 5060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

316947 (HIC)

Project No. COB 2231

Location: <SAME>
Address:
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

Sample No.	Floor	Location	Description	Method
COB2231-P604	6	By 643	EXT. cream paint on window Frame	PLM LEAD
P605	1	634	window putty	TTCL LEAD
P606	1	621	gray + green paint on window frame	PLM LEAD

4

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

☐ NT ☐ WTE

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2407312

Report Created for: Acumen Industrial Hygiene, Inc.

1032 Irving Street, #922
San Francisco, CA 94122

Project Contact: Results
Project P.O.:
Project: COB 2231; COB 2231

Project Location: 1947 Center Street - 6th Floor Berkeley, CA
Project Received: 07/03/2024

Analytical Report reviewed & approved for release on 07/11/2024 by:

Jena Alfaro
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Acumen Industrial Hygiene, Inc. **WorkOrder:** 2407312

Project: COB 2231; COB 2231

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CCV	Continuing Calibration Verification.
CCV REC (%)	% recovery of Continuing Calibration Verification.
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LCS2	Second LCS for the batch. Spike level is lower than that for the first LCS; applicable to method 1633.
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit [1]
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit [2]
RPD	Relative Percent Difference
RRT	Relative Retention Time
RSD	Relative Standard Deviation
SNR	Surrogate is diluted out of the calibration range
SPK Val	Spike Value

[1] MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016. Values are based upon our default extraction volume/amount and are subject to change.

[2] RL is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.) Values are based upon our default extraction volume/amount and are subject to change.

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Glossary of Terms & Qualifier Definitions

Client: Acumen Industrial Hygiene, Inc. **WorkOrder:** 2407312

Project: COB 2231; COB 2231

SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TNTC	"Too Numerous to Count;" greater than 250 colonies observed on the plate.
TZA	TimeZone Net Adjustment for sample collected outside of MAI's Coordinated Universal Time (UTC). (Adjustment for Daylight Saving is not accounted.)
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	Sample diluted due to high organic content interfering with quantitative/or qualitative analysis.

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Analytical Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Received:	07/03/2024 15:30	**Extraction Method:**	SW3550B/3630C
Date Prepared:	07/05/2024	**Analytical Method:**	SW8082A
Project:	COB 2231; COB 2231	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors w/ Column Style Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB01	2407312-001A	Caulk	07/02/2024	GC23 07092417.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 12:27
Aroclor1221	ND	10	20	07/09/2024 12:27
Aroclor1232	ND	10	20	07/09/2024 12:27
Aroclor1242	ND	10	20	07/09/2024 12:27
Aroclor1248	ND	10	20	07/09/2024 12:27
Aroclor1254	ND	10	20	07/09/2024 12:27
Aroclor1260	ND	10	20	07/09/2024 12:27
PCBs, total	ND	10	20	07/09/2024 12:27

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	85	70-130	07/09/2024 12:27

Analyst(s): CN Analytical Comments: a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB02	2407312-002A	Caulk	07/02/2024	GC23 07092424.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 14:15
Aroclor1221	ND	10	20	07/09/2024 14:15
Aroclor1232	ND	10	20	07/09/2024 14:15
Aroclor1242	ND	10	20	07/09/2024 14:15
Aroclor1248	ND	10	20	07/09/2024 14:15
Aroclor1254	ND	10	20	07/09/2024 14:15
Aroclor1260	ND	10	20	07/09/2024 14:15
PCBs, total	ND	10	20	07/09/2024 14:15

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	88	70-130	07/09/2024 14:15

Analyst(s): CN Analytical Comments: a3

(Cont.)

CA ELAP 1644

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Analytical Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Received:	07/03/2024 15:30	**Extraction Method:**	SW3550B/3630C
Date Prepared:	07/05/2024	**Analytical Method:**	SW8082A
Project:	COB 2231; COB 2231	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors w/ Column Style Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB03	2407312-003A	Caulk	07/02/2024	GC23 07092425.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 14:31
Aroclor1221	ND	10	20	07/09/2024 14:31
Aroclor1232	ND	10	20	07/09/2024 14:31
Aroclor1242	ND	10	20	07/09/2024 14:31
Aroclor1248	ND	10	20	07/09/2024 14:31
Aroclor1254	ND	10	20	07/09/2024 14:31
Aroclor1260	ND	10	20	07/09/2024 14:31
PCBs, total	ND	10	20	07/09/2024 14:31

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	105	70-130	07/09/2024 14:31

Analyst(s): CN

Analytical Comments: a3

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

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Quality Control Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Prepared:	07/05/2024	**BatchID:**	297087
Date Analyzed:	07/09/2024	**Extraction Method:**	SW3550B/3630C
Instrument:	GC23	**Analytical Method:**	SW8082A
Matrix:	Bulk Material	**Unit:**	mg/kg
Project:	COB 2231; COB 2231	**Sample ID:**	MB/LCS/LCSD-297087

QC Summary Report for SW8082A w/ Column Clean-up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.050	0.050	-	-	-
Aroclor1221	ND	0.050	0.050	-	-	-
Aroclor1232	ND	0.050	0.050	-	-	-
Aroclor1242	ND	0.050	0.050	-	-	-
Aroclor1248	ND	0.050	0.050	-	-	-
Aroclor1254	ND	0.050	0.050	-	-	-
Aroclor1260	ND	0.050	0.050	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.052			0.05	103	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.13	0.13	0.15	88	90	70-130	1.66	20
Aroclor1260	0.13	0.12	0.15	86	82	70-130	5.12	20
Surrogate Recovery								
Decachlorobiphenyl	0.054	0.048	0.050	108	96	70-130	11.6	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2407312 **ClientCode: ACUM**

☐ WaterTrax ☐ CLIP ☐ EDF ☒ EQuIS ☒ Dry-Weight ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☒ Detection Summary ☐ Excel

Report to:
Results
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122
415-242-6060 FAX: 415-242-6051

Email: lab@acumen-ih.com
cc/3rd Party:
PO:
Project: COB 2231; COB 2231

Bill to:
Accounts Payable
Acumen Industrial Hygiene, Inc.
1032 Iriving Street, #922
San Francisco, CA 94142-3570
irene@acumen-ih.com

Requested TAT: **5 days;**

Date Received: **07/03/2024**
Date Logged: **07/05/2024**

Lab ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2407312-001	COB2231 PCB01	Caulk	7/2/2024 00:00	☐	A	A										
2407312-002	COB2231 PCB02	Caulk	7/2/2024 00:00	☐	A	A										
2407312-003	COB2231 PCB03	Caulk	7/2/2024 00:00	☐	A	A										

Test Legend:

1	8082_PCB_SG_Caulk	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Gemma Gomez

Comments:

NOTE: Soil samples are discarded 60 days after receipt unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ACUMEN INDUSTRIAL HYGIENE, INC. **Project:** COB 2231; COB 2231 **Work Order:** 2407312

Client Contact: Results **QC Level:** LEVEL 2

Contact's Email: lab@acumen-ih.com **Comments** **Date Logged:** 7/5/2024

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

LabID	ClientSampID	Matrix	Test Name	Cont./ Comp.	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	COB2231 PCB01	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐
002A	COB2231 PCB02	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐
003A	COB2231 PCB03	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐

NOTES: *** STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**

- ISM prep requires 5 to 10 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 6 to 11 days from sample submission). Due date listed on WO summary will not accurately reflect the time needed for sample preparation.

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

U = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.**

Cont./Comp. = Containers /Composites

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

2407312

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2231

Location: 1947 Center Street - 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: McCampbell Analytical, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

Sample No.	Floor	Location	Description	Method
COB2231 PCB01	6	625	window putty	PCB EPA 8082
PCB02		By 643		
PCB03		634		

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By:	Received By: 7/3/24 1315
Date Submitted: 7/2/2024	Date Received: 7/3/24 1315 ~~7/3/24 15:15~~

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

7/3/24 15:30

7/3/24 1530

Rev 08/01

Page 1 of 1

☐ NT ☐ WTE

2.1 W

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Acumen Industrial Hygiene, Inc.	Date and Time Received:	7/3/2024 15:30
Project:	COB 2231; COB 2231	Date Logged:	7/5/2024
		Received by:	Gemma Gomez
WorkOrder №:	2407312 Matrix: Caulk	Logged by:	Gemma Gomez
Carrier:	Benjamin Yslas (MAI Courier)		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Custody seals intact on sample bottles?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 2.1°C				NA	☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2)?	Yes	☐	No	☐	NA	☑

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes	☐	No	☐	NA	☑

Comments:

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix B

Sample Location Floor Plans

1947 Center Street
Berkeley, CA

August 2024

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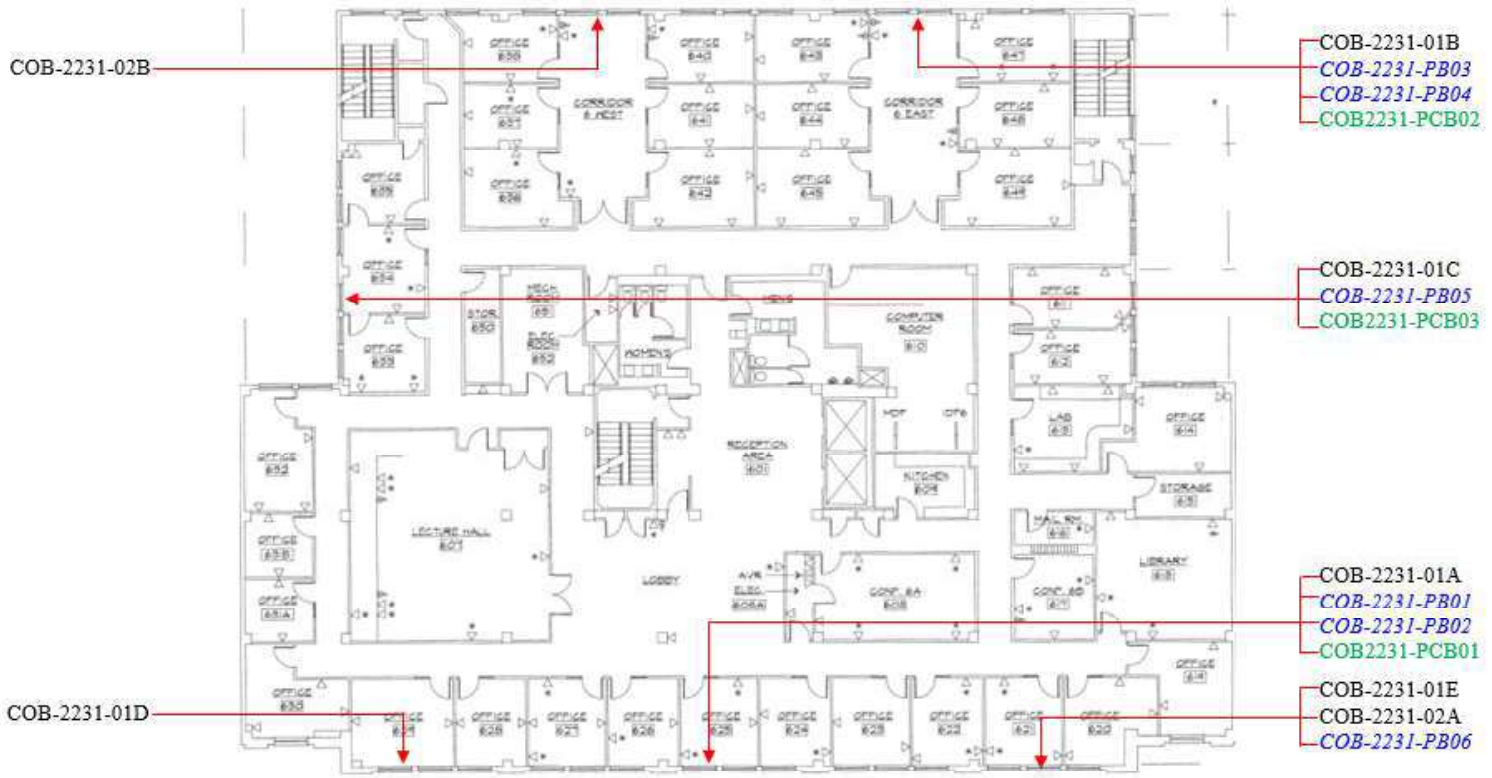

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922
SAN FRANCISCO CA 94122
415 242 6060
WWW.ACUMEN-IH.COM

Project
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2231	07/02/2024

Location
-

Level
Sixth Floor

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix C

Photographs

1947 Center Street
Berkeley, CA

August 2024

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Photo 1

1947 Center Street, Berkeley.

Photo 2

Gray and green paint on window frame contains 1,900 ppm lead.

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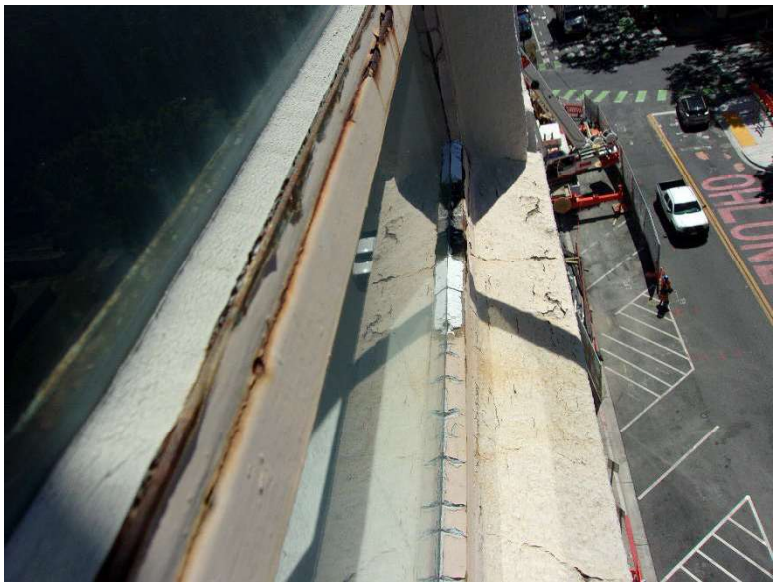

Photo 3

Window putty contains up to 7,400 ppm lead.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Permit Application Approved

Permit Service Center
Building & Safety Division
Planning and Development Department

Application #: B2025-04586 February 27, 2026

Project Address: 1947 Center St

Dear Project Applicant,

The City of Berkeley has completed review of the construction documents submitted under the building permit application number specified above. This permit is approved with conditions, and will be issued upon payment of outstanding fees, and completion of conditions of approval documentation listed below.

Conditions of approval for permit issuance:

1. **The completed and signed Permit Declarations form is required for permit issuance.** *Select ONE of the options below:*
   a) ***Property Owners:*** *If the property owner completes and signs the permit declarations form, they must also provide a completed Owner Builder Verification form, with notarization or a copy of the owner's ID for verification purposes.*

   If the property owner is an LLC, Articles of Organization listing registered agent(s) must be submitted for verification of individuals signing on behalf of the LLC.

   b) ***Contractors:*** *Must hold a current City of Berkeley business license. For information about business license application and renewals, visit https://berkeleyca.gov/doing-business/operating-berkeley/business-licenses*

   c) ***Owner's Agent:*** *If the owner's agent signs the permit declarations form, the agent must provide the Authorization of Agent form and Owner Builder Verification form, completed by the property owner, with notarization or a copy of the owner's ID for verification purposes*
2. Submit completed Permit Application Fee Schedules to add plumbing fees to the permit record. ***Note:*** *As of January 1st, 2023 an automatic gas shut off valve shall be installed when a plumbing or mechanical permit is issued for work on any building [BMC 19.34.040 section1209.4].*
3. Submit completed Construction Waste Management Plan, including GreenHalo tracking number, prior to permit issuance.
4. Provide payment for outstanding permit fees, totaling $38,724.20.

   This amount does not include itemized fees for plumbing permits. Additional fees may apply.

*See Document Submittal Instructions at the end of this letter.

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

Permit Service Center
Building & Safety Division
Planning and Development Department

February 27, 2026

Document Submittal Instructions

All required forms may be downloaded from the City of Berkeley website forms page at https://berkeleyca.gov/construction-development/permits-design-parameters/permit-types/permit-forms

For permit issuance, follow the instructions for payment and document formatting below.

Document formatting requirements:

- All permit documents must be submitted in electronic format, as unsecured PDF files.
- Documents with multiple pages must be combined and named according to content.
- Documents that are incomplete or improperly formatted will not be processed.

Document submittal options (choose one):

1) **Permits Online:**
   a. ***Conditions of approval documents:*** Upload submittal documents directly to the permit record at the Permits Online Portal, by selecting *Record Info* > *Attachments* > *Add*. Permit documents are accessible from the registered Accela Citizen Access (ACA) account associated with the permit.
   b. New/separate permit: Generate new request from a registered ACA account at the Permits Online Portal. Submit request under 'Building Permits' for work on private property, or 'Public Works' for work in the public right of way.
2) **In-Person:** Schedule an appointment for in-person processing through the Permit Service Center webpage. Note that for all in-person submittals, documents must be saved on a USB thumb drive.

Payments may be made online at the Permits Online Portal, by opening the permit record, and selecting *Building Permits >Payments > Pay Fees.* In-person payments may be made Mon-Thurs from 8:30AM and 2:00PM. Checks may be mailed to the address below.

Expiration of an issued permit: Permits issued by the building official shall expire one year from the date of issuance. The building official or the supervising building inspector are authorized to grant one or more extensions of time to complete the work for additional periods not exceeding one year per extension. The extension shall be requested in writing and justifiable cause demonstrated. Requests for time extensions shall be accompanied by the payment of a fee set by resolution of the City Council. [BMC 105.5]

To apply for an permit extension, complete an Permit Extension Request form, and choose one of the two submittal options listed above.

1947 Center Street – 3rd Floor
Berkeley, CA 94704-1113
https://permits.cityofberkeley.info

Tel: (510) 981-7500
TDD: (510) 981-7450
Permits@CityofBerkeley.info

Docusign Envelope ID: B3A3CB69-BCF0-816C-8310-24B8E538A2EB

CONSTRUCTION WASTE MANAGEMENT PLAN

Building and Safety
Permit Service Center

Complete this form and submit it along with your building permit application when performing the following activities:

1. Any non-residential projects requiring building permits.

2. Residential new buildings.

3. Residential projects that increase a building's conditioned area, volume, or size.

4. Residential projects valued over $100,000.

5. Demolition permits valued over $3,000.

A minimum of 65% of the waste generated by construction and demolition activities must be diverted away from landfill disposal through any combination of recycling, salvage, reuse or composting. 100% of asphalt, concrete, and land clearing debris must be recycled.

Building and Safety
1947 Center St. 3rd floor
Berkeley, CA 94704
510-981-7440 TTY 6903
buildingandsafety@berkeleyca.gov

Project Information Permit Number:

Project Address:

Construction Methods

☐ Waste generated during construction will be minimized through a combination of efficient design, carefull and accurate material ordering, handling and storage, panelized or prefabricated construction, reuse, and/or salvage.

Universal and Hazardous Waste

Disposal of asbestos-containing materials, batteries, electronic waste, fluorescent bulbs, lead based paints, mercury containing equipment and refrigerants, require special processing prior to commencement of construction or demolition activities. Additional information can be found at the Bay Area Air Quality Management District, Alameda County Healthy Homes Department, and the City of Berkeley Toxics Management Division. Please select the option that is applicable to your project.

☐ This project does not involve disposal of universal or hazardous waste.

☐ This project includes disposal of universal or hazardous waste in a responsible, safe and verifiable manner.

Diversion Documentation

Green Halo tracking is required for all projects generating 100 pounds (or 55 gallons) of waste or more. Please select the option that is applicable to your project.

☐ A Construction Waste Management Plan has been submitted via Green Halo at www.berkeley.wastetracking.com. Prior to permit final, weight tickets for all materials disposed and recycled must be uploaded. Photos are acceptable for salvaged/reused materials.

Green Halo Tracking Number:

☐ A letter will be provided to the Building Inspector at the time of final inspection affirming that this project has produced less than 100 pounds (or 55 gallons) of waste, all waste was site-sorted, and any waste that could be recycled was recycled properly through a waste disposal service provider, either on-site or at the contractor's office/shop. (This option is subject to approval for the duration of the project.)

Acknowledgment

I understand the waste diversion requirements of Berkeley Municipal Code 19.37 and submit this Construction Waste Management Plan pursuant to California Green Building Standards Code 4.408.2 or 5.408.1.1.

Name Signature Date

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Form #100

PERMIT APPLICATION

Building - Electrical - Mechanical - Plumbing - Sign

Building and Safety
Permit Service Center

All plans and supporting documents must be submitted in electronic format as unsecured, flattened PDF(s) with embedded fonts. Minimum 11"x17" sheet size.

The valuation used in computing the building permit fee shall include the total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. BMC Section 19.28.20.

California Licensed General, Electrical, Mechanical, and Plumbing Contractors are required to have a City of Berkeley Business License and must provide Worker's Compensation Carrier and Policy Number prior to or at the time of permit issuance.

Permit Service Center
1947 Center St. 3rd floor
Berkeley, CA 94704
510-981-7500 TTY 6903
permits@cityofberkeley.info

Project Information Permit #:

Address:

Valuation: APN:

Parcel Conditions

Fire Zone: ☐ 1 ☐ 2 ☐ 3 ☐ Landslide Area ☐ Alquist Priolo

Flood Zone: ☐ A ☐ B ☐ C ☐ Liquefaction Zone ☐ Creek on the Parcel

Project Specific Information

Occupancy: ☐ Single-Family/Duplex/ADU ☐ Multi-Family ☐ Commercial/Industrial

Work Type: ☐ New ☐ Addition ☐ Alteration ☐ Demolition ☐ Sign

Other:

Permit(s): ☐ Building ☐ Electrical ☐ Mechanical ☐ Plumbing

Description of Work:

Work in the public right of way is required: ☐ Yes ☐ No

	Construction Type	Occupancy Class	Square Footage	No. of Stories	No. of Residential Units	No. of Bedrooms
Existing						
Proposed						

Residential Rental Units: ☐ Yes ☐ No Is tenant relocation required? ☐ Yes ☐ No

Applicant Information ☐ Owner ☐ Agent ☐ Contractor ☐ Design Professional

Name: Phone #:

Company: Bus Lic #:

State Lic #: Lic Class:

Address: City, Zip:

Email:

Owner Information

Name: Phone:

Address: City/ST/zip:

Email:

Last Revised 07/01/19

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Project Information Permit #:

Address:

Mechanical Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Mechanical Permit Fee includes:	
1	• Mechanical Filing Fee	$22.00
1	• Mechanical Minimum Permit Fee	$100.00
1	• Mechanical Technology Fee	5%
	Air Handling Equipment *Up to 10,000CFM*	$26.30
	Air Handling Equipment *Over 10,000 CFM*	$39.30
	Boilers and Equipment[2] *Up to 100 kBTU*	$39.90
	Boilers and Equipment[2] *100 - 500 kBTU*	$54.00
	Boilers and Equipment[2] *Over 500 kBTU*	$129.00
	Central Heating[2] *Up to 100 kBTU*	$39.70
	Central Heating[2] *100 - 500 kBTU*	$54.00
	Central Heating[2] *Over 500 kBTU*	$129.00
	Ducts, Fans, Registers, Dampers	$11.90
	Gas Appliances (1-2)	$13.00
	Gas Appliances (3+)	$12.00
	Gas Pipe Outlets[1,3]	$5.60
	Gas Piping Extension, Alteration or Repair[1,3]	$12.20
	Gas Pressure Test[1]	$14.10
	Gas Meters[1,3] *New or Changed*	$13.10
	Hoods Commercial[2] *Type I*	$129.00
	Hoods Commercial[2] *Type II*	$79.70
	Hoods Residential[2]	$11.80
	Permit Extension	$57.00
	Pre-fab. Fireplaces[2]	$79.70
	Vent, Flue, Chimney	$13.10

1. Do not duplicate fees for gas work on mechanical and plumbing fee schedules

2. Includes attached ducts, flues, vents, registers, and associated electrical, except a new circuit run from panel

3. Includes Pressure Test

Electrical Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Electrical Permit Fee includes:	
1	• Electrical Filing Fee	$22.00
1	• Electrical Minimum Fee	$100.00
1	• Electrical Technology Fee	5%
	A. New Residential Buildings & Additions • Includes Device Outlets • Per 100 Sq Ft - Enter Total Sq Ft	$15.00
	B. Non-Residential Electrical Permit • $100,000 min valuation of electrial work • Includes all itemized fees list below • Enter total valuation of work	1%
	C. Itemized Fees:	
	Altering/Changing Wiring	$26.10
	Branch Circuits	$4.70
	Device Outlets *Receptacle, Switch, Light*	$2.70
	Electrical Meters *New or Changed*	$7.20
	Electrical Permit Extension	$57.00
	Electrical Vehicle Charging Station	$15.90
	Festoon Lighting	$10.00
	Fixed Appliance Outlet	$11.10
	Generators - up to 10KV *Total KV*	$7.20
	Generators - over 10KV *Total KV*	$1.90
	Motors - up to 10 HP *Total HP*	$7.20
	Motors - over 10 HP *Total HP*	$1.90
	PG&E Service Recheck	$11.90
	Service - New or Changed *Total Amps*	$11.90
	Signs and Outline Lighting	$26.50
	Solar Photovoltaic System	$26.10
	Subpanel - New or Changed *Total Amps*	$11.90
	Temporary Power Pole	$26.50
	Transformers - up to 10 KV *Total KV*	$4.80
	Transformers - over 10KV *Total KV*	$1.90
	X-Ray Capacitors	$26.50

PERMIT APPLICATION - Mechanical, Electrical and Plumbing Fee Schedules

Plumbing Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Plumbing Permit Fee includes:	
1	• Plumbing Filing Fee	$22.00
1	• Plumbing Minimum Permit Fee	$100.00
1	• Plumbing Technology Fee	5%
	A. New Residential Buildings & Additions • Includes fixtures & interior water lines • Per 100 Sq Ft - *Enter total Sq Ft*	$15.00
	B. Itemized Fees:	
	Fixtures *include sanitary drainage/venting*	$12.20
	Gas Pipe Outlets[1]	$5.60
	Gas Piping Extension/Alteration/Repair[1]	$12.20
	Gas Pressure Test Only[1]	$14.10
	Gas Meters *New or Changed*[1]	1 $13.10 2+ $9.10
	Graywater System *Single Family Dwelling, Duplex or ADU*	$39.90
	Graywater System *All Other Occupancies*	$105.70
	Inside Rain Leader	$27.40
	Lawn Sprinkler System *Single-Family Dwelling, Duplex or ADU*	$39.90
	Lawn Sprinkler System *Other Occupancies*	$105.70
	Nonpotable Rainwater Catchment System *Single-Family Dwelling, Duplex or ADU*	$39.90
	Nonpotable Rainwater Catchment System *Other Occupancies*	$105.70

Qty	Fee Item	Fee
	B. Itemized Fees (continued):	
	Plumbing Permit Extension	$57.00
	Pressure Test *Water or Air*	$14.40
	Removal of Illicit Connections	$12.20
	Sanitary Sewer Lateral	$34.00
	Seismic Gas Shut-Off Valve	$10.00
	Seismic Gas Shut-Off Valve *2+ Group Permit*	$50.00
	Solar Water Heater	$12.20
	Stand Pipe System	$129.10
	Subsoil Storm Drainage Piping	$34.00
	Swimming Pool Filtration System	$129.10
	Water Heater	$12.20
	Water Line *Total Outlets*	<26 $24.90 26+ $2.70
	Water Line *Hydronic Water Piping*	$24.90
	Water Main *Total Outlets*	<26 $24.90 26+ $2.70
	Water Meters *New or Changed*	1 $14.40 2+ $8.40ea
	Water Meters *Backflow Preventer*	$12.20

1. Do not duplicate fees for gas work on mechanical and plumbing fee schedules

Contractor Information *for Electrical, Mechanical and Plumbing permits*

☐ General ☐ Mechanical ☐ Electrical ☐ Plumbing

Name: Phone: Bus Lic #:

Company: State Lic #: Lic. Class:

Address:

Email:

☐ General ☐ Mechanical ☐ Electrical ☐ Plumbing

Name: Phone: Bus Lic #:

Company: State Lic #: Lic. Class:

Address:

Email:

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PERMIT DECLARATIONS

Building and Safety Permit Service Center

Permit Declarations are required to be completed and signed at permit issuance.

For verification purposes, a copy of the property owner's driver's license, state issued identification card, passport, or form notarization is required to be presented at permit issuance and payment of permit fees.

Licensed Contractors must complete the following:

- Licensed Contractor's Declaration and Information
- Worker's Compensation Declaration

Property Owners and Owner's Agent must complete the following:

- Owner Builder Declaration
- Owner-Builder Verification and Limitation of Sale (separate form)
- Authorization of Agent (separate form required for owner's agent)

Contractors State License Board website: www.cslb.ca.gov

Permit Service Center
1947 Center St. 3rd floor
Berkeley, CA 94704
510-981-7500 TTY 6903
permits@cityofberkeley.info

Project Address: _____

Permit Number: _____

LICENSED CONTRACTOR'S DECLARATION AND INFORMATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Company Name: _____

License Number: _____ Class: _____ Exp. Date: _____

OWNER BUILDER DECLARATION

I hereby affirm under penality of perjury that I am exempt from the Contractors' State License Law for the reason(s) indicated below by the checkmark(s) I have placed next to the applicable item(s) (Section 7031.5, Business and Professions Code: Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure, sidewalk, or street prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt from licensure and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penality of not more than five hundred dollars ($500).

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do ☐ all of or ☐ portions of the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who, through employees' or personal effort, builds or improves the property, provided that the improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the Owner-Builder will have the burden of proving that it was not built or improved for the purpose of sale).

☐ I, as the owner of the property, am exclusively contracting with licensed Contractors to construct the project (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who builds or improves thereon, and who contracts for the projects with a licensed Contractor pursuant to the Contractors' State License Law.) **Completion of the contractor's information above is required.**

☐ I am exempt from licensure under the Contractors' State License Law for the following reason: _____

By my signature below, I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted, and can be found at the following website: http://leginfo.legislature.ca.gov/

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PERMIT DECLARATIONS

WORKER'S COMPENSATION DECLARATION

Warning: Failure to secure workers' compensation coverage is unlawful, and shall subject an employer to criminal penalties and civil fines up to one hundred thousand dollars ($100,000), in addition to the cost of compensation, damages as provided for in section 3706 of the Labor Code, interest, and attorney fees.

I hereby affirm under penality of perjury one of the following declarations:

☐ I certify that the permit valuation is for five hundred dollars ($500.00) or less, and therefore exempt from workers' compensation as provided for by Section 7048 of the Business and Professions Code.

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. **Certificate Number:**

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

Carrier Name:

Policy Number: Expiration Date:

Name of Agent: Phone Number:

☐ I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

CONSTRUCTION LENDING AGENCY DECLARATION

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Section 8172, Civil Code).

Lender Name: Branch Designation:

Lender Address:

CITY ORDINANCES DECLARATIONS

☐ I understand my obligation to perform construction related work within prescribed hours as set forth in the City of Berkeley Noise Ordinance and/or Use Permit conditions. BMC 13.40.070

☐ I am aware of my responsibilities under the Relocation Ordinance. BMC 13.84

☐ I certify that I have read and shall use applicable portions of the State Storm Water Best Management Practices Manual for Construction to the maximum extent practicable.

LEAD HAZARD DECLARATION

☐ I am aware of my responsibilities to implement lead-safe work practices as required by the State of California Health and Safety Code Sections 17920.10 and 105256 when conducting renovation, repair, or painting work in pre-1978 residences, childcare facilities, or schools. I will ensure that any paint disturbing work will be done by or supervised by RRP certified individual(s). Failure to follow this rule may result in enforcement action by the EPA.

BAAQMD DECLARATION

☐ I am aware of my responsibilities to comply with the requirements of the Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2 pertaining to disturbing regulated asbestos-containing materials (RACM).

CERTIFICATE OF INDEMNIFICATION

☐ I hereby agree to defend, indemnify and hold harmless the City of Berkeley and it's officers and employees from any and all claims arising from work connected to this permit.

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION OF ENTRY

☐ I agree to comply with all state laws and city and county ordinances relating to building construction and authorize a representative of the City of Berkeley Building and Safety Division to enter upon the property for which I have applied for this permit for the purpose of making inspections.

By my signature below, I hereby affirm under penalty of perjury that each of the above declarations are true.

Check One: ☐ Contractor ☐ Owner ☐ Owner's Agent

Name	Signature	Date

CITY OF BERKELEY

COMMUNITY WORKFORCE AGREEMENT

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Agreement to be Bound

COMMUNITY WORKFORCE AGREEMENT
For the
City of Berkeley

This Agreement is made and entered into retroactively from July 1, 2023 by and between the City of Berkeley ("City") together with other contractors and/or sub-contractors, who shall become parties to this Agreement by signing the "Agreement to be Bound" (Attachment A), and the Local Unions signatory hereto and the Alameda County Building & Construction Trades Council ("Council") and its affiliated local unions who have executed this Agreement.

PURPOSE

The purpose of this Agreement is to support the efforts of the City to increase employment opportunities for workers who reside in Berkeley, to help increase training and employment opportunities for Berkeley residents in the construction trades through apprenticeship and pre-apprentice programs as the students graduate from the City's schools, to promote efficiency of construction operations performed for and within the City of Berkeley and to provide for peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the projects.

RECITALS

WHEREAS, the successful completion of the City's construction projects is of the utmost importance to the City of Berkeley; and

WHEREAS, the interests of the general public, the City, the Unions and Contractor(s) would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor(s) and the Unions desire to mutually establish and stabilize wages, hours and calendar conditions for the workers employed on construction work for and within the City of Berkeley by the Contractor(s), and further, to encourage close cooperation among the Contractor(s) and the Union(s) to the end that a satisfactory, continuous and harmonious relationship will exist among the parties to this Agreement; and

WHEREAS, contracts for construction work within the City of Berkeley will be awarded in accordance with the applicable provisions of the Charter of the City of Berkeley, the California State Public Contract Code and the Labor Code, including but not limited to requiring competitive bidding and prevailing wages; and

WHEREAS, the City of Berkeley has the absolute right to select the lowest responsive and responsible bidder for the award of the construction contracts on the Projects; and

WHEREAS, the parties signatory to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the Projects;

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

ARTICLE 1
DEFINITIONS

1.1 “Agreement” means this Community Workforce Agreement.

1.2 "Berkeley Resident" means any individual who is a current resident of Berkeley can certify through a utility bill, or other similar means acceptable to the parties to this Agreement that the individual resides within the boundaries of the Berkeley City Limits.

1.4 “City” means the City of Berkeley.

1.5 “Completion” means that point at which the City accepts a project at issue by filing a Notice of Completion, or as otherwise provided by applicable state law. “Punch list” items and any other work within the scope of this Agreement not completed prior to commencement of revenue service shall nonetheless be included within the scope of this Agreement. It is understood by the parties that portions of the Projects may be completed in phases and Completion of any such phase may occur prior to Completion of the Projects.

1.6 “Contractor(s)” and/or “Subcontractor(s)” means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and has entered into a contract with the City or any of its contractors or subcontractors of any tier, with respect to the construction work necessary for any part of the Projects. This shall include subcontractors not required to be listed in the bid documents. As applicable depending on its context, “Contractor” shall refer to Contractor or Contractor and Subcontractor.

1.7 “Construction Contract(s)” means all of the contract(s) for construction of any of the Projects.

1.8 “Council” means the Alameda County Building and Construction Trades Council, AFL-CIO.

1.9 "New Apprentice” is a Berkeley Resident who is enrolled in a State of California approved apprenticeship program that is a joint labor management apprentice program for no more than twenty-four months

1.11 “Projects” mean any construction project of the City whose value as estimated by the City meets or exceeds $500,000 (Five hundred thousand) dollars.

1.12 “Union” or “Unions” means the Council and any other labor organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

1.13 “Project Manager” means the person or persons or business entity designated by the City to oversee all phases of construction on the Projects.

1.14 “Master Labor Agreement” or “MLA” shall mean the collective bargaining agreement of each craft Union that is Signatory to this Agreement

1.15 “Calendar Day” shall mean any day, relating to any day of the week including Saturday, Sunday and public holidays.

1.16 “ Apprenticeship Program” -Recognizing the need to develop adequate numbers of competent workers in the construction industry, the Contractor(s)/Employer(s) shall employ apprentices of a California State-approved Joint Apprenticeship Program in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

The apprentice ratios will be in compliance with the applicable provisions of the applicable “Master Labor Agreement”.

ARTICLE 2
SCOPE OF AGREEMENT

2.1 Parties: This Agreement shall apply and is limited to all Contractors and subcontractors performing Construction Contracts necessary for the Projects, the City, the Council and any other labor organization signatory to this Agreement, acting in their own behalf and behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

2.2 Project Description: This Agreement shall govern the award of all of the Construction Contracts identified by the City as part of the Projects. The City has the absolute right to combine, change, consolidate, suspend or cancel Construction Contract(s) or portions of Construction Contract(s) identified as part of the Projects. Should the City suspend or remove any contract from the Projects and thereafter authorize that construction work be commenced on such contract, then such contract shall be performed under the terms of this Agreement. Once a Construction Contract is completed it is no longer covered by this Agreement except when a Contractor is directed to engage in repairs, warranty work or modifications required by its

Construction Contract with the City. For the purposes of this Agreement, a Construction Contract shall be considered Completed as set forth in Section 1.5 of this Agreement.

2.3 Covered work:

2.3.1 This Agreement covers, without limitation, all on-site construction, demolition, alteration, painting or repair of buildings, structures, landscaping, temporary fencing and other works and related activities for the Projects that is within the craft jurisdiction of one of the Unions and that is part of the Projects, including, without limitation, pipelines, site preparation, survey work, demolition of existing structures and all construction, demolition or improvements required to be performed as a condition of approval by any public agency. This scope of work includes all soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published.

2.3.2 The Projects include work necessary for the Projects and/or in temporary yards or areas adjacent to and dedicated to the Projects, and at any on-site batch plant(s) constructed solely to supply materials to the Projects, when those sites are dedicated exclusively to the Projects. This Agreement covers all on-site fabrication work over which the City, Contractor(s) or subcontractor(s) possess the right of control (including work done for the Projects in any temporary yard or area established for the Projects.)

2.3.3 The furnishing of supplies, equipment or materials which are stockpiled for later use shall in no case be considered subcontracting. Construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill material which are directly incorporated into the construction process as well as the off-hauling of debris and excess fill material and/or mud, shall be covered by the terms and conditions of this Agreement, to the fullest extent provided by law and by prevailing wage determinations of the California Department of Industrial Relations. Employers, including brokers, of persons providing construction trucking work shall provide certified payroll records to the City within ten (10) calendar days of written request or as required by bid specifications.

2.4 Exclusions: The following shall be excluded from the scope of this Agreement:

2.4.1 This Agreement is not intended to, and shall not affect or govern the award of public works contracts by the City which are outside the identified scope of work of the Projects.

2.4.2 This Agreement is not intended to, and shall not affect the current or anticipated operation, maintenance, access or use of any of the City's buildings or facilities, whether or not such facilities are identified in Section 1.7 above.

2.4.3 This Agreement shall not apply to a Contractor or subcontractor’s executives, managerial employees, engineering employees, design employees, supervisors (except

those covered by existing building and construction trades collective bargaining agreements), office and clerical employees.

2.4.4 This Agreement shall not apply to any work performed on or near or leading to the site of work covered by this Agreement that is undertaken by state, county or other governmental bodies or their contractors; or by public or private utilities or their contractors; or by the City or its contractors for work not part of the scope of the Projects. Parties performing work shall notify in writing, The Council and The District of any work being performed near or leading to the site work that is not covered by this agreement. Further, this Agreement shall not be construed to prohibit or restrict the City or its employees from performing work on or around the Project construction sites or from entering the sites for any purposes deemed necessary or appropriate by the City.

2.4.5 This Agreement shall not apply to the off-site maintenance of leased equipment or the on-site supervision of such work.

2.4.6 This Agreement shall not apply to any start-up, calibration, performance testing, repair, maintenance, operational revisions to systems and/or subsystems performed after Completion.

2.5 Termination, Suspension and/or Delay of Work: It is understood and agreed that the City, at its sole option, may change, terminate, delay and/or suspend any and all portions of the covered work at any time. Further, the City may prohibit some or all work on certain days or during certain hours of the day to comply with applicable codes, laws or regulations, permits or to accommodate the ongoing operations of the City's facilities and/or to mitigate the effect of the ongoing Projects' work on the businesses and residents in the neighborhood of the Project sites; and/or require such other operational or schedule changes that it may be deemed necessary, in its sole judgment, to effectively maintain the primary purpose of the City's facilities and to remain a good neighbor to the residents and businesses in the area of any Projects. In order to permit the Contractors and Unions to make appropriate scheduling plans, the City will provide the affected Contractor and Union(s) with reasonable notice of any changes it requires pursuant to this Section.

2.6 Work covered by this Agreement within the following craft jurisdictions shall be performed under the terms of their National Agreements as follows: the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of Elevator Constructors, and any instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Technicians, with the exception that Articles 4, 8,12 and 13 of this Agreement shall apply to such work.

ARTICLE 3
EFFECT OF AGREEMENT/SUBCONTRACTORS

3.1 By executing this Agreement, the Unions and the City agree to be bound by each and every provision of this Agreement.

3.2 By accepting the award of a Construction Contract for the Projects, whether as contractor or subcontractor at any tier, the Contractor/Subcontractor agrees to be bound by each and every provision of this Agreement.

3.3 This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any other party.

3.4 It is understood that this Agreement, together with the referenced MLA , constitute an integrated, self-contained, stand-alone agreement, and that by virtue of having become bound to this Agreement, the Contractor will not be obligated to sign any other local, area, or national agreement as a condition of performing work within the scope of this Agreement. In addition, it is understood and agreed that all grievances and disputes involving the interpretation or application of this Agreement, including the MLA, shall be resolved according to the procedures set forth in Article 12 of this Agreement; provided, however, that should a dispute involve a single MLA and a Contractor signatory thereto, and not involve interpretation or application of this Agreement, then such dispute shall be processed and resolved pursuant to the grievance provisions of that MLA. Should there be a dispute in the first instance as to whether the provisions of Article 12 of this Agreement or the grievance procedures of a MLA apply, the dispute shall be presented initially to arbitrator Judge William Cahill or, if unavailable, arbitrator Earnest Brown, for resolution as to the applicable procedure. Such referral of a dispute as to the applicable procedures shall be done by an immediate conference call among the parties and the arbitrator, and heard and decided within three (3) calendar days. Should the arbitrator hold that Article 12 applies, the parties may, by mutual agreement, submit the issue to the same arbitrator pursuant to the provisions of Article 12, or, absent mutual agreement, commence processing the dispute at Step 1 of that Article.

3.5 Subcontractors. At the time that any Contractor enters into a subcontract with any subcontractor of any tier for the performance of construction or construction trucking work within the scope of this Agreement, the Contractor shall provide a copy of this Agreement, as it may from time to time be modified by the negotiating parties, to said subcontractor and shall require the subcontractor as a part of accepting an award of a construction subcontract to agree to be bound by each and every provision of the Agreement prior to the commencement of work.

3.5.1 Each Contractor and Subcontractor shall evidence their agreement to be bound to this Agreement by executing the Agreement To Be Bound form attached hereto as Appendix A. A copy of the Agreement To Be Bound executed by the Contractors and Subcontractors shall be submitted to the Union(s) prior to both the commencement of work and the Pre-Job Conference and will be a required submittal within the City's bid packages. If the Contractor or Subcontractor refuses to execute the Agreement To Be

Bound, then such Contractor or Subcontractor shall not be awarded a Construction Contract to perform work on the Projects. A Contractor or Subcontractor who executes the Agreement to Be Bound shall be considered a signatory party to this Agreement.

3.6 It is understood that the liability of each Contractor and Subcontractor and the liability of each Union under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City and/or any Contractor or Subcontractor.

3.7 With regard to any Contractor or subcontractor that is independently signed to any MLA, this Agreement shall in no way supersede or prevent the enforcement of any subcontracting clause contained in such MLA, except as specifically set forth in section 3.7.1 of this Agreement. Any such subcontracting clause in a MLA shall remain and be fully enforceable between each craft union and its signatory employers and no provision of this Agreement shall be interpreted and/or applied in any manner that would give this Agreement precedence over subcontracting obligations and restrictions that exist between craft Unions and their respective signatory employers under a MLA, except as specifically set forth in section 3.7.1 in this Agreement. To the extent that the provisions of this Agreement are inconsistent with any other provisions contained in a MLA, the provisions of this Agreement shall prevail

3.7.1 If a craft Union ("Aggrieved Union") believes that an assignment of work on this Project has been made improperly by a Contractor or subcontractor, even if that assignment was as a result of another craft Union's successful enforcement of the subcontracting clause in its MLA, as permitted by section 3.7 of this Agreement, the Aggrieved Union may submit a claim under the jurisdictional dispute resolution procedure contained in Article 13 of this Agreement and the decision rendered as part of that process shall be enforceable to require the Contractor or subcontractor that made the work assignment to assign that work prospectively to the Aggrieved Union. An award made to a craft Union under the subcontracting clause of its MLA, as permitted under section 3.7 of this Agreement, shall be valid and fully enforceable by that craft Union unless it conflicts with a jurisdictional award made pursuant to Article 12 of this Agreement. If the award made under MLA conflicts with the jurisdictional award, the award of any damages under the former shall be null and void *ab initio.*

ARTICLE 4
WORK STOPPAGES, STRIKES, SYMPATHY STRIKES, JURISDICTIONAL DISPUTES AND LOCKOUTS

4.1 The Unions, City and Contractor agree that for the duration of the Projects:

4.1.1 There shall be no strikes, sympathy strikes, work stoppages, picketing, hand-billing or otherwise advising the public that a labor dispute exists, or slowdowns of any kind, for any reason, by the Unions or construction persons employed on the Projects, at a job site of the Projects or at any other facility of the City because of a dispute on the Projects. Nor shall the Unions or construction persons employed on the Projects participate in any strikes, sympathy strikes, work stoppages, picketing, hand billing,

slowdowns, or otherwise advising the public that a labor dispute exists at a Project jobsite because of a dispute between Unions and Contractor(s) on any other project.

4.1.2 As to construction persons employed on the Projects, there shall be no lockout of any kind by a Contractor covered by this Agreement. It shall not be a violation of this Article if a Contractor or Subcontractor (1) suspends or terminates a portion of the Project work or (2) discharges an employee for just cause.

4.1.3 If a MLA between a Contractor and the Union expires before the Contractor completes the performance of a Construction Contract and the Union or Contractor gives notice of demand for a new or modified MLA, the Union agrees that it will not strike, picket, hand-bill, slowdown or engage in any other disruptive activity against the Contractor and the Contractor will not lockout construction persons of the Union on said Construction Contract for work covered under this Agreement and the Union and the Contractor agree that the expired MLA shall continue in full force and effect for work covered under this Agreement until a new or modified MLA is reached between the Union and Contractor. If the new or modified MLA reached between the Union and Contractor provides that any terms of the new MLA shall be retroactive, the Contractor agrees to comply with any retroactive terms of the new or modified MLA which are applicable to construction persons employed on the Projects within seven (7) calendar days.

4.2 A party to this Agreement shall institute the following procedure, prior to invoking any other action at law or equity when a breach of this Article 4 is alleged to have occurred:

4.2.1 A party invoking this procedure shall notify, by the most expeditious means available, with notice by facsimile, electronic mail or telephone to the City, to the party alleged to be in violation, to the Council and to the involved local Union if a Union is alleged to be in violation.

4.2.2 Upon receipt of said notice, the City will contact the designated permanent arbitrator, Judge William Cahill, or if unavailable, his alternate Ernest Brown, who shall attempt to convene a hearing within twenty-four (24) hours if it is contended that the violation still exists.

4.2.3 The Arbitrator shall notify the parties by facsimile, electronic mail or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

4.2.4 The sole issue at the hearing shall be whether or not a violation of Article 4, Section 4.1 of this Agreement has occurred. The arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to

award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) calendar days, but its issuance shall not delay compliance with or enforcement of the award. The arbitrator may order cessation of the violation of this Article 4 and other appropriate relief and such award shall be served on all parties by hand or registered mail upon issuance.

4.2.5 Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the arbitrator's award as issued under Section 4.2.4 of this Article 4, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order or enforcement. The Court's order or orders enforcing the arbitrator's award shall be served on all parties by hand or delivered by certified mail.

4.2.6 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance are waived by the parties.

4.2.7 The fees and expenses of the arbitrator shall be divided equally between the party instituting the arbitration proceedings provided in this Article and the party alleged to be in breach of its obligations under this article.

4.3 Liquidated Damages. If the arbitrator determines that a violation of Section 4.1 has occurred, the breaching party shall, within eight (8) hours of the issuance of the decision take all steps necessary to immediately cease such activities and return to work. If the breaching party involved does not cease such activities by the beginning of the next regularly scheduled shift following the expiration of the eight (8) hour period after the arbitrator's issuance of the decision, then the breaching party shall pay the sum of ten thousand dollars ($10,000) as liquidated damages to the City per shift until the breach is remedied. The arbitrator shall retain jurisdiction for the sole purpose of determining compliance with this obligation and determining the amount of liquidated damages, if any; but such retention shall not prevent the moving party from seeking judicial enforcement of the initial decision.

ARTICLE 5
PRE-JOB CONFERENCE

5.1 A mandatory pre-job conference shall be held prior to the commencement of each Construction Contract. Such conference shall be attended by a representative each from the participating Contractor(s) and Union(s) and the Project Manager. All efforts will be made to hold the pre-job conference in sufficient time to ensure all parties the ability to properly raise and resolve any issue that may arise out of such meeting, with a

goal that such conferences will be held at least 21 work days before the work commences.

ARTICLE 6
NO DISCRIMINATION

6.1 The Contractors and Unions agree not to engage in any form of discrimination on the ground of or because of race, color, creed, national origin, ancestry, age, religious or political affiliation, gender, sexual orientation or disability against any person, or applicant for employment on the Projects.

ARTICLE 7
UNION SECURITY

7.1 The Contractors recognize the Union(s) as the sole bargaining representative of all construction persons working within the scope of this Agreement.

7.2 All construction persons who are employed by the Contractor(s) shall, as a condition of employment, on or before the eighth (8th) day of consecutive or cumulative employment on the Projects, be responsible for the payment of the applicable monthly working dues and any associated fees uniformly required for union membership in the applicable local union which is signatory to this Agreement. Further, there is nothing in this Agreement that would prevent non-union construction persons from joining the local union.

ARTICLE 8
REFERRAL AND LOCAL HIRE PROGRAM

8.1 Referral

8.1.1 Contractor (s) performing construction work on the Projects described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Unions signatory hereto ("Job Referral System"). Such Job Referral System will be operated in a non-discriminatory manner and in full compliance with all federal, state, and local laws and regulations, including those which require equal employment opportunities and nondiscrimination.

8.1.2 The Contractor(s) shall have the right to reject any applicant referred by the Union(s), in accordance with the applicable Master Agreement.

8.1.3 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above general foreman it considers necessary and desirable, without such persons being referred by the Unions(s).

8.1.4 In the event that referral facilities maintained by the Union(s) are unable to fill the requisition of a Contractor(s) for employees within a seventy-two (72) hour period after

such requisition is made by the Contractor(s), the Contractor(s) shall be free to obtain employees from any source. Contactor(s) shall promptly notify the Union(s) of any applicants hired from other sources. This provision does NOT affect core employees as defined below.

8.1.5 Unions shall exert their utmost efforts to recruit sufficient numbers of skilled craft persons to fulfill the requirements of the Contractor(s).

8.1.6 Core Employees

All parties agree to make a good faith effort to refer on a priority basis, consistent with the non-discriminatory referral procedures of the hall, qualified and available, and bona-fide Berkeley Residents for Project work.

8.1.7 The parties also recognize and support the City's commitment to provide opportunities for participation on the Projects to Berkeley Residents who are regular, experienced employees ("Core" employees) of contractors and subcontractors awarded work on the Projects and who do not traditionally work under a local collective bargaining agreement(s). In furtherance of this commitment, the parties agree that such contractors and subcontractors awarded work on the Projects may request by name, and the local will honor, referral of persons who have applied to the local union for Project work and who demonstrate the following qualifications:

(1) Possess any license required by state or federal law for the Project work to be performed;

(2) Have worked a total of at least one thousand (1,000) hours in the construction craft during the prior three (3) years;

(3) Were on the Contractor's active payroll for at least sixty (60) out of the one hundred and eighty (180) calendar days prior to the contract award;

(4) Have the ability to perform safely the basic functions of the applicable trade, and

(5) Are Berkeley residents.

The Union will refer to such Contractor one journeyman employee from the hiring hall out-of-work list for the affected trade or craft, and will then refer one of such Contractor's "core" employees as a journeyman and shall repeat the process, one and one, until such Contractor's crew requirements are met or until such Contractor has hired five (5) "core" employees, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list(s). For the duration of the Contractor's work the ratio shall be maintained and when the Contractor's workforce is reduced, employees shall be reduced in the same ratio of core employees to hiring hall referrals as was applied in the initial hiring.

8.1.8 The Contractor shall notify the appropriate Union of the name and social security number of each direct hire and each direct hire shall register with the Union's hiring hall before commencing Project work. If there is any question regarding an employee's eligibility under this Subsection 8.2.1, the City Representative, at a Union's request, shall obtain satisfactory proof of such from the Contractor.

8.2 Local Hire

8.2.1 To the extent allowed by law and consistent with the non-discriminatory referral procedures of the Union hiring halls, the Parties agree to a goal that Berkeley Residents will perform a minimum of 20% of the hours worked, on a craft by craft basis for the Projects. The Contractor(s) shall make good faith efforts to reach this goal through the utilization of the Unions' hiring hall procedures. The Unions shall exercise their best efforts in their recruiting and training of Berkeley Resident workers and in their hiring hall procedures to facilitate this 20% goal on the Projects. In the event that referral facilities maintained by the Union(s) are unable to fulfill the 20% local hire requirement, paragraph 8.2.2 of this Article shall not apply. Contractors shall document all efforts to hire locally and provide such documents to the City of Berkeley. The Council will provide an annual census of Berkeley residents, in each of the crafts party to this agreement, to the City of Berkeley. This report will be provided by August 1 of each year of this agreement.

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8.2.2 Should any of the contractors performing work on the Projects fail to meet this 20% goal and fail to demonstrate efforts to do so, through a specific submittal process to be included in their contractual requirements and enforced by the grievance procedure. The contract's 10% retention will be held until such time that this failure is remedied, but not longer than sixty (60) calendar days after the date of substantial completion of the Projects or as required by law, in addition to the breach of contract remedies available to the parties for non-performance under this Agreement.

8.2.3 Apprenticeship & Workforce Development

A) Consistent with the requirements of California Labor Code §§ 1776, 1777.5 and 1777.6, Contractor(s) will be required to hire 1 New Apprentice Berkeley resident as for every $500,000 dollars or more of total construction bid amount. The New Apprentice(s) must work a minimum of 10% of the projects work hours. The contractor may deploy the apprentice to work on another concurrent project in order to meet the minimum hours, and those hours will be counted towards the total hours of the craft on the Berkeley project. Certified Payroll must reflect the hours worked.

Contractor must fully document efforts to hire a New Apprentice, through the following steps: 1) requesting New Apprentices through the Union dispatch procedure, 2) contacting a minimum of three MC3-approved pre-apprenticeship training programs for referral of Berkeley residents. Unions shall provide written documentation to the contractor in response to dispatch requests to fulfill the New Apprentice requirement, the next tier of residents will come from the Green Corridor.

B) There can be no more than 1 entry-level New Apprentices for each craft, provided said crafts have apprenticeship openings and the general contractor will be able to include New Apprentices hired by their subcontractor to meet this requirement. Unions will agree to cooperate with Contractor(s) in furnishing apprentices as requested and the hiring of the apprentices will be in accordance to the Apprenticeship provisions listed in the Master Agreements and or the union agreements with the division of apprenticeship standards, and the apprentices shall be properly supervised and paid in accordance with provisions contained within the MLA'S. The Unions and Contractors will agree to cooperate with local pre-apprenticeship programs to ensure Berkeley residents have the opportunity to apply for and enter the into the apprenticeship programs.

C) The intent of this provision is to utilize Berkeley Resident New Apprentices to the fullest extent permissible by state law and the MLA. Failure of Contractor(s) and their subcontractors to maintain qualified apprentices on the job will be subject to further penalties as determined by the Grievance Committee as identified in Article 12.

8.11 Enforcement, Compliance & Reporting.

Contractors will be required to submit Certified Weekly Payrolls to the City along with monthly workforce utilization reports documenting the Contractor's compliance with the requirements described in this article. At a minimum the monthly reports must include 1) data on Berkeley Resident's work hour utilization on a craft by craft basis, 2) number of New Apprentices hired and the hours they have worked, 3) documentation showing any requests made to the union dispatchers for Berkeley Residents and the Union's response to the request. Enforcement of this article shall be according to the Grievance and Arbitration procedure outlined in Article 12.

ARTICLE 9
HELMETS TO HARDHATS

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

9.2 The Union(s) and Contractor(s) agree to coordinate with the Center to participate in an integrated database of Veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Union(s) will give credit to such Veterans for bona fide, provable past experience.

ARTICLE 10
GRIEVANCE PROCEDURE

10.1 Any Contractor which is not otherwise bound through an agreement with a Union to a grievance procedure which confers jurisdiction to consider and resolve disputes over the imposition of discipline or dismissal of its construction persons working on this Project shall be bound to the arbitration procedure contained in the MLA of the craft representing the employee(s) involved in the dispute. For the purposes of this Article, such grievance procedure shall be limited to disputes regarding the imposition of discipline or dismissal arising from work covered by the Agreement. Such Contractor shall not impose discipline or dismissal on its construction persons covered by this Agreement without just cause.

ARTICLE 11
JOINT ADMINISTRATIVE COMMITTEE

11.1 The parties to this Agreement shall establish a five (5) person Joint Administrative Committee comprised of at least one and up to two (2) representatives representing the City; two (2) representatives of the signatory Unions and The Council; and one industry representative, mutually selected by the City and The Council. Each representative shall designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement.

11.2 The Joint Administrative Committee shall meet at the request of either party, but not less than once each quarter, to review the implementation of the Agreement and the progress of the Projects including, but not limited to, compliance with Article 8, prevailing wage, safety, Workforce development and Industry trends. Requests for certified payroll made by a Joint Labor/Management Committee to which the Union(s) signatory to this Agreement are a party shall be provided as allowed by law.

ARTICLE 12
GRIEVANCE ARBITRATION PROCEDURE

12.1 The parties understand and agree that in the event any dispute arises out of the meaning, interpretation or application of the provisions of this Agreement, the same shall be settled by means of the procedures set out herein. No grievance shall be recognized unless the grieving party provides notice in writing to the signatory party with whom it has a dispute within seven (7) calendar days after becoming aware of the dispute, but in no event more than thirty (30) calendar days after it reasonably should have become aware of the event giving to the dispute. The time limits in this Article 12 may be extended by mutual written agreement of the parties.

12.2 Grievances shall be settled according to the following procedures:

Step 1: Within seven (7) calendar days after the receipt of the written notice of grievance, the Business Representative of the involved Local Union, the City's authorized representative, representative of the construction person, and the representative of the involved Contractor shall confer and attempt to resolve the grievance.

Step 2: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days after its referral to Step 1, either involved party may submit it within three (3) calendar days to Grievance Committee. The Grievance Committee shall consist of one (1) person selected by the City and one (1) person selected by the Council, which shall meet within seven (7) calendar days after such referral (or such longer time as mutually agreed upon by all representatives of the subcommittee), to confer in an attempt to resolve the grievance. The decision of the Grievance Committee shall be legal, final and binding. If the dispute is not resolved within such time seven (7) calendar days after its referral or such longer time as mutually agreed upon) it may be referred within seven (7) calendar days by either party to Step 3.

Step 3: Within seven (7) seven calendar days after referral of a dispute to Step 3, the representatives shall submit the matter to the designated permanent Arbitrator, Judge William Cahill.

12.3 In the event that Judge Cahill is unavailable, the arbitrator shall be Earnest Brown.

12.4 The Arbitrator shall arrange for a hearing no later than fourteen days (14) calendar days after the matter has been submitted to arbitration. A decision shall be given to the parties within five (5) calendar days after completion of the hearing unless such time is extended by mutual agreement. A written opinion may be requested by a party from the Arbitrator. The time limits specified in any step of the Grievance Procedure set forth in Section 12.1 may be extended by mutual agreement of the parties initiated by the written request of one party to the other, at the appropriate step of the Grievance Procedure. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without the request for an extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

12.5 The decision of the Arbitrator shall be binding by all parties. The Arbitrator shall not have authority to change, amend, add, or detract from any of the provisions of the Agreement. The expense of the Arbitrator shall be borne equally by both parties.

12.6 In order to encourage the resolution of disputes and grievances at Step 1 and 2 of this Grievance Procedure, the parties agree that such settlements shall not be precedent-setting.

ARTICLE 13
JURISDICTIONAL DISPUTES

13.1 The assignment of Covered Work will be solely the responsibility of the Contractor/Employer(s) performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

13.2 All jurisdictional disputes on this Project between or among the Union(s) and the Contractor/Employer(s), parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department, or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractor/Employer(s) and Union(s) parties to this Agreement.

13.2.1 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch and Thomas Pagan and the Arbitrator's hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within fourteen (14) calendar days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

13.3 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor/Employer(s)' assignment shall be adhered to until the dispute is resolved. Individuals violating this Section shall be subject to immediate discharge.

13.4 Each Contractor/Employer(s) shall conduct a Pre-Job Conference with the Council prior to commencing Covered Work. The Primary Employer, Coordinator and the District will be advised in advance of all such conferences and may participate if they wish. Pre-job conferences for different Contractor(s) may be held together.

ARTICLE 14
APPRENTICES

14.1 Recognizing the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, the Contractor (s) shall employ apprentices in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

14.2 The apprentice ratios will be in compliance with the applicable provisions of the California Labor Code and Prevailing Wage Rate Determination.

14.3 There shall be no restrictions on the utilization of apprentices in performing the work of their craft provided they are properly supervised.

14.4 All Apprentices will come from a State approved Labor Management Apprenticeship program.

ARTICLE 15
MANAGEMENT RIGHTS

15.1 The Contractor shall retain full and exclusive authority for the management of their operations, including the right to direct their work force in their sole discretion with regard to the following: the hiring, promotion, transfer, layoff, corrective action or discharge for just cause of its employees (in accordance with Article 9); the determination of the number of employees needed for the Project work; the selection/hiring of foremen and supervisors; the assignment and schedule of work; the requirement of overtime work, the determination of when it will be worked, and the number of employees engaged in such work, except as otherwise limited by the terms of this Agreement and/or the MLA. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of construction persons except that the lawful manning provisions of the MLA shall be recognized.

ARTICLE 16
WAGES/BENEFITS

16.1 **Wages.** All construction persons covered by this Agreement shall be classified in accordance with work performed and paid the hourly wage rates for those classifications in the applicable MLA for such craft work and in compliance with the applicable prevailing wage rate determination.

16.2 **Benefits.** Contractor agrees to pay contributions into established construction person benefit funds in the amounts designated in the appropriate MLA; provided, however, that each Contractor and Union agree that only such bona fide construction person benefits as included in the prevailing wage determination shall be included in this requirement and required to be paid by the Contractor under this Agreement; provided further, however, that this provision does not relieve Contractors signatory to a local collective bargaining agreement with a signatory Union which would be applicable to the Projects from making

any other fund contributions (including, but not limited to, those for contract administration), required by such local agreement. Contractor shall not be required to pay contributions to any other trust funds to satisfy their obligation under this Article. By signing this Agreement, the Contractors adopt and agree to be bound by the written terms of the legally established Trust Agreements, specifying the detailed basis on which the payments are to be made into, and the benefits paid out of, such Trust Funds.

16.3 **Compliance.** It shall be the responsibility of the Contractor(s) and Unions to investigate and monitor compliance with the provisions of the agreement contained in Article 15. Nothing in this agreement shall be construed to interfere with or supersede the usual and customary legal remedies available to the Unions and/or employee benefit Trust Funds to collect delinquent Trust Fund contributions from Contractors on the Project.

ARTICLE 17
MODIFIED MASTER LABOR AGREEMENTS

17.1 Certain Provisions Shall Not Apply. Provisions negotiated into the new or modified MLA which are less favorable to the Contractor than those uniformly required of employers for construction work normally covered by those agreements or which may be construed to apply exclusively or predominately to work covered by this Agreement shall not apply to work covered by this Agreement. Any disagreement between the parties regarding the application of the provisions of any new or modified collective bargaining agreement to work covered by this Agreement shall be resolved under the dispute and grievance arbitration procedures set forth in Article 12 hereof.

ARTICLE 18
DRUG and ALCOHOL TESTING

18.1 The use, sale, transfer, purchase and/or possession of a controlled substance, alcohol and/or firearms at any time during the work day is prohibited.

18.2 Employer shall be allowed to utilize employment drug screens. All personnel are subject to random alcohol and drug/alcohol testing at any time, except, the following changes will apply. Employer shall follow said Unions Master Labor Agreement drug polices, regulations and limits. Body fluid tests will utilize urine and saliva specimens. Employer may also selectively require an employee to undergo alcohol or drug/alcohol testing if Employer has reasonable cause to believe that an employee's ability to work safely may be impaired. All requirements and activities of the Employer with regard to drug/alcohol testing shall comply with the provisions of State law.

ARTICLE 19
SAVINGS CLAUSE

19.1 The parties agree that in the event any article, provision, clause, sentence or word of this Agreement is determined to be illegal or void as being in contravention of any applicable law, by a court of competent jurisdiction the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void, by the court of competent jurisdiction, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or word which will meet the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or word in question.

19.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of this Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

ARTICLE 20
ENTIRE AGREEMENT

20.1 This Agreement represents the complete understanding of the parties. The provisions of this Agreement, including the MLA, shall apply to the work covered by this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a MLA, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a MLA and is not covered by this Agreement, the provisions of the MLA shall prevail. Nothing contained in a MLA, working rule, by-laws, constitution or other similar document of the Unions shall in any way affect, modify or add to this Agreement unless otherwise specifically set forth in this Agreement or mutually agreed to in writing executed by the parties.

20.2 The parties agree that this Agreement covers all matters affecting wages, hours, and other terms and conditions of employment and that during the term of this Agreement the parties will not be required to negotiate on any further matters affecting these or any other subject not specifically set forth in this Agreement except by mutual agreement of the parties.

20.3 This Agreement may be executed in counterparts, such that original signatures may appear on separate pages and when bound together all necessary signatures shall constitute an original. Facsimile signature pages transmitted to other parties to this Agreement shall be deemed the equivalent to original signatures.

ARTICLE 21
TERM

21.1 The Agreement shall be included as a condition of the award of the Construction Contracts.

21.2 The Agreement shall continue in full force and effect for a term of three years from the Effective Date of July 1, 2023 through June 30, 2026 and shall be applicable to all Projects until completion that are advertised for bidding during the term.

21.3 This Agreement shall continue in full force and effect until Completion of the Project. The parties may mutually agree to extend and/or amend this Agreement.

SIGNATURES

City of Berkeley

By:_____

Dee Williams-Ridley, City of Berkeley City Manager

Date:_____

Alameda County Building & Construction Trades Council, AFL-CIO

By:_____

Andreas Cluver, Secretary-Treasurer for the Building Trades Council of Alameda County on behalf of the Signatory Unions

Date: _____

Signatory Unions

Asbestos Workers, Local 16 Boilermakers, Local 549

Bricklayers & Allied Craftsmen

Local 3 Cement Masons, Local 300

Electrical Workers, Local 595

Elevator Constructors, Local 8

Hod Carriers, Local 166

Iron Workers, Local 378

Laborers, Local 67

Laborers, Local 304

Operating Engineers,

Local 3 Plasterers, Local 66

Roofers, Local 81

Sheet Metal Workers, Local 104

Sign Display, Local 510

Sprinkler Fitters, Local 483

Teamsters, Local 853

United Association of Journeymen and Apprentices Fitting Industry, Underground Utility & Landscape, Local 355

United Association of Steamfitters, Ironworkers City and the RDA Council of Pipefitters, Plumbers, & Gas California Fitters, Local 342

Council No. 16 Northern California

International Union of Laborers
Painters & Allied Trades (On behalf of Painters, Local 3; Carpet & Linoleum Layers, Local 12; Glass Workers, Local 169; Auto& Marine Painters, Local 1176)

Northern California Carpenters
Regional Council (on behalf of Carpenters, Local 713; Carpenters, Local 2236; Lathers, Local 68L; Millwrights, Local 102; Pile Drivers, Local 34)

AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project (“Project”), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Project’s Community Workforce Agreement ("Agreement"), a copy of which was received and is acknowledged, hereby:

1. Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement.

2. Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

3. Agrees to secure from any Contractor (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, and from any successors, a duly executed Agreement to be bound in form identical to this document.

4. Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft agreement contained in Schedule "A" of Agreement.

Date: _____

Company Name: _____

Name of Prime Contractor or Higher Level Subcontractor:

_____

Name of Project: _____

Signature:_____

Print Name: _____

Title: _____

Contractor’s License #: _____

Motor Carrier Permit (CA) #: _____