DESCRIPTION OF WORK FOR INFORMAL BID PROPOSAL

RE: New Traditions Elementary School – Fence Replacement: Phase 1A
2049 Grove Street, San Francisco, CA 94117

SCOPE OF WORK:
1. Remove existing vegetation, upper existing wood members, existing wood siding, and the rest of the existing wood members.
2. Coordinate temporary fence installation with Phase 1B fence installation contractor.

ADDITIONAL NOTES:
1. All equipment and clean-up required by contractor.
2. Contractor must be certified in working with Lead & Asbestos.
   See attached Procedures as outlined in:
   a. Section 0035 – Existing Hazardous Materials Conditions
   b. Section 01011 – Summary of Hazardous Materials and Work (with Appendix A-L)
   c. Section 02390 – Lead Impacted Construction and Abatement
3. A work plan and schedule must be presented after selection. Dates and times for work must be coordinated and approved with each SFUSD Project Manager. District HazMat contact must also approve work plan.
4. Prevailing wages are required on all SFUSD projects and are required at the request of the SFUSD.

HAZARDOUS MATERIAL: Training Certificate/Basic Awareness/Training
Respiratory protection is required at all times. To waive this requirement, Personal Air Sampling by SFUSD Asbestos Control Program to establish negative exposure assessment for Asbestos and Lead. To assist with this OSHA requirements, this test will be performed by SFUSD personnel. Proper work procedures and negative test results will allow all in-kind work without respiratory protection for up to one year; baring any verified complaints.
SFUSD Contact: Rafael Picazo (415)241-6226/ext 3241

DATE PROPOSAL DUE:
Wednesday, June 26, 2013 at 3:00pm
Proposals can be received via hand, email, or fax.

CONTACT:
Ryan Henderson
SFUSD Sr. Project Manager
Proposition A – 2003/2006/2011 Bond Program

hendersonr@sfusd.edu
P 415.241.6152/ext1559
F 415.241.6635
135 Van Ness Avenue, Room 203
San Francisco, CA 94102
CONSULTANT AGREEMENT PROPOSAL # ______

DISTRICT SITE:  New Traditions Fence Replacement Project: Phase 1A  2049 Grove St.  San Francisco, CA

PROPOSALS WILL BE OPENED AT Wednesday, June 26, 2013 at 3:00 PM
(If bidders are present at this time.)

At: Facilities Development and Management
135 Van Ness Avenue, Room 209
San Francisco, CA 94102

DELIVER THIS PROPOSAL, properly executed, to Facilities Development and Management, prior to opening

Upon receipt of a "Notice to Proceed" to the selected contractor, the undersigned, hereby promises and agrees to
furnish all labor and material applicable to this proposal within the time specified, in the manner and form and at
the prices stated on the attached proposal, which is incorporated and made a part of this Agreement, in strict
accordance with the specifications, proposal and general conditions, all of which are made a part of the
Construction Agreement Proposal.

By submitting a bid for Work for this Project, the Bidder and its Subcontractors agree to be
bound by the terms of the Project Labor Agreement for Work on the Project.

ACKNOWLEDGE RECEIPT OF ADDENDA NOS. ___________________________.

COMPANY NAME        DATE
__________________   _______________________
Principal

SIGNATURE OF BIDDER   TITLE OF BIDDER
__________________   _______________________

BUSINESS ADDRESS     TELEPHONE NUMBER
__________________   _______________________

CITY, STATE, ZIP     FAX NUMBER
__________________   _______________________

If a corporation, incorporated in the State of ___________.

GENERAL CONDITIONS, INSTRUCTIONS AND INFORMATION FOR BIDDERS

See also the Requirements attached as Attachment A hereto and incorporated herein by reference.

1. The contractor must list any subcontractors doing work amounting to over one half of 1% of total bid,
including each subcontractor's type of work. Contractor should also include subcontractor's bid price. The San
Francisco Unified School District Board of Education encourages participation by minority contractors as both
prime contractors and subcontractor. Contractor is requested to fill in the ethnicity and gender of the ownership
of his/her firm and to fill in the ethnicity and gender of all subcontractors or sub-consultants on the
prime/subcontractors form.

2. The contract documents may include an addendum or addenda and it will be the responsibility of each
bidder to call Facilities Development and Management prior to the bid opening date to confirm whether addenda
have been issued.

3. The contractor shall be paid as per attached bid which is incorporated herein and made a part of this
Agreement. Requests for compensation shall be monthly or upon completion of the work, complete with a
breakdown of charges and receipts as applicable. Payments shall be made in a reasonable time upon approval that services and requirements have been rendered in a satisfactory manner.

4. In preparing the Consultant Agreement Proposal, the contractor must sign as an original and acknowledge all addendum.

5. Upon approval of selected proposal, the selected contractor must furnish the following original certificate of insurance and endorsement by an insurance company who has obtained a Certificate of Authority (Admitted) from the California Department of Insurance or acceptable to the District before being awarded the contract:

   a) Certificates of Insurance: (Admitted in CA)
      1. Public Liability Insurance, including Comprehensive General Liability ($1,000,000)
      2. Worker's Compensation ($1,000,000)
      3. Automobile Liability ($1,000,000)
      4. Professional Liability (if applicable) ($1,000,000)

   b) Endorsement: A separate endorsement on Form CG 20 10 11 85.

San Francisco Unified School District, its Board, Officers and employees should be named as additional insured on General Liability and Automobile Liability by Endorsement, to be provided with Certificate, specifying the San Francisco Unified School District is noticed by the Company and entitled to a 30-day written mailed notice.

6. The contractor shall defend, indemnify and hold harmless the District, its Board, officers, and employees from and against all claims, costs, lawsuits and damages arising out of the negligent acts, errors and omissions of the consultant to all persons, corporations and partnerships including but not limited to employees of contractor and heirs of employees of consultant and employees and heirs of employees of District arising out of and in the course of the performance of this Agreement. This liability shall not lie in the instances where the damages are caused by the sole negligence or intentional tort of the District or its employees.

7. It is expressly understood and agreed that in the event the contractor or the District fails to perform its obligations under this Agreement, this Agreement shall be terminated and all the contractor’s/District's rights hereunder ended. Termination shall be upon ten (10) days written notice to the defaulting party, in which no work will be undertaken after the date of receipt of the notice. In the event this Agreement is terminated by the District pursuant to this paragraph, the contractor shall be paid for services performed up to the date of the termination.

   It is further understood and agreed that the District may terminate this Agreement for the District's convenience and without cause at any time by giving the contractor thirty (30) days written notice of such termination. In such an instance, the contractor shall be entitled to compensation for services performed up to the effective date of termination.

   Upon receipt of written notice that this Agreement is terminated, the contractor will submit an invoice to the District for an amount which represents the value of services actually performed to the date of termination for which the contractor has not previously been compensated. Upon approval and payment of this invoice by the District, the District shall be under no further obligation to the contractor monetarily or otherwise.
8. Failure or refusal of the contractor to perform or do any act herein required shall constitute a default. In the event of any default, in addition to any other remedy available to the District, this contract may be terminated by the District. Such termination shall not waive any other legal remedies available to the District.

9. The contractor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which he performs the service required of him under the terms of this Agreement. The contractor shall be liable for any act or acts of his own, or his agents or employees, and nothing contained herein shall be construed as creating the relationship of employer and employee between the District and the contractor or their agents and employees.

10. This Agreement may be amended by the parties in writing by mutual consent. Changes, including any increase or decrease in the amount of the contractor's compensation, shall only be effective upon the execution of a duly authorized written amendment to this Agreement.

11. This Agreement shall be deemed to be made in, and shall be construed in accordance with the laws of the State of California.

12. The contractor shall not assign or delegate any portion of this contract without the written consent of the owner, but such consent does not relieve the contractor of its responsibilities under the contract.

13. Contractor understands the following and certifies that it does not know of any facts which constitutes a violation:
   a) Contractor hereby certifies that no current Board member or employee of the San Francisco Unified School District, and no one who has been a Board member or who has been employed by the San Francisco Unified School District within the past two years, has participated in bidding, selling or promoting this contract. Furthermore, contractor certifies that no such current or former Board member or employee has an ownership interest in this contract, nor shall any such current or former Board member or employee derive any compensation, directly or indirectly, from this contract. Contractor understands that any violation of this provision of the contract shall make the agreement voidable by the District.
   b) Government Code of the State of California, Section 87100 et. seq. Public officials; state and local; financial interest: No public official at any level of state or local government shall make, participate in making or in any way attempt to use his official position to influence a governmental decision in which he knows or has reason to know he has a financial interest.

14. In the event that either party shall cease conducting business in the normal course, become insolvent, make a general assignment for the benefit of creditors, suffer or permit the appointment of a receiver for its business or assets or shall avail itself of, or become subject to, any preceding under the Federal Bankruptcy Act or any other statute of any state relating to insolvency or the protection of rights of creditors, then at option of the other party, this Agreement shall terminate and be of no further force and effect, and any property or rights of such other party, tangible or intangible, shall forthwith be returned to it.

15. If any term or provision of this Construction Agreement Proposal shall be found illegal or unenforceable, then, notwithstanding, this Agreement shall remain in full force and effect and such term or provision shall be deemed stricken.
16. The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

17. Any interest of the contractor in studies, reports, memoranda, computation sheets or other documents prepared by the contractor in connection with services to be performed under this Agreement shall become the property of and will be transmitted to the District. However, the contractor may retain and use copies for reference and as documentation of its experience and capabilities.

18. Contractor agrees that it shall not discriminate on the basis of sex, race, religious reed, national origin, age, marital status, sexual orientation, gender identity, AIDS/ARC/HIV status, or disability, in its performance under this Agreement.

19. Contractor agrees to comply with Education Code, Section 45125.1, et. Seq. concerning fingerprinting employees and conducting criminal background checks through the California Department of Justice. The District is extending this requirement to all types of contractors if they are deemed to have more than limited contact with District students. The contractor shall assume all expenses associated with these background checks and shall immediately remove any employee or agent from District property who has been arrested or convicted of any serious or violent felony, as defined by the California Penal Code Sections 667.5 and 1192.7.

20. The District shall be the final arbiter of what constitutes “limited contact.” The District may also, in its sole discretion, waive these provisions if it determines that emergency or exceptional circumstances exist which threaten student or staff safety if the work is delayed pending clearance. The contractor’s violation of this section shall constitute a default under Section 12 herein.

21. Bonds required: Bid 10% of bids over $15,000; Performance & Payment 100% of bids over $25,000.

IDENTIFICATION LISTING for
PRIME CONTRACTOR AND SUBCONTRACTOR
Prime Contractor
In accordance with Instructions to Bidders, Sections 8 and 9, each Bidder shall complete and submit identification information listed below with his/her Bid Proposal:

<table>
<thead>
<tr>
<th>NAME of PRIME CONTRACTOR</th>
<th>ADDRESS of BUSINESS</th>
<th>LICENSE Number</th>
<th>ETHNICITY of Owner</th>
<th>GENDER of Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subcontractor or Supplier
Each Bidder must complete this form and submit with Bid Proposal all subcontractors doing work amounting to over one-half (1/2) of one percent (1%) of total bid, to include location of the place of business and the sub-consultant’s, contractor’s license number, as per Public Contract Code 4104 (a). All other information required on the form should be filled out. If there are no subcontractors or suppliers, state “NONE”.

<table>
<thead>
<tr>
<th>NAME and ADDRESS of SUBCONTRACTOR and SUPPLIER</th>
<th>TRADE or TYPE of WORK</th>
<th>VALUE ($ Amount)</th>
<th>LICENSE Number</th>
<th>ETHNICITY of Owner</th>
<th>GENDER of Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Supplier?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Subcontractor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ethnicity Codes: AFAM = African American; ARAM = Arab American; ASIAN = Asian or Pacific Islander; FEM = Female; HISP = Hispanic; NON = Non Minority

Gender Codes: M = Male; F = Female

BID SHEET FOR CONSULTANT AGREEMENT PROPOSAL
(Note: This is an informal bid. If your quote is over $15,000, do not submit your bid using this form as it will not be accepted.)

for an amount not to exceed $______________

per proposal dated ________________ (see attached)

___________________________
David Golding, Chief Facilities Officer

___________________________
Project Manager

_________________________________________  Signature of Bidder

_________________________________________
Company

Title of Bidder

San Francisco Unified School District
Consultant/Independent Contractor Agreement
Criminal Background Check

<table>
<thead>
<tr>
<th>Name of Independent Consultant/Contractor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services performing under the Agreement:</td>
</tr>
<tr>
<td>Schools/Locations where services are being performed:</td>
</tr>
<tr>
<td>Total amount to be paid by the District under this Agreement:</td>
</tr>
<tr>
<td>Term of Agreement:</td>
</tr>
</tbody>
</table>
Check the applicable box and fill in any blanks.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>X</td>
<td>I certify that none of my employees will have more than limited contact (as defined by the District) with District students during the term of the Agreement</td>
</tr>
<tr>
<td>2A.</td>
<td></td>
<td>The following employees will have more than limited contact (as defined by the District) with District students during the term of the Agreement (attach and sign additional pages, as needed):</td>
</tr>
<tr>
<td>2B.</td>
<td></td>
<td>I certify that the employees noted in 2A above have been fingerprinted under procedures established by the California Department of Justice, and the results of those fingerprints reveal that none of these employees have been arrested or convicted of a serious or violent felony, as defined by the California Penal Code.</td>
</tr>
</tbody>
</table>

Certification by Contractor/Consultant
"I certify that the information provided herein is true and accurate. I further acknowledge that during the term of my Agreement with the District, if I learn of additional information which differs from the responses provided above, I promise to forward this additional information to the District immediately."

<table>
<thead>
<tr>
<th>Consultant's Signature</th>
<th>Date</th>
<th>Administrator's Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>David Goldin, Chief Facilities Officer</td>
<td></td>
</tr>
</tbody>
</table>

Printed name of Consultant
Printed name of Administrator
New Traditions E.S. Fence Replacement - Phase 1A
PHOTO 01 - REPAIR AREA "A" Fence leaning 20 deg.

PHOTO 02 - REPAIR AREA "A" Separation at conc. wall
PHOTO 05 - 2001 Grove: Neighbor of Repair Area "A"

PHOTO 06 - REPAIR AREA "A" Top heavy from ivy
(E) WALL ELEVATION

(N) WALL ELEVATION

(E) CONC WALL

TOP OF CONC

12'-0" ±

(E) WOOD FENCE WITH SIDING TO BE REMOVED

(E) 6X4 TO BE REMOVED

TOP OF CONC

(E) CHAIN LINK FENCE TO BE REMOVED

(E) GRADE

1
SK3

8'0" ± MAX

3" STD PIPE, TYP

1 1/2" STD PIPE, TYP

2
SK3

(N) CHAIN LINK FENCE

SK4

SK5

WALL ELEVATIONS

SOHA

48 Collins P. Kelly Street
San Francisco, CA 94107

415 969 9900

ENGINEERS

SOHA JOB NUMBER: 130063.00

DRAWING NO.

TITLE OF SHEET
SAN FRANCISCO

UNIFIED SCHOOL DISTRICT

NEW TRADITIONS

ELEMENTARY SCHOOL

FENCE REPLACEMENT

2640 GROVE STREET,

SAN FRANCISCO, CA 94117

DESIGNED:

SUB SHEET NO.

SK3

T,status

TECH. REVIEW: My

DATE: MAY 29, 2013

DRAWING NO.

PMS/PWG NO.

SHEET

3 of 8
APPENDIX A
HAZARDOUS MATERIAL SPECIFICATIONS

Fence Replacement Project – Phase I
New Traditions Elementary School
SFUSD Project 11056
San Francisco Unified School District
2049 Grove Street
San Francisco, California 94117

Prepared by:

Millennium Consulting Associates
A MECA Consulting, Inc. Company
620 Contra Costa Boulevard, Suite 102
Pleasant Hill, CA 94523
(925) 808-6700

June 4, 2013

Millennium Job No. 19001.2088
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>00335</td>
<td>Existing Hazardous Materials Conditions</td>
</tr>
<tr>
<td>01011</td>
<td>Summary of Hazardous Materials and Work (with Appendix A-L)*</td>
</tr>
<tr>
<td>02090</td>
<td>Lead-impacted Construction and Abatement</td>
</tr>
</tbody>
</table>

* Hazmat Drawing HM-1 included in Section 01011 as Appendix K
* Section 01011 includes Appendices A through L

END OF TABLE OF CONTENTS
SECTION 00335
EXISTING HAZARDOUS MATERIALS CONDITIONS

PART 1 – GENERAL

1.01 SUMMARY

A. This section provides a list of known and assumed hazardous materials that may be impacted during renovation, demolition, repair, custodial and/or maintenance activities. The hazardous materials information has been provided through existing surveys conducted by San Francisco Unified School District (District) and the District’s environmental consultants.

B. Some materials and items found at the Site either contain or may contain materials known to the State of California to be either hazardous, carcinogenic or reproductive toxins. These include but are not limited to asbestos, lead, PCB’s, silica, and other materials.

C. The Contractor shall hold the District and its consultants harmless for claims, damages, losses, and expenses, including attorney's fees arising out of the Contractor’s hazardous materials related work including releases from any incidental disturbance of existing hazardous materials, on-site or off site spills of hazardous materials, or from non-compliance with the Contract Documents and regulatory requirements.

1.02 HAZARD COMMUNICATION

A. The District may have conducted previous hazardous materials abatement projects at the site. The hazardous materials abatement oversight information is available for review by appointment only through the District’s Asbestos Control Program at (415) 241-6226.

B. Copies of previous hazardous materials report(s) and the AHERA Management Plan for the site are available for review by appointment only through the District’s Asbestos Control Program at (415) 241-6226.

C. Asbestos Hazards at New Traditions Elementary School

1. Asbestos has been identified at concentrations greater than one percent (>1%) in the following materials on the exterior of existing buildings and structures:

   a. Transite panels (Chrysotile 20%) located in the awning of the Bungalow areas; total 600 sq. ft.
   b. Skim coat on exterior columns near C-91. (according to data dated 6/7/02) (Chrysotile 3%); total 300 sq. ft.

2. The following exterior building materials components have not been sampled and shall be assumed to contain asbestos at concentrations greater than 1% (>1%) (unless
sampled prior to immediate removal and found not to contain asbestos or found to contain less than 1% [<1% as asbestos):

a. None

3. Asbestos has been identified at concentrations less than one percent (<1%) in the following exterior building materials and components:

a. Exterior window putty located in the Bungalow areas

4. The following sampled suspect materials had results that reported NO asbestos detected by PLM analysis:

a. Exterior stucco/concrete of the main building
b. Exterior stucco/concrete retaining walls
c. Exterior paint coating systems on main building
d. Exterior paint coating system on perimeter retaining walls
e. Exterior paint coating system on perimeter wood and metal fence components

5. Exterior Areas and/or Spaces known or presumed to be contaminated with asbestos containing materials, dust, and debris include:

a. None

6. Areas and/or Spaces where asbestos abatement was conducted include:

a. Not Applicable to Fence Replacement Project, Phase I

D. Lead Hazards at New Traditions Elementary School

1. Lead has been detected in individual painted surfaces and surface coatings in concentrations greater than 5,000 parts per million (ppm) [>5,000 ppm] lead or 1.0 milligram of lead per square centimeter (>1.0 mg/cm²). Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following:

a. INTERIOR

1) Scheduled work is not anticipated to disturb interior building surfaces

b. EXTERIOR

1) Beige/cream paint on exterior wood perimeter playground fencing/panels (3.44 mg/cm²)
2) Bungalow areas; exterior beige/cream paint on wood wall shingles, exterior blue paint on Bungalow benches (4.39 - 5.0 mg/cm²)
3) Playground areas; turquoise and yellow paint on concrete (1.03- 5.0 mg/cm²)
2. Lead has been identified in individual painted surfaces and surface coatings in concentration less than 5,000 ppm (<5,000 ppm) lead or 1.0 mg/cm². Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following surfaces:

   a. INTERIOR
      
      1) Not Applicable to Fence Replacement Project, Phase I

   b. Exterior
      
      1) Beige/cream paint on stucco/ concrete of the exterior of the main building
         (0-0.02 mg/cm²)
      2) Beige/cream paint on concrete on exterior painted retaining walls (0 – 02 mg/cm²))

3. The Contractor shall assume that all paints and surface coatings contain detectable quantities of lead requiring compliance with CAL/OSHA lead regulation in the absence of objective data to the contrary. Additionally, the Contractor shall assume that, at a minimum, lead is “present” in all of these materials at levels that have a potential, until proven otherwise, to create a lead hazard.

4. The District has not verified that any paints, coatings, dusts, or materials are “lead free” or below detectable limits. The Contractor shall treat all paints, coatings, dusts or materials as having a reportable lead concentration requiring dust controls and personal protective procedures for construction activities in conformance with the Cal/OSHA Lead Construction Standard, 8 CCR 1532.1 lead. Any paint, varnish, or other coating or finish not listed above shall be considered to be lead-based paint with lead levels at or exceeding 5000 ppm lead or 1.0 mg/cm² for this contract.

5. In addition to lead-containing paints and coatings, the Contractor shall assume that lead is present at detectable levels in existing plumbing components and solders, glazing compounds, roof jacks, and surficial soils.

E. Metallic Mercury and mercury compounds are present at this site in fluorescent lighting tubes, high intensity discharge lamps, mercury switches and mercury thermostats. All demolition and disposal of these items shall be conducted in accordance with applicable safety and environmental regulation and the requirements of the Contract Documents [Not applicable to project].

F. Polychlorinated biphenyl (PCB)-containing fluorescent lighting ballasts. This site DOES contain fluorescent lighting fixtures manufactured or installed prior to 1979. All fixtures known or presumed to have been installed prior to 1979 shall be considered to contain PCB ballasts unless otherwise noted in the contract documents. Removal, handling and disposal of PCB ballasts is subject to applicable regulation and requirements of the Contract Documents [Not applicable to Project].
G. No visible mold was observed at the time of the survey. However, if visible mold is discovered during demolition, the affected area must be contained and controlled by trained and licensed restoration professionals prior to any continuance of demolition or new work. Remediation of the affected area may also contain asbestos and lead hazards [Not applicable to Project].

H. Crystalline Silica is presumed present in all concrete, plaster, ceramic tile, grouts, and other cementitious materials at this site as well as soils. Worker protection and control of air dust during cutting, drilling, demolition and other construction operations is the responsibility of the Contractor.

I. The Contractor shall take into consideration all existing known and presumed hazardous materials that may be disturbed or otherwise impacted by the Work of this project. All work of this project that disturbs or otherwise impacts hazardous material shall be considered included in the Work of the project and shall be conducted in accordance with all applicable regulations and the Contract Documents. The Contractor shall use appropriately trained and qualified personnel to conduct all hazardous material related work and shall adhere to the requirements for handling, removal, clean-up, and disposal in accordance with the Contract Documents and all applicable Cal/OSHA, Cal/EPA, Department of Health Services (DHS), and Bay Area Air Quality Management District (BAAQMD) regulations.

1.03 RELATED DOCUMENTS

A. Contract Documents including hazardous material-related plans and specifications and all other project construction documents. Refer to Section 01011 Summary of Work, Article 1.04 Related Documents for a more detailed listing.

1.04 USE OF HAZARDOUS MATERIALS INFORMATION

A. Hazardous material information identified herein was obtained for the use of the District and its Consultants for planning and design stages of the Project. The above mentioned survey data and reports are not, as a whole, part of the Contract Documents, but can be relied upon by the Contractor to characterize general site conditions, although quantities, friability and other factors may have changed or altered since the published report dates.

B. All statements, findings and interpretations in the above mentioned reports are those of the Survey or Environmental Consultant. The District makes no representation, either expressed or implied, as to the completeness or adequacy of the above mentioned reports. Bidders are advised that the limited testing of components allows for generalizations in describing the extent of hazardous materials. Contractors may visit the site and investigate to identify locations of hazardous materials identified herein. Specific components or materials, should be checked against the referenced survey reports and the Contract Documents, or be tested at affected locations, prior to disturbance of such components.
PART 2 – PRODUCTS:       NOT USED

PART 3 – EXECUTION:     NOT USED

END OF SECTION
SECTION 01011
SUMMARY OF HAZARDOUS MATERIALS WORK

1.01 GENERAL

A. The work required to be performed by the Contractor comprises

PERIMETER FENCE DEMOLITION AND REPLACEMENT – PHASE I
SAN FRANCISCO UNIFIED SCHOOL DISTRICT
NEW TRADITIONS ELEMENTARY SCHOOL
2049 GROVE STREET
SAN FRANCISCO, CA 94117

EPA I.D. #: CAL (To be provided at time of project submittals)

in conformity with plans and specifications herein after identified; including furnishing all materials, labor, tools, equipment, and services necessary there for and incidental there to, complete and ready for use, except as herein after otherwise provided.

B. The demolition of the existing perimeter fence (Phase I limits) may require removal, clean-up, decontamination, and proper disposal of the following materials: wood and metal fence components with attached lead-based paint (LBP) coatings; loose and flaky LBP coatings on wood and metal fence components and delaminated or deteriorated paint coating materials (paint chips and flakes) from the fence located on nearby horizontal surfaces including exposed soils and paved surfaces. Hazardous material and non-hazardous removal may be required in areas of work indicated on the project drawings and where can reasonably inferred to be required to support the New Traditions ES Fence Replacement – Phase I.

C. The Contractor and its associated Subcontractors shall take into consideration all identified and presumed hazardous materials present that will be impacted by the work of this Project. At minimum, the Contractor’s bid shall take into consideration the information provided in Section 00335, hazardous materials drawings and specifications, all contract documents, and the information resulting from Contractor’s own onsite investigation and review of site conditions.

D. Hazardous material documents are not to be considered stand-alone documents. In addition to the identified hazardous removal work shown on drawings and/or described in the scope of work, hazardous material demolition shall include all incidental removal of hazardous materials required to complete the Work associated with the fence demolition and replacement shown on the project drawings. Coordinate all hazardous materials related work with all other work of the Contract as indicated or inferred in the Contract Documents.

E. The Contractor shall carefully schedule and coordinate all phases of hazardous materials related work to ensure that unprotected personnel are not exposed to hazardous substances. This includes the coordination of all pre-demolition, demolition, alteration, repair, renovation, and new construction work.
F. All submittals as required by the project specifications must be approved prior to the start of any hazardous materials related work. The Contractor shall review Specification Section 02090 and Article 1.06 of this section for specific submittal requirements.

1.02 HAZARDOUS COMMUNICATION

A. Hazardous materials at this site that could become disturbed by work to be performed under Fence Demolition and Replacement Project include: lead-based paint (LBP) and lead-based coatings on painted fence components located immediately adjacent to the work area that are not scheduled for demolition. These materials will impact demolition and renovation activities. The Contractor shall review Specification Section 00335 – “Existing Hazardous Materials Conditions” for known and assumed hazardous materials that are to be impacted by the project.

1.03 SCOPE OF WORK

A. The Contractor(s) work includes the removal of hazardous materials to the extent specified and/or necessary prior to other construction operations to be conducted as part of the Fence Replacement Project as shown on the project drawings. The Contractor is responsible for locating, accessing and removing all hazardous materials in areas of project work including materials and assemblies scheduled for removal and any necessary removal coincidental to the completion of the work of the project. All removal shall be to the extent necessary to properly complete the work of the project. This project may require close coordination with other trades and work on this project. The Contractor’s hazardous materials scope of work includes but is not limited to the following:

1. Preparing and posting required notifications including CAL/OSHA, City of San Francisco DBI, and applicable SFUSD notifications (See Notifications in appendix to this specification).

2. Removal and disposal of loose and flaky LBP on exposed wood and metal fence components scheduled for demolition. Approximate demolition limits are indicated on Hazardous Material Drawing HM-1 (attached as an Appendix to this specification)

3. Removal and disposal of loose flakes and chips of LBP on exposed horizontal surfaces and exposed soil located immediately below or adjacent to the work area. Approximate demolition limits are indicated on Hazardous Material Drawing HM-1 (attached as an Appendix to this specification)

4. Removal and disposal of wood and metal components with LBP.

5. Making penetrations or installing fasteners into exterior stucco and/or concrete surfaces on the exterior retaining wall surfaces coated with lead-containing paint (LCP) and/or lead-containing surface coatings to install new fence supports (where required). Limits of work are indicated on HM-1.
6. Where fence demolition work will generate a lead-containing waste (wood, paint chips) or waste soils that will require offsite disposal that has not already been characterized, contractor shall perform necessary waste profiling to determine appropriate method of disposal. Note: Wood fence components have been tested and have been determined to a RCRA Hazardous Waste for lead. Contractor shall prepare and submit a waste characterization work plan that complies with the submittal requirements identified in Section 1.06 of these specifications.

For bidding purposes, contractor shall base disposal of the painted wood fence components, lead containing debris (paint chips and/or soil) as RCRA regulated hazardous waste (lead). Contractor shall base disposal of painted wood components as a RCRA hazardous waste for lead. Contractor shall base disposal of metal components as a RCRA regulated hazardous waste for lead where the metal products are not being recycled. Contractor shall provide unit prices for disposal as a RCRA Hazardous Waste, Non-RCRA California-regulated hazardous waste and for non-hazardous lead containing waste.

B. The Contractor shall refer to the Hazardous Materials Abatement Drawings, Architectural/structural Drawings, other project drawings and the Contract Documents for approximate locations and extent of hazardous materials related work, project phasing, bid alternates, and other requirements for completion of the Work.

C. All hazardous materials related work shall be conducted in accordance with applicable federal, state, local regulations and the Contract Documents. The most stringent requirements shall take precedence.

1. All lead-related work shall be conducted in accordance with Section 02090 – Lead Impacted Construction & Abatement, CAL/OSHA Lead Construction Standard and the Federal Renovate, Repair and Paint Regulation.

2. All waste characterization shall be conducted in accordance with California and Federal Hazardous Waste Control Laws including characterization for ignitable, reactive, corrosive and toxic characteristics of a hazardous waste and waste streams designated as special wastes by the California Regional Water Quality Control Board, Cal EPA (Department of Toxic Substances Control) and California Integrated Waste Management Board.

D. The Contractor shall ensure that any hazardous materials contamination resulting from any construction activities on this site is cleaned up prior to each room or work area being turned back over to the District. The same hazardous materials clearance methods and standards shall be used to determine adequacy and completeness of the Contractor’s final clean-up operation prior to returning each room or work area to the District.

E. The Contractor shall ensure that their Supervisor and EPA certified Lead Renovator on this project speaks fluent English, and is present on the project during all lead-related activities.
F. Hazardous materials related work entails adhering to special requirements for the protection of workers, occupants, the public and the environment, and requires consideration of, and close coordination with, work specified elsewhere for this site.

1.04 RELATED DOCUMENTS

A. Hazardous Materials Related Documents


2. Section 02090 – Lead-Impacted Construction & Abatement.

3. Hazardous Materials Abatement Drawing(s):
   a. HM-1 Drawing (Appendix K)

B. Contract Documents for the New Traditions ES Fence Replacement – Phase I Project under 2006 Proposition A Bond Measure Program prepared by SFUSD.

1.05 DEFINITIONS

A. Definitions Applicable to All Hazardous Materials Specification Sections:

1. Abatement: Special methods and procedures to control or prevent hazardous releases during removal, repair, encapsulation, and enclosure of hazardous materials. This definition is not meant to imply intent to reduce or eliminate an existing hazard unless so stated in the project work scope.

2. Air Filtration Equipment: A portable air re-circulation system equipped with HEPA filtration and used to cleanse air of particulate matter within an abatement Work Area or containment. Air filtration equipment is essentially the same as differential pressure equipment except it re-circulates air instead of exhausting it.

3. Airlock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area. Typically consisting of chamber with two curtained doorways at least 3 feet apart. Note: See Curtained Doorway.

4. Air Monitoring: The process of measuring the airborne levels of one or more air contaminants, such as asbestos, lead, by collecting a specific volume of air in a stated period of time. “Personal” air monitoring is used to determine compliance with exposure limits; “general area” and “perimeter” air samples are used to evaluate the effectiveness of hazard controls; “background” air monitoring is used to monitor initial conditions prior to disturbance or abatement; and “clearance” air is used for comparison with air quality standards established for assessing status and acceptability of work completion.

5. Amended Water: Water to which a surfactant (chemical wetting agent has been added to improve penetration and wetting).
6. Authorized Visitor: The District’s Project team member, the District’s Representative, and any Representative of a regulatory or other agency having jurisdiction over the project.

7. CDPH – “CDPH” means the California Department of Public Health

8. Certified Firm – A certified firms means a company, partnership, corporation, sole proprietorship or individual doing business, association, other business entity; a Federal, State, or local government agency; or a non profit organization that has been certified by the EPA to perform work under 40 CFR 745 that results in disturbance of paint surfaces.

9. Certified Renovator - A certified renovator is a renovator who has successfully completed a renovator course accredited by EPA or an EPA-authorized State or Tribal Program.

10. Competent Person: One who is capable of identifying existing asbestos, lead or other hazards in the workplace and selecting the appropriate control strategy for worker exposure, who has the authority to take prompt corrective measures to eliminate them. All work performed in regulated work areas must be supervised by a “Competent Person” specially trained in accordance to regulation.

11. Containment or Containment System: The system of physical barriers and protective coverings (e.g. plastic sheeting) used to enclose or “contain” the hazardous materials within a Regulated Area (or Work Area) and thereby prevent personnel exposure and environmental contamination outside the Regulated Area. Includes simple mini-containments to full HEPA exhausted negative pressure enclosure (NPE) with contiguous worker and/or equipment Decontamination Enclosure System(s). Also see related Mini-containment below and Negative Pressure Enclosure definitions.

12. Critical Barrier: A unit of temporary construction of air tight and impermeable barrier, which provides the only separation between an asbestos or other hazardous material Work Area and an adjacent, potentially occupied area.

13. Curtained Doorway – A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms. Typically constructed by placing two overlapping sheet of plastic sheeting over a existing or temporary doorway, securing each along the top of the doorway, and securing the outer vertical edge of each of the sheets along the adjacent vertical sides of the doorway.

14. Decontamination Enclosure System: A series of connected rooms, with airtight doorways between any two adjacent rooms, for the decontamination of workers and of materials and equipment. A decontamination enclosure system always contains at least one airlock.
15. **Differential Pressure Equipment**: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas. Also referred to as “HEPA units” or “HOGS”.

16. **District**: The San Francisco Unified School District (SFUSD) and its designated representatives (District’s Representatives) for this project. For the hazardous materials-related work of this project, the District’s Representatives include the District’s Project Manager, Construction Manager, Inspector of Record (Construction Inspector) and other persons designated or appointed to represent the District in all matters concerning the construction of the Project.

17. **Disturbance**: Contact or activities, which disrupt the matrix of a hazardous material, crumble or pulverize a hazardous material, or otherwise cause airborne dust and/or visible debris containing hazardous constituents to be released. Typically applied to asbestos or lead related work.

18. **Environmental Consultant** – firm and its representatives retained to provide environmental consulting services for the District including surveys, project design, bid support, construction technical support and construction compliance observation and monitoring services. Also known as the District’s Environmental Consultant.

19. **Equipment Decontamination Enclosure**: That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment, typically consisting of a wet sponge area, a washroom and a holding area.

20. **Exposure Assessment**: Sampling of the concentrations asbestos, lead or other airborne contaminate within the breathing zone of worker during representative work operations and shifts to determine airborne exposure levels as required by regulation.

21. **Fixed Object** – A unit of equipment, furniture or other features in the Work area that cannot be removed from the Work Area. Fixed Objects typically require protection from contamination during abatement or related work that disturbs asbestos, lead or other hazardous materials.

22. **HEPA Filter**: High Efficiency particulate air filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. Required filtration system for vacuums, local exhaust systems for asbestos, lead and other specified hazardous material work. For respirator cartridges, the equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters where HEPA filtration is required (e.g. asbestos, lead, cadmium, etc.)

23. **HEPA Vacuum Equipment**: Vacuums with a HEPA (UL 586 labeled) filter system.
24. Mini-containment or Mini-enclosure: A small temporary enclosure constructed of impervious material (e.g. plastic sheeting) with at least one air lock to permit ingress and egress. The entire Work Area is enclosed or contained within this system to prevent the release of contamination outside the work area.

25. Minor Repair and Maintenance Activities: Minor repair and maintenance activities are activities, including minor heating, ventilation or air conditioning work, electrical work, and plumbing, that disrupt 6 square feet or less of painted surface per room for interior activities or 20 square feet or less of painted surface for exterior activities where none of the work practices prohibited or restricted by 40 CFR 745.85(a)(3) are used and the work does not involve window replacement or demolition of painted surfaces. When removing painted components, or portions of painted components, the entire surface area removed is the amount of painted surface disturbed. Jobs, other than emergency renovations, performed in the same room within the same 30 days must be considered the same job for purposes of determining whether the job is a minor repair and maintenance activity.

26. Negative Exposure Assessment (NEA): Air sampling of representative operations to demonstrate employee exposures are below the permissible exposure limits for similar operations undertaken using similar method and procedure, production rates, by similarly trained and skilled employees. Often conducted for limited maintenance and operations type work involving asbestos and/or lead. To be accepted as valid, the NEA must have been conducted within last 12 months.

27. Pamphlet: Pamphlet means the EPA pamphlet titled, “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools,” developed under CFR Section 406(b) of TSCA, or any State or Tribal pamphlet approved by EPA pursuant to 40 CFR 745.326 that is developed for the same purpose. This includes reproductions of the pamphlet when copied in full and without revision or deletion of material from the pamphlet (except for the addition of State or local sources of information). Before December 22, 2008, the term “pamphlet” also means any pamphlet developed by EPA under Section 406(a) of TSCA or any State or Tribal pamphlet approved by EPA pursuant to 40 CFR 745.326.

28. Regulated Area: A controlled access work area where asbestos, lead, or other hazardous materials are being removed or otherwise disturbed. Access is limited to specially trained and protected personnel. The perimeter of the regulated area is established to preclude airborne hazards to personnel or environmental contamination outside the Regulated Area. Minimum controls involve signage and barrier tape but controls can range all of the way up to full negative pressure containment with HEPA filtration.

29. Renovation: Renovation means the modification of any existing structure, or portion thereof, that results in the disturbance of painted surfaces, unless that activity is performed as part of an abatement as defined by 40 CFR 745.223. The term renovation includes (but is not limited to): The removal, modification or repair of painted surfaces or painted components; the removal of building components; weatherization projects, and interim controls that disturb painted surfaces. A renovation performed for the purpose of converting a building, or part of a building,
into target housing or a child-occupied facility is a renovation under 40 CFR 745. The term renovation does not include minor repair and maintenance activities.

30. Renovator: Renovator means an individual who either performs or directs workers who perform renovations. A certified renovator is a renovator who has successfully completed a renovator course accredited by EPA or an EPA-authorized State or Tribal Program.

31. Training Hour: Training hour means at least 50 minutes of actual learning, including, but not limited to, time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and hands-on experience.

32. View Port: A clear material, typically Plexiglas, which allows observation of all possible areas inside the work area.

33. Waste Generator Label: Waste Generator Label shall include the Generator’s Name, ID Number, Address and Waste Manifest Number.

34. Wet Cleaning: The process of eliminating asbestos, lead or other contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as contaminated waste. Often used in conjunction with detergents and/or other agents for lead, mold or other contamination.

35. Work Area: Designated rooms, spaces, or areas of the project in which abatement, removal or other disturbance activities involving asbestos, lead or other hazardous materials are undertaken or which may become contaminated as a result of such abatement actions. A contained Work Area is one which has been sealed and equipped with a decontamination enclosure system. A non-contained Work Area is a controlled-access Work Area which has not been sealed nor equipped with a decontamination enclosure system. Also known as a “Regulated Area”.

36. Worker Decontamination Enclosure System: That portion of a decontamination enclosure system designed for controlled passage of Workers, and other personnel and authorized visitors, typically consisting of a clean room, shower room, and an equipment room.

B. Definitions specific to a particular hazardous material are found in the specific hazardous material abatement specification section and are to be used to supplement the definitions of this section.

1.06 SUBMITTALS

A. General: Submit Pre-Job hazardous materials abatement submittals in accordance with Section 01330 of the Contract Documents and at least 14 days prior to any planned work. Allow a minimum of 14 days for review by the Environmental Consultant. Additional review time will be required for re-submittals of rejected or incomplete submittals. Upon written approval of the Pre-Job submittal package, the
hazardous materials abatement contractor may mobilize to site but shall submit the required remaining Pre-Start submittal items prior to starting any hazardous materials abatement work. Daily Submittals are due within 24 hours of completion of each day of site work. Inspection, Weekly, and Close-out Submittals are to be submitted within the time frames indicated below. At least one copy of each completed submittal shall be maintained on-site and shall be available for review. Refer to the Submittal Check Sheet which is provided as Appendix A to this section.

B. Pre-job Submittals. Submit a minimum of three (3) copies of each of the following hazardous materials submittals. Submittals shall be organized by type of work (asbestos abatement, lead impacted construction and abatement) and otherwise in the order specified herein. Partial submittals and/or submittals not organized in the required order will be considered deficient and not acceptable for review. No hazardous materials related work will begin until the submittal package has been fully approved in writing. Refer to the Submittal Check Sheet which is provided as Appendix A to this section.

1. Licensing and Registration: Submit copies of current and valid certificates for the following:

   a. Contractor’s license.
   b. Contractors and subcontractors Firm RRP Certification under 40 CFR 745

2. Notifications, Communications and Postings. Provide copies of all required notifications including the following:

   a. Division of Occupational Safety and Health
      Local Office
      (Pre-start notification lead)

   b. Bay Area Air Quality Management District (BAAQMD)
      939 Ellis Street
      San Francisco, CA 94109
      (415) 771-6000
      (As necessary)

   c. California Department of Public Health
      Childhood Lead Poisoning Prevention Branch
      850 Marina Bay Parkway
      Building P, Third Floor
      Richmond, CA 94804-6403
      (Abatement of Lead Hazards Notification – only if applicable)

   d. Federal EPA – RRP Notifications
      (Pamphlet Distributions/Notification/Documentation – only if applicable)

   e. City and County of San Francisco
      Department of Building Inspection
      (Notification of Paint Disturbing Work – only if applicable)
g. Where local police and fire departments have jurisdiction, provide required
notifications.

h. SFUSD required project notifications (see Appendix L). To be coordinated with
SFUSD and SFUSD construction manager.

3. Respiratory Protection Plan: Submit a site specific written respiratory protection
plan along with a written standard operating procedure governing selection, fit
testing, use, and storage of respirators in accordance with applicable regulation.
Include NIOSH Certification and manufacturer’s information that indicates
respirators to be used in this project have been properly selected for the
anticipated hazards and hazard levels.

4. Detailed Work Plan: Submit a work plan proposed for use in complying with the
requirements of specification section 02090 applicable to the work to be performed
for each hazardous material (lead impacted construction and abatement) at each
abatement/removal location and phase. Each work plan shall include:

a. A drawing or sketch showing details of the containment area including location
of the containment boundaries, Decontamination Enclosure System(s),
portable fire extinguishers, Differential Pressure Equipment (HEPA Units), and
emergency exit routes (where applicable);

b. Calculations for each NPE Work Area used to determine number of HEPA
Units to achieve required negative pressure and number of air changes per
hour (this work plan item not required);

c. Description of Regulated Area/Containment construction including materials;

d. Description of proposed removal methods, equipment, and materials for each
type of hazardous material and condition;

e. Method of containment and clean-up of hazardous materials during removal
and if there is an unexpected breakage or breach.

f. Detailed safe lead work practices for compliance with OSHA lead standard and
federal EPA RRP Program rule

g. Document training certifications and in-house worker training (EPA RRP)
h. Description of sample collection methods and analyses (Waste
characterization sampling and analysis plan) for proper waste characterization
for all construction generated wastes.

5. Waste Characterization Plan: Submit a waste characterization work plan
proposed for use in complying with the requirements of 1.03(A)(3) of this
specification for lead containing materials and waste soils requiring
characterization for offsite disposal and/or reuse that have not been previously
characterized (painted metal components). The work plan shall include:

a. Calculations (volume and tonnage) for each lead containing waste stream and
individual soil stockpiles (where applicable) identified for offsite disposal by
Work Area.
b. Sampling plan that identifies the number of bulk samples to be collected, sample collection methods to be used, preservation methods to be used and rationale for number and location of samples.

c. Analysis plan identifying the specific analytical methods to be used, composite versus discrete analysis to be used, Analysis plan shall conform with acceptance procedures for designated offsite disposal site (landfill or private) and shall comply with waste characterization requirements in CCR Title 22 and 40 CFR Parts 261, 265 and 268

d. Copies of landfill waste profile forms.

6. The Contractor shall submit a detailed schedule for completing hazardous materials work within the allowable time frame. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area.

7. The Contractor shall submit a detailed schedule for completing hazardous materials work within the allowable time frame. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area.

8. Method of secure storage of hazardous materials and hazardous wastes at the site.

9. Waste Transportation and Disposal:

   a. Name, address, EPA I.D. number and telephone number of each transporter of hazardous material waste and removed hazardous materials to be recycled.

   b. Method of disposal for each type of waste generated (i.e. hazardous waste (RCRA and Non-RCRA), non-hazardous, and recycled.

   c. Name, class, address, EPA I.D. number and telephone number of each treatment, storage, and disposal (TSD) waste site(s) to be utilized for disposal and facility or site to be used for recycling hazardous wastes. Clearly indicate what wastes are anticipated to be disposed or recycled at each TSD site or facility.

10. Rental Equipment Notifications: When rental equipment is to be used in removal areas or to transport waste materials, provide a copy of written notification given to the Rental Company informing them of the nature of use of the rented equipment. Otherwise, certify that no rental equipment is to be used.

11. Product Data: Manufacturers product data for all items required for complete and proper execution of the work, this includes product data for items listed in Part 2 Products of Section 02090 as applicable. Product data shall include manufacturing product data, specifications, application instructions; material safety data sheets (MSDS) and other information as necessary or required. All data sheets must be legible. Do not submit data for products not intended for use on this project.
C. **Pre-start Submittals.** Submit a minimum of one (1) copy of the following hazardous materials submittals to the Environmental Consultant at the site prior to the start of hazardous materials work. Additionally the Contractor shall maintain one (1) copy at the site at all times during hazardous materials related work. Submittals shall be organized by type of work (lead impacted construction). The Contractor’s Supervisor shall be held responsible for the accuracy and authenticity of the submittals provided. Discovery of altered or misleading personnel documents provided by the Contractor will result in the removal of such person(s) from the project immediately. Repeated offenses will result in the removal of the Contractor’s Supervisor. Refer to the Submittal Check Sheet which is provided as Appendix B to this section.

1. **Personnel Qualifications:** Personnel documents required by this section shall be organized by individual employees and must be current and valid. All workers who will be performing work at the site will be required to show photo documentation prior to approval of their personnel documents. Workers who do not have all the required documentation present at the site, including photo documentation, will be denied access to the type of hazardous material Work Areas for which they are lacking full valid documentation.

   a. **Training Certificates for non-abatement trade work in asbestos contaminated spaces:** Submit documentation of EPA 16 hour O & M training completion (not applicable for this project)

   b. **Lead Certifications.** Employee training certifications demonstrating that all employees engaged in lead removal activities have attended formal training by a Federal EPA RRP trained Lead Renovator for lead related activities in accordance with the worker training provisions in the Federal EPA Lead: Renovation, Repair and Painting Program (RRP) Requirements (both notification and training) and this specification:

      1) The minimum acceptable training course duration is 8 hours for the Contractor's Supervisor/Competent Person and 4 hours awareness training for asbestos related work.

      2) The Contractor's Supervisor(s) and workers shall be certified or demonstrate documented training with EPA RPP for lead-related construction and/or lead disturbance activities. Copies of each employee's certification/training shall be provided.

      3) Updated information shall be provided in advance of on-site lead worker personnel changes.

      4) The Contractor's Lead Renovator/Supervisor shall be onsite at all times during lead-related work.

      5) Contractor and all subcontractors that will disturb components containing lead based paint shall provide documentation of EPA certification under the Federal EPA Lead-based Paint, Renovation, Repair and Painting Program Rule.

      6) Contractor and all subcontractors that will disturb components containing lead based paint shall provide documentation that employees have received training in lead safe practices and training in conformance with the OSHA Lead in Construction Standard (Title 8 CCR Section 1532.1).
c. Medical Examination: Submit proper documentation, in the form of the physician’s written opinion, showing that all hazardous materials abatement personnel scheduled for this project have had the appropriate medical examinations applicable to their assignments. Exams must be in accordance with 8 CCR 1529 for asbestos, 8 CCR 1532.1 for lead, and 8 CCR 5144 for respiratory protection. All exams must have been conducted within the last 12 months. Respiratory use evaluation exams alone do not suffice for asbestos and lead related work. Do not submit actual medical exam results. The written physician’s opinion should indicate what exam(s) were provided and whether there are limitations on the worker.

d. Baseline blood lead testing performed in accordance with CAL/OSHA 8 CCR 1532.1 Lead and Federal OSHA 29 CFR 1926.62 Lead. The baseline blood lead shall have been within the past 30 days.

e. Respirator Fit Tests: Submit proper documentation that personnel who will be entering Regulated Areas have had a qualitative respirator fit test performed within the last 12 months for all face fitting respirators.

f. Provide a signed copy of Certificate of Worker’s Acknowledgment (Appendix C) for each worker conducting hazardous materials related removal work.

g. All other hazardous materials hazard communication training and related documentation for general construction work shall be kept on site for review upon request.

2. Calibration Data: Submit calibration data for the secondary standard (rotometer) that will be used on this project to calibrate personal air sampling pumps. The secondary standard must be calibrated to a primary standard within the last (6) six months.

3. HEPA Filtration Certifications:

a. Provide third party test certificates for all Differential Pressure Equipment and HEPA Vacuums to be used on this project. Such Certificates shall document that each item of equipment has been tested on-site prior to start-up and that the results have demonstrated that each HEPA equipment assembly meets the efficiency requirement for HEPA filtration as an installed system or unit of equipment.

b. All HEPA filtration testing must be conducted by challenging the installed filter system with 0.3 micrometer diameter particles using a dioctyl phthalate (DOP) particle generator & appropriate aerosol measurement test equipment designed for this purpose. Alternate test methods may be accepted if demonstrated to be equivalent and approved by the Environmental Consultant.

c. Test certificate stickers shall be placed on each machine tested and a copy of the testing certification shall be provided to the Environmental Consultant. The test result, date and time of testing, testing firm, and signature of qualified test technician shall be included on each certification along with equipment identification information.

D. Daily Submittals. As applicable, within 24 hours following the completion of each work shift, the Contractor shall submit the following information to the Environmental Consultant, as required by the applicable section.
1. Submit an employee roster for each work shift (Appendix D).

2. Work Area entry/exit logs (Appendix E).

3. Copies of Manometer recordings (Appendix F) as applicable [not applicable for this project].

4. Personal Air Monitoring Results: Provide copies of all personal air sampling results, 8-hour time weighted average (TWA) and short term exposure limit (STEL) results as applicable. Results shall be submitted on a daily basis or as approved by the Environmental Consultant.

5. Waste Manifests: Each time Hazardous Waste (i.e., asbestos, lead, PCBs, etc.) and Non-Hazardous Asbestos Waste is removed from the site; the Contractor shall submit complete and signed manifests to the Environmental Consultant. For hazardous waste manifests, submit the original signed generator copy including a completed Land Disposal Restriction Form, where applicable) for each manifest to the Environmental Consultant.

6. Special Reports: The Contractor shall submit a special report of unusual events of significance which occurs at the site. The report shall include the date and time of the event, activities leading up to the event, a detailed account of the event, persons involved, corrective actions taken and action taken to prevent a reoccurrence.

E. Inspection Submittals. The Contractor shall submit to the District and the Environmental Consultant a completed Pre-start or Final Inspection Form (Appendices G, H, I) at minimum 48 hours prior to inspection requests. Failure to properly notify the District and the Environmental Consultant in writing 48 hours in advance of a required hazardous materials inspection shall NOT result in an increase in number of days and/or shifts to the Contractor’s allotted schedule.

F. Weekly Submittals. The Contractor shall submit an updated detailed schedule for completing hazardous materials work within the allowable time frame on a weekly basis. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area. The Short Interval Schedule (SIS) or an equivalent weekly “look ahead” schedule can be used for this purpose.

G. Close-Out Submittals. Within 10 days following the completion of the Contractor’s work, the Contractor shall submit the following information to the Environmental Consultant.

1. The Contractor shall provide lists and quantities of ACCMs, ACMs, assumed ACMs and/or PACMs remaining in the work areas where they performed asbestos-related work and an abatement “as-built” drawing showing actual extent of removal [not applicable to this project].
2. All outstanding submittal information including; personal air sampling results, manifests, daily logs, sign-in/sign-out logs, manometer logs for all work areas, and all appendices required by this contract.

1.07 WORK SCHEDULE

A. Onsite hazardous materials related work shall not commence until all required submittals have been reviewed and approved. Delays due to deficient submittals will not result in contract time extensions.

B. Within the overall construction schedule, the total allotted time allowed for completion of all hazardous materials abatement work required by the Contract Documents is as follows:

1. four (4) eight-hour “regular shifts” for exterior hazardous materials related demolition work including management of generated waste streams.

C. The Contractor shall refer to the Contract Documents for construction phasing associated with the above allotted time to complete all interior and exterior hazardous materials related work.

D. The total number of work shifts allotted for the Contractor’s completion of hazardous materials related work for each phase of hazardous materials work includes the time required for the Environmental Consultant to conduct final clearance inspections and testing.

E. The Contractor will be responsible for additional costs incurred by the District for the Environmental Consultant for additional monitoring, consulting and analytical costs associated with working hours beyond the stipulated number of hours per shift and any additional shifts worked beyond the allotted number of shifts scheduled for the hazardous materials related work at the hourly rates, shift rates, and analytical rates established in Article 1.12 of this section.

F. Failed inspections and failed clearance tests shall be considered the result of defective work by the Contractor and, therefore, the Contractor shall be responsible for any additional travel, labor, and analytical costs associated with additional inspections and clearance testing by the Environmental Consultant.

G. The Contractor shall submit a detailed schedule for completing hazardous materials related removal and abatement work within the allowable time frame. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area. This schedule shall be provided prior to the start of any hazardous materials related removal or abatement work.

H. The Contractor shall provide to the District and the Environmental Consultant a minimum of one week (7 days) advance notice prior to start of each phase of work. In addition, the Contractor shall provide the District and Environmental Consultant a minimum 48 hours written notice for all pre-start and final visual hazardous materials.
inspection requests within each phase of work. Failure to properly notify the District and the Environmental Consultant in writing 48 hours in advance of a required hazardous materials inspection may result in inspection delays but shall NOT result in an increase in number of days and/or shifts to the Contractor's allotted schedule. Cost associated with failure to provide timely notices shall be borne solely by the Contractor.

I. The Contractor shall be bound to conducting its work activities during the dates and times specified in the approved construction schedule. Schedules and times that deviate from the schedule must be submitted and approved 72 hours in advance by the District and Environmental Consultant.

J. The Contractor shall provide to the District and the Environmental Consultant a minimum of 24 hours notice of their intent to cancel a previously scheduled workday. Failure to properly notify the District and the Environmental Consultant in writing will result in the loss of a full day or full shift to the Contractor's allotted schedule and the Contractor will be responsible for the Environmental Consultant shift cost established in Article 1.12 of this section.

1.08 SEQUENCE OF CONSTRUCTION OPERATIONS

A. The recommended sequence of construction operations for this project is as follows:
(Note: sequences may vary to best accomplish the work in a logical flow and/or to accommodate the District's needs. The Contractor may propose alternate sequences for approval by the District and Environmental Consultant.)

1. Insolate Construction Areas from Occupied Areas as required by the Contract Documents.

2. Set-up of regulated areas (including NPE's where required) for hazardous materials related work.


4. Remaining Construction Work

1.09 PRE-CONSTRUCTION MEETING FOR HAZARDOUS MATERIALS RELATED WORK

A. An initial progress meeting recognized, as "Pre-Construction Meeting" will be convened by the District prior to the start of any hazardous materials related work. Meet at the project site at a date and time to be determined.

B. This is an organizational meeting to communicate and review project communication lines, responsibilities, schedules, submittal issues, project details, temporary facilities, security issues and other project related issues.

C. The following individuals shall attend this meeting: the District; the Environmental Consultant; the Contractor's Principal or Superintendent; the Contractor's Competent Person scheduled for the project, and; any pertinent subcontractors.
1.10 ENVIRONMENTAL CONSULTANT

A. The Environmental Consultant is authorized to have free access to all hazardous materials Work Areas at any time. The Contractor shall supply the Environmental Consultant with disposable coveralls, respirators, replacement respirator cartridges, knee pads, flashlights, two way radios and any other required equipment.

B. The Environmental Consultant is authorized to conduct intermittent or continuous compliance observation and monitoring including, but not limited to:

1. Start up, progress, and clearance inspections for adequacy of containment, procedural compliance with contract documents, and completeness of work;
2. Air sampling for asbestos, lead or other contaminate to determine containment integrity;
3. Dust wipe, surface, bulk, or soil sampling for lead, PCB, or other hazardous materials to determine initial conditions and to evaluate Contractor containment controls;
4. Clearance air and surface sampling to evaluate compliance with completion standards; and
5. Collection and review of documentation to be provided by the Contractor including Pre-Start, Daily, Inspection, Weekly, and other required submittals.

C. The Contractor shall ensure that full cooperation is provided to the Environmental Consultant in carrying out the Environmental Consultant's responsibilities as the District's Representative including the immediate correction of any problems identified. The Contractor shall fully comply with the specifications and any applicable regulations.

1.11 ENVIRONMENTAL TESTING

A. The Environmental Consultant will be collecting dust wipe samples at the completion of lead related activities where required or deemed appropriate by the District. Sample results in excess of lead dust clearance levels (refer to Section 02090) will require cleanup by the Contractor of the affected areas using approved cleaning techniques at no additional cost to the District. All costs for additional testing (i.e. Consultant fees and laboratory analysis) shall be the responsibility of the Contractor.

B. The Environmental Consultant will be collecting air samples during asbestos related work activities and at completion of asbestos abatement operations in the impacted Work Areas. In some instances, samples will be collected prior to start or removal to benchmark an area. The collection of other types of samples will be at the discretion of the District and Environmental Consultant and on an “as needed” basis [Not applicable to project].

C. Air sample results in excess of 0.01 fibers per cubic centimeter (f/cc), as determined by phase contrast microscopy (PCM) analysis for samples collected outside the asbestos abatement Regulated Area or Containment during asbestos related work will be considered the result of defective work and will require cleaning of the affected areas by the Contractor using approved cleaning and decontaminating techniques at
no additional cost to the District. Likewise for clearance air samples, results in excess of AHERA PCM or transmission electron microscopy (TEM) clearance standards will be considered the result of defective work and will require re-cleaning of the affected areas by the Contractor using approved cleaning and decontaminating techniques at no additional cost to the District [Not Applicable to Project].

D. Contractor shall carefully coordinate all work activities to avoid impacting air sampling during asbestos related activities. All costs, including consultant labor fees and analytical fees, for additional testing required due to air sample results outside the Work Area containment exceeding 0.01 fibers per cubic centimeter as analyzed by PCM shall be the responsibility of the Contractor. Likewise, all consultant and analytical costs for failed clearance air samples by either PCM or TEM shall be the responsibility of the Contractor. All results of PCM sampling during asbestos related work will be considered to represent actual measured asbestos fiber levels unless proven otherwise at no additional cost to the District [Not Applicable to Project].

1.12 CONSULTANT FEES AND TESTING COSTS

A. In accordance with the General Conditions (00700, Article 9.09) or General Conditions of the Contract Documents or as specified elsewhere in the Contract Documents by the Owner/District, the Contractor shall be responsible for additional costs incurred by the District for monitoring and consulting work by the Environmental Consultant when the additional work and/or costs are caused by the Contractor or the Contractor's work activities as described herein.

B. When the Contractor's work activities, actions or inactions are determined by District to have resulted in any of the following circumstances or conditions, the Contractor shall be responsible for taking action to correct any of these deficient condition(s) identified and shall be responsible for all associated costs including the cost of the Environmental Consultant and all associated analytical costs:

1. Breach of containment, hazardous materials spills (i.e. lead, asbestos, mold, PCBs, etc.) outside the Work Area based on visual evidence containment failure or contamination release;

2. Containment failure or other releases as evidenced by air sample results over 0.01 f/cc by PCM outside the asbestos Work Area and/or lead dust wipe sample results over 40 µg/ft² outside the lead-related construction Work Area;

3. Other hazardous materials related emergencies arising out of the Contractor's work;

4. Re-work of defective and/or incomplete abatement work as evidenced by failed visual inspections or failed clearance test results;

5. Incomplete abatement work (i.e. additional removal of hazardous materials due to lack of proper planning, proper layout for removal, etc.) as evidenced by the set-up of additional regulated areas (containments) requiring additional removal, inspections and testing at work areas/zones where the hazardous materials related
work was previously completed by the Contactor;

6. Failure to complete scheduled hazardous materials work within the total allotted number of work shifts specified in this section for the base bid, phase, or alternate as applicable. Partial shifts shall be counted as whole shifts for the purpose of determining the total number of hazardous material related work shifts worked for this Contract.

7. Failure to provide the District’s Project Manager and the Environmental Consultant a minimum of 24 hours notice of their intent to cancel a previously scheduled workday. This will result in the Contractor being responsible for the entire work shift cost of the Environmental Consultant as though the shift had been worked.

C. The following rates shall be used to determine the additional Environmental Consulting costs and shall be considered agreed upon for determining the monitory damage to be back charged to the Contractor for any of the conditions described in Paragraph B above:

1. **Daily Hourly Rates (Regular Business Hours – Monday thru Friday)** – Hourly rates for each technician for additional on-site monitoring and/or consulting shall be: $105 per hour for each additional hour of work over 8 hours but less than 12 hours in a day; $140 per hour for each hour worked over 12 hours but less than 24 hours per day;

2. **Off Shift Hourly Rates (Weekends and Night Work)** – Hourly rates for each technician for on-site monitoring and/or consulting shall be: $105 per hour for each hour of work less than 12 hours in a day; $140 per hour for each hour worked over 12 hours but less than 24 hours per day;

3. **Daily Shift Rates (Regular Business Hours – Monday thru Friday)** – Shift rates shall be charged at the rate of $695 per 8-hour shift; $905 per 10-hour shift; and $1,115 per 12-hour shift for compliance observation and monitoring. Each shift includes up to six (6) PCM air samples or six (6) lead air samples;

4. **Off Shift Rates (Weekends and Night Work)** – Shift rates shall be charged at the rate of $975 per 8-hour shift; $1,185 per 10-hour shift; and $1,395 per 12-hour shift for compliance observation and monitoring. Each shift includes up to six (6) PCM air samples or six (6) lead air samples; and

5. **Analytical Costs** – Analytical costs will be charged at actual costs plus 15 percent for additional samples required for additional shifts, spills, other emergencies and re-work.

1.13 **SPECIAL PROVISIONS**

A. Prior to disturbing any hazardous materials, the Work Area must be effectively isolated from interior and exterior areas occupied or in use by the District. Isolation shall be by rigid physical construction barriers and HVAC isolation by shut down and/or capping in addition to any required critical barriers or other specific containment and control
requirements. Alternative methods may be proposed by the Contractor but must be approved by the District and Environment Consultant in advance.

B. All plastic sheeting and construction materials for construction of barriers, containments, decontamination units, critical barriers and related controls shall be flame retardant or fire rated.

C. The Contractor shall keep one un-used decontaminated HEPA vacuum certified to be clean, have all new filters, and DOP test certification available on-site in a secure storage location for emergency response clean up in the event that friable asbestos is disturbed and released during abatement or construction. Include this provision in the emergency response portion of the Detailed Work Plan Submittal.

D. All electrical power to the Work Areas shall be de-energized and locked out to the extent possible with any remaining energized lines clearly demarcated and protected. The Contractor is responsible for establishing temporary power protected by ground fault circuit interrupters (GFCIs). In addition, the Contractor shall provide an adequate number of GFCI protected electrical power outlets and extension cords for dedicated use of the Environmental Consultant. At minimum, provide six power cords inside each containment and two outside each containment unless otherwise noted or agreed upon.

E. All negative pressure enclosures (NPEs) shall be equipped with accurate and functioning manomethric gages with circular chart recorders that continuously document negative pressure conditions. Recording charts shall be replaced daily. Copies shall be provided to the Environmental Consultant mounted on a completed Appendix F form within 24 hours as a Daily submittal.

F. The Contractor shall take all necessary precautions and modify work procedures to prevent hazardous materials spills or releases of any kind. The Contractor shall immediately extend the boundaries of the Regulated Work Area to incorporate the affected area if a spill or release occurs. The Contractor shall immediately contact the District and the Environmental Consultant.

G. If at any time during the course of this project additional suspect hazardous materials are identified or different conditions are encountered by the Contractor, the Contractor shall immediately notify the District and Environmental Consultant in writing and request an investigation.

H. Minimum respiratory protection for this project during all asbestos related activities shall be full face, powered air purifying respirators unless otherwise noted.

I. Minimum respiratory protection for this project during all lead and mold related activities shall be half-face air purifying respirators.

J. The Contractor shall hold the District and its consultants harmless for claims, damages, losses, and expenses, including attorney’s fees arising out of the Contractor’s asbestos, lead, or other hazardous materials related work including releases from any incidental disturbance of existing hazardous materials, on-site or
off site spills of hazardous materials, or from non-compliance with the Contract Documents and regulatory requirements

1.14 SECURITY

A. The Contractor shall take all necessary security measures to prevent unauthorized personnel access to the Building(s), hazardous materials Work Area(s), and waste bin(s) storing hazardous waste for the duration of the project.

B. The Contractor shall make all necessary arrangements for deactivation and re-activation of security alarms for work during off hours, weekends, and holiday in advance of scheduled work.

1.15 AUTHORITY TO STOP WORK

A. The District has the authority to stop work if it is determined that conditions or procedures are not in compliance with the specifications and/or applicable regulations; or the Contractor is deficient on submitting daily required paperwork; or the Contractor is impacting Facility and/or adjacent operations; or a potential release of lead, asbestos, or other hazardous material contamination outside the Work Area could occur; or if any other unsafe condition deemed to represent an immediate hazard to adjacent building occupants exists.

B. The work stoppage shall remain in effect until conditions have been corrected and corrective measures have been taken to the satisfaction of the District and the Environmental Consultant. All standby time and testing costs required to correct the above mentioned problems shall be borne solely at the Contractor's expense.

PART 2 - PRODUCTS: NOT USED

PART 3 - EXECUTION: NOT USED

END OF SECTION
## PRE-JOB SUBMITTAL CHECKLIST

**Instructions:**
Use of this check sheet is required but should be understood to be a brief listing of the major submittal items required. It is not intended to be a substitute for the detailed submittal requirements of the contract. The Contractor's submittal must comply with the requirements of Section 01011 Article 1.06 and be in technical compliance with applicable technical specification sections and regulations.

### I. OWNER INFORMATION

<table>
<thead>
<tr>
<th>Owner Name</th>
<th>San Francisco Unified School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>135 Van Ness Avenue, Suite 203C, San Francisco, CA 94102</td>
</tr>
<tr>
<td><strong>Point Of Contact</strong></td>
<td>Ryan Henderson</td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
<td><a href="mailto:hendersonr@sfusd.edu">hendersonr@sfusd.edu</a></td>
</tr>
<tr>
<td><strong>Phone No.</strong></td>
<td>(415) 241-6152 ext 1559</td>
</tr>
<tr>
<td><strong>Fax No.</strong></td>
<td>(415) 241-6635</td>
</tr>
<tr>
<td><strong>Project Title</strong></td>
<td>2006 Prop A Bond Measure Program New Traditions ES Fence Replacement Phase I</td>
</tr>
</tbody>
</table>

### II. ENVIRONMENTAL CONSULTANT (EC) INFORMATION

<table>
<thead>
<tr>
<th>Consultant Name</th>
<th>Millennium Consulting Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>620 Contra Costa Blvd, #102 Pleasant Hill, CA 94523</td>
</tr>
<tr>
<td><strong>Point Of Contact</strong></td>
<td>Mark Milani</td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
<td><a href="mailto:mmilani@mecaenviro.com">mmilani@mecaenviro.com</a></td>
</tr>
<tr>
<td><strong>Phone No.</strong></td>
<td>(925) 808-6700</td>
</tr>
<tr>
<td><strong>Fax No.</strong></td>
<td>(925) 808-6708</td>
</tr>
</tbody>
</table>

### III. CONTRACTOR INFORMATION

**General Contractor Name:**

**Address:**

**Point Of Contact:**

**Email Address:**

**Phone No.**

**Fax No.**

**Haz. Mat. Contractor Name:**

**Address:**

**Point Of Contact:**

**Email Address:**

**Phone No.**

**Fax No.**

### IV. SUBMITTAL INFORMATION

<table>
<thead>
<tr>
<th>Owner Submittal No.:</th>
<th>Millennium Proj. No.</th>
<th>19001.2088</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Received by EC:</td>
<td>No. Copies Received:</td>
<td></td>
</tr>
<tr>
<td>Date Reviewed by EC:</td>
<td>Review Performed by:</td>
<td></td>
</tr>
<tr>
<td>No. Copies of Submittal Distributed:</td>
<td>Date: Distributed:</td>
<td></td>
</tr>
</tbody>
</table>
V. PRE-JOB SUBMITTALS - Refer to Section 01011 Article 1.06 for detailed requirements:

Pre-job Submittals must be approved prior to the initiation of any hazardous materials related work including set-up operations. At minimum, ensure the following is submitted and complete.

<table>
<thead>
<tr>
<th>Item Submitted</th>
<th>Required</th>
<th>Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1. Licensing &amp; Registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Notifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Cal/OSHA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. AQMD/APCD/EPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. CDPH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. EPA RRP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Resp. Protection Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Detailed Work Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Drawing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. NPE Calculations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Desc. of Reg. Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Desc. of removal methods, equipment &amp; materials.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Waste water containment and waste management plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Detailed Schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Secure Waste Storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Transporter Info.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Disposal Method/Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Treatment, Storage &amp; Disposal Waste Site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Rental Equip. Notifications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Submittal Review No.: __________________ Review Date: __________________
This Submittal has been reviewed for conformance with the Contract Documents. MILLENNIUM has the following comments:

☐ Approved, No Exceptions
☐ Approved as Noted Above (conditional approval)
☐ Rejected Completely. Revise & Resubmit
PRE-START SUBMITTAL CHECKLIST

Instructions:
Use of this check sheet is required but should be understood to be a brief listing of the major pre-start submittal items required. Pre-start Submittals must be approved at the site prior to the initiation of any hazardous materials related work. They may be submitted earlier but must be limited to documentation and certification for assigned workers and equipment. Do not submit extraneous information, but update later as needed for changes. The Contractor’s submittal must comply with the requirements of Section 01011 Article 1.06 and be in technical compliance with applicable technical specification sections and regulations.

I. OWNER INFORMATION

Owner Name: San Francisco Unified School District  
Address: 135 Van Ness Ave, Suite 203C, San Francisco, CA 94102  
Point Of Contact: Ryan Henderson  
Phone No.: (415) 241-6152 ext 1559  
Email Address: hendersonr@sfnusd.edu  
Fax No.: (415) 241-6635  
Project Title: 2006 Proposition A Bond Measure Program New Traditions Fence Replacement Phase I

II. PRE-START SUBMITTALS - Reference 01011 (1.06):

<table>
<thead>
<tr>
<th>Item Submitted</th>
<th>Required</th>
<th>Accepted</th>
<th>Review Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1. Personnel Qualifications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Asbestos Sup. &amp; Workers Certs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 16 Hr. Asbestos Certs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. CDPH Lead Sup. &amp; Workers Certs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Mold Certs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Medical Exams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Blood Leads (&lt; 30 days)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Resp. Fit Tests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Worker Ack. (App. C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Haz. Comm. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. EPA Renovator Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Calibration Data (&lt;6 Mos.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. HEPA Certifications</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: After start up of hazardous material work, progress submittals including Daily, Inspection, and Weekly Submittals are required. Upon completion of all hazardous materials work, Close Out Submittals are required. Refer to Section 01011 Article 1.06 for detailed information and requirements.
CERTIFICATE OF WORKER’S ACKNOWLEDGMENT

PROJECT NAME: New Traditions Elementary School – Fence Replacement Project, Phase I

PROJECT ADDRESS: 2049 Grove St, San Francisco, CA 94117

CONTRACTOR’S NAME: 

WORKING WITH HAZARDOUS MATERIALS CAN BE DANGEROUS.

Your employer’s contract with the Owner for the above project requires that: You will be supplied with the proper respirator and be trained in its use. You will be trained in safe work practices and in the use of the equipment found on the job. You will receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. I have a copy of the written respiratory protection manual issued by my employer. I have been equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: I have completed a training course of not less than 4 days for the types of hazards I will be working with. I have been trained in the dangers inherent in handling hazardous materials and in proper work procedures and personal and area protective measures. The topics covered in the course included the following:

- Physical characteristics of hazards
- Associated Health hazards
- Respiratory protection
- Use of personal protective equipment
- Pressure Differential Systems
- Work practices including hands-on or on-the-job training
- Personal decontamination procedures
- Air monitoring, personal, and area

MEDICAL EXAMINATION: I have had a medical examination within the past 12 months in accordance with applicable regulations (asbestos, lead, mold, etc.), which was paid for by my employer. This examination included: health history, pulmonary function tests, and may have included an evaluation of a chest x-ray.

By signing this document you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer, the Contractor.

Printed Name: ________________________________

Signature: ________________________________ Date: ________________________________

Witness: ________________________________
EMPLOYEE DAILY ROSTER

MILLENIUM PROJECT NUMBER: 19001.2088

PROJECT TITLE: New Traditions Elementary School – Fence Replacement Project, Ph I

CONTRACTOR:

COMPETENT PERSON:

IMPORTANT NOTE: ALL PERSONS ENTERING AND EXITING THE WORK AREA MUST SIGN IN AND OUT EVERY TIME.

<table>
<thead>
<tr>
<th>No.</th>
<th>PERSONS NAME (PRINT)</th>
<th>START TIME</th>
<th>STOP TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WORK AREA ENTRY/EXIT LOG

DATE: ___________________  PROJECT #:  19001.2088  CONTRACTOR: ___________________

PROJECT TITLE: New Traditions Elementary School – Fence Replacement Project, Phase I
WORK AREA: Phase I Fence Demolition Limits

LOCATION OF WORK AREA: Phase I Fence Demolition
DESCRIPTION OF WORK: Removal and Replacement of Existing Perimeter Fence to Phase I Limits

IMPORTANT NOTE: ALL PERSONS ENTERING AND EXITING THE WORK AREA MUST SIGN IN AND OUT EVERY TIME.

<table>
<thead>
<tr>
<th>PERSONS NAME (PRINT)</th>
<th>SIGNATURE</th>
<th>START TIME</th>
<th>STOP TIME</th>
<th>START TIME</th>
<th>STOP TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DAILY MANOMETER REPORT

Project Title: New Traditions Elementary School – Fence Replacement Project Phase I
Work Area Location: 
Contractor: 
Competent Person: 
Start Date: Stop Date: 
Start Time: Stop Time: 

(CONTRACTOR IS TO ATTACH A COPY OF THE NEGATIVE PRESSURE RECORDING HERE AND COMPLETE THIS FORM FOR EACH WORK AREA ON A DAILY BASIS).

FORM NOT APPLICABLE FOR USE ON PROJECT

I hereby declare the above data is true and correct.

Competent Person's Signature: Date:
PRE-ABATEMENT VISUAL INSPECTION FORM

CLIENT NAME:  
San Francisco Unified School District

PROJECT TITLE:  
New Traditions Elementary School – Fence Replacement Project, Phase I

BUILDING NAME:  
New Traditions Elementary School

LOCATION OF WORK AREA:  
Exterior Perimeter Fence – Phase I limits

DESCRIPTION OF WORK:  
Removal and replacement of existing fencing system.

VISUAL INSPECTION

CONTRACTOR hereby certifies that he has visually inspected the Work Area and has found it to be prepared in accordance with the project specifications. This inspection included the verification that Primary Barriers have been installed and are sealed, specified number of layers of polyethylene sheeting have been installed properly, Decontamination Enclosure System(s) is fully functional, HEPA units are operational, negative air pressure is at least -0.02 inches of water (if applicable), manometer unit recording properly (if applicable), HVAC and electrical systems have been locked and tagged out, there is adequate power and lighting, and all electric sources are supplied from GFI's outside the Work Area.

NAME:  

INSPECTION DATE:  

SIGNATURE:  

CERTIFICATION #:  

OWNER'S CONSULTANT hereby certifies that he has conducted a pre-abatement visual inspection of the referenced Work Area, and verifies that the Contractor has prepared the Work Area in accordance with the Specifications and is ready to start abatement operations.

NAME:  

INSPECTION DATE:  

SIGNATURE:  

CERTIFICATION #:  

MILLENNIUM  
CONSULTING ASSOCIATES  
A MECA Consulting, Inc. Company  
REF. NUMBER:  19001.2088  
Section 01011 - Appendix G
FINAL VISUAL AND CLEARANCE CERTIFICATION FORM

CLIENT NAME: San Francisco Unified School District
PROJECT TITLE: New Traditions ES Fence Replacement Project, Phase I
BUILDING NAME: Exterior Fence – Phase I Limits
LOCATION OF WORK AREA: Exterior Fence – Phase I Limit
DESCRIPTION OF WORK: Removal and Replacement of Fence

MILLENNIUM REF. NUMBER: 19001
MILLENNIUM REF. NUMBER: 2088

VISUAL INSPECTION

CONTRACTOR hereby certifies that he has visually inspected the Work Area and has found no dust, debris or residue. This inspection included all surfaces including pipes, beams, ledges, walls, ceiling, floor, Decontamination Unit, sheet plastic, etc.

NAME: ___________________________________  INSPECTION DATE: ____________________
SIGNATURE: _______________________________  CERTIFICATION #: ____________________

OWNER’S CONSULTANT hereby certifies that he has performed the final visual inspection of the referenced Work Area, and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor’s Certification above is a true and honest one.

NAME: ___________________________________  INSPECTION DATE: ____________________
SIGNATURE: _______________________________  CERTIFICATION #: ____________________

CLEARANCE AIR SAMPLING

PRE-ABATEMENT/BACKGROUND FIBER LEVELS: ____________________________________________

OWNER’S CONSULTANT hereby certifies that the results of air samples collected and analyzed in this work area meet the clearance criteria indicated below:

☐ Not Applicable – Cleared by Visual Inspection Only – Exterior Work Area
☐ Not Applicable – Cleared by Visual Inspection Only for the following Reasons: ____________

☐ ________ Aggressive PCM Samples at or below _________ Fibers/cc
☐ ________ Non-Aggressive PCM Samples at or below _________ Fibers/cc
☐ ________ Aggressive TEM Samples at or below _________ Structures/mm²
☐ ________ Non-Aggressive TEM Samples at or below _________ Structures/mm²

Millennium Clearance Air Sample Nos

NAME: ___________________________________  INSPECTION DATE: ____________________
SIGNATURE: _______________________________  CERTIFICATION #: ____________________
REVIEWER: _______________________________  CERTIFICATION #: ____________________
LEAD FINAL VISUAL AND CLEARANCE CERTIFICATION FORM

CLIENT NAME: San Francisco Unified School District
MILLENIUM PROJECT #: 19001.2088

PROJECT TITLE: New Traditions Elementary School Fence Replacement Project, Phase I

LOCATION OF WORK AREA: Exterior Perimeter Wood Fence, Phase I Limits

DESCRIPTION OF WORK: Removal and replacement of existing fence system.

VISUAL INSPECTION

CONTRACTOR hereby certifies that he has visually inspected the Work Area and has found no dust, debris or residue. This inspection included all horizontal surfaces including pipes, beams, ledges, walls, ceilings, floors, windows, Decontamination Unit(s), sheet plastic, etc.

<table>
<thead>
<tr>
<th>NAME:</th>
<th>INSPECTION DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNATURE:</td>
<td>CERTIFICATION #:</td>
</tr>
</tbody>
</table>

OWNER'S CONSULTANT hereby certifies that a final visual inspection has been performed within the referenced Work Area, and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's Certification above is a true and honest one.

<table>
<thead>
<tr>
<th>NAME:</th>
<th>INSPECTION DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNATURE:</td>
<td>CERTIFICATION #:</td>
</tr>
</tbody>
</table>

CLEARANCE DUST WIPE SAMPLING

PRE-ABATEMENT DUST WIPE SAMPLE RESULTS:
(Provide Average Concentration or N/A if no Pre-samples)

<table>
<thead>
<tr>
<th>Floors Areas:</th>
<th>µg/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window Sills:</td>
<td>µg/ft²</td>
</tr>
<tr>
<td>Window Troughs:</td>
<td>µg/ft²</td>
</tr>
</tbody>
</table>

OWNER'S CONSULTANT hereby certifies that the results of dust wipe samples collected and analyzed in this work area meet the clearance criteria indicated below:

- ☐ 40 µg/ft² for Floor Areas
- ☐ 250 µg/ft² for interior Window Sills
- ☐ 400 µg/ft² for exterior Window Sills/Window Troughs, Bare Concrete Surfaces and Exterior Horizontal Surfaces
- ☐ Not Applicable – Cleared by Visual Inspection Only for the following reasons:

Millennium Dust Wipe Sample No: ____________________________

<table>
<thead>
<tr>
<th>NAME:</th>
<th>INSPECTION DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNATURE:</td>
<td>CERTIFICATION #:</td>
</tr>
</tbody>
</table>

REVIEWER: ____________________________
CERTIFICATION #: ____________________________
APPENDIX J
HAZMAT SCHEDULE – EXTERIOR
<table>
<thead>
<tr>
<th>Room Name/No.</th>
<th>Surface</th>
<th>Material</th>
<th>Demolition Work</th>
<th>New Finish Installation - Contractor Assist</th>
<th>Work Task Description / Comment</th>
<th>Sheet No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACM</td>
<td>Quantity ACM</td>
<td>Lead</td>
<td>Quantity Lead</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exterior Playground Area</td>
<td></td>
<td>Ceiling</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fences Wood and Metal</td>
<td>No</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Floor Pebble concrete w/ paint</td>
<td>No</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Misc Paint on pavement, play structure</td>
<td>No</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>Exterior Main Building</td>
<td></td>
<td>Ceiling</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wall(s) Concrete/texturing</td>
<td>No</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Floor Concrete w/ paint</td>
<td>No</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Door/Door Frame Metal/metal-blue/lue</td>
<td>No</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Misc Columns w/ texturing (near loggia), handrails, exterior gate, benches</td>
<td>Yes</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Mercury/ Radioisotope</td>
<td>Fluorescent Lights</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exterior Bungalow</td>
<td></td>
<td>Ceiling</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wall(s) Wood composite panels</td>
<td>No</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Floor Wood deck</td>
<td>No</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Door/Door Frame -</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Misc Awning panels</td>
<td>Yes</td>
<td></td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Mercury/ Radioisotope</td>
<td>Fluorescent Lights</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exterior
APPENDIX K
HAZARDOUS MATERIAL ABATEMENT
DRAWINGS
APPENDIX L
NOTIFICATIONS
# LEAD-WORK PRE-JOB NOTIFICATION

(*Note: Items marked are required)*

<table>
<thead>
<tr>
<th>Name of employer doing 'Lead Work'</th>
<th>Address</th>
<th>Zipcode</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor:</td>
<td>*Number of lead-job workers: (Check one below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Supervisor name:</td>
<td>1 - 5</td>
<td>31 - 40</td>
<td></td>
</tr>
<tr>
<td>California Department of Health Services Lead Cert. No.</td>
<td>6 - 10</td>
<td>41 - 50</td>
<td></td>
</tr>
<tr>
<td>(if applicable)</td>
<td>11 - 20</td>
<td>&gt; 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 - 30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job start date/time</th>
<th>Job completion date/time</th>
<th>Shift (Check all that apply)</th>
<th>*Approximate duration of 'Lead Work' in days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Street address or location of job</th>
<th>City</th>
<th>Nearest cross street</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precise location of work (building no., room no., etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity contracting the lead-work (check one)</td>
</tr>
<tr>
<td>Premises Owner</td>
</tr>
<tr>
<td>Name:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of structure and use: (Check all that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Building</td>
</tr>
<tr>
<td>Public Access/Commercial</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope of work and work practices:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe lead-related work to be done (check all that apply)</td>
</tr>
<tr>
<td>Surface Preparation</td>
</tr>
<tr>
<td>Water/Moisture Damage Repair</td>
</tr>
<tr>
<td>Window/Door Repair/Replacement</td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Describe paint removal methods (Check all that apply):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Scraping/Sanding</td>
</tr>
<tr>
<td>Power Sanding/Grinding</td>
</tr>
<tr>
<td>Chemical Stripping</td>
</tr>
<tr>
<td>Other work practices disturbing lead:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of area to be disturbed: (Check one per column)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10 square feet</td>
</tr>
<tr>
<td>10 - 100 square feet</td>
</tr>
<tr>
<td>101 - 1000 square feet</td>
</tr>
<tr>
<td>&gt; 1000 square feet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Torch cutting/welding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of work:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concentration of lead in disturbed materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>parts per million (ppm)</td>
</tr>
<tr>
<td>mg/cm²</td>
</tr>
</tbody>
</table>

Name of Notifier: Title: Date: |
LEAD PAINT WORK NOTIFICATION MEMORANDUM

To: Site Administrator
    School Name

From: PM Name
      SFUSD Project Manager

Date: xx/xx/xxxx

Subject: Notification of Lead-Based Paint Work

All SFUSD construction projects that include any lead disturbance will be performed in accordance with the Environmental Protection Agency (EPA), Bay Area Air Quality Management District (BAAQMD) and California Occupational Safety and Health Administration (Cal-OSHA) regulations.

This letter is notification that construction work to be performed at School Name will include disturbance of lead containing material(s). The lead disturbance work is scheduled to occur from xx/xx/xxxx through xx/xx/xxxx. No unauthorized entry by unprotected personnel is allowed in these designated areas during abatement.

Areas under construction at School Name include:

Describe in detail the area under construction – Building, floor, room #, etc.

Please contact the following for:
- Additional information: PM Name, SFUSD PM at 415-xxx-xxxx.
- Emergency contact: Rafael Picazo, SFUSD Asbestos Control Program at 415-241-6226.

Please post and distribute this notification to staff, parents, visitors and volunteers.
Guide to Work that Disturbs/Removes Lead-Based Paint

On January 5, 1998, legislation that amended the San Francisco Building Code (by adding SFBC Chapter 36, and later moved to SFBC Section 3407) became effective. The legislation governs work that disturbs or removes lead-based paint on the exterior of any pre-1979 building and steel structures.

Effective July 4, 2004, legislation was passed by the Board of Supervisors and signed by the Mayor that amends the SFBC Section 3407. The new legislation governs work that disturbs or removes lead-based paint in the interior of pre-1979 buildings that are in Group/Division E3, R1 or R3 occupancy classification, as well as, the exterior of any pre-1979 buildings and all steel structures.

What is a Group/Division E3, R1 or R3 Occupancy Classification?

The description of the Group/Division comes from the SFBC (Chapter 2 and Table 3-A) and is:

- **Group E Division 3 Occupancy.** Any building or portion of a building used for day-care purposes (the care of persons during any period of a 24-hour day where permanent sleeping accommodations are not provided) for more than six persons;
- **Group R Division 1 Occupancy.** Hotels/Motels (six or more guest rooms), apartment houses (three or more dwelling units, including residential condominiums), and congregate residences (any building or portion of a building that contains facilities for living, sleeping and sanitation accommodating more than 10 persons); and,
- **Group R Division 3 Occupancy.** Dwellings (any building or portion of a building that contains not more than two dwelling units), lodging houses (any building or portion of a building containing not more than five guest rooms), and congregate residences (any building or portion of a building that contains facilities for living, sleeping and sanitation accommodating 10 or fewer persons).

I want to renovate the interior and/or exterior of a building. What must I do?

The owner or contractor must:

- Notify affected parties before work begins;
- Use containment and/or barrier systems;
- Restrict access to the regulated area (except regulated areas that are required for access or egress during the course of the work, see SFBC 3407.4.1 Restrict Access for requirements);
- Prohibit lead-based paint from going beyond the containment and/or barrier systems; and,
- Remove all visible lead-based paint chips and dust before completing work or when access to the regulated area is required (see SFBC 3407.4.4 Clean Up Standards).

Who do I notify?

Owner’s responsibilities:

- Notify residential occupants no less than three business days before work begins (see DBI Form D); and,
- If you have not already done so, provide residential occupants with the pamphlet from the US Environmental Protection Agency (US EPA) Protect Your Family from Lead In Your Home, before work begins.

Owner’s or contractor’s responsibilities:

- Post a “Lead Work In Progress” sign before work begins if containment is needed to prevent lead-based paint from migrating to another property. Remove the sign when work is complete (see DBI Sign 1). Where signage is not possible, provide a letter to your neighbors (see DBI Form C).

To pick up copies of the DBI Forms C and D and Sign 1, come to the DBI, 1660 Mission Street, San Francisco.
Do I have to test for lead before work can begin?

No. But if your building was built before 1979, and you don’t test the paint or coating for lead, you must presume that the paint or coating contains lead.

How do I test my paint for lead?

Contact a certified lead inspector/assessor. For lists of certified lead inspectors/assessors, contact the CA Department of Health Services (DHS), Lead-Related Construction Information Line, 1/800/597-LEAD, or visit: www.childlead.com. Be sure that the inspector/assessor consults the SFBC Section 3407 for the definition of lead-based paint.

What are containment and barrier systems?

It is any measure that prevents the migration of work debris. Containment and barrier systems refers to various methods of preventing work debris from migrating beyond the regulated area, and usually includes the use of disposable plastic sheeting to protect the ground, floor or other interior surfaces, or to seal off windows, doors and ventilations openings. Plastic sheeting refers to polyethylene plastic sheeting that is at least 6-mils thick (or equivalent).

Anything else I should know?

Yes! The following work practices are prohibited:

- Open flame burning or torching;
- Heat guns without containment and barrier systems, or operating above 1,100 °F or causing the charring of paint;
- Hydro blasting or high-pressure washing without containment and barrier systems; and,
- Dry manual sanding or scraping, machine sanding or grinding, or abrasive blasting or sandblasting without containment and barrier systems or a HEPA vacuum local exhaust tool.

What happens if I don’t comply?

If you are deemed responsible, you will face one or more of the following enforcement actions:

- Notice to correct violations;
- Notice to stop work immediately and work not to be resumed without authorization;
- Clearance inspection by an independent certified lead inspector/assessor to verify the absence of lead-based paint hazards;
- Administrative penalties of up to $500 per violation per day;
- Fees to cover the cost of the City agency’s enforcement of the administrative penalties; and/or,
- Attendance in lead related construction supervision and project monitoring training approved by the CA DHS (in lieu of administrative penalty for first time violation).

Where can I get help?

For questions regarding work that disturbs/removes lead-based paint (SFBC 3407): DBI, Lead Hazard Reduction Program, 415/558-6598.

For information related to childhood lead poisoning: DPH, Children’s Environmental Health Promotion Program, 415/554-8930.

For copies of the US EPA pamphlet, Protect Your Family From Lead-Based Paint in Your Home: US EPA office, 415/947-4164.

For a variety of information related to lead in construction: CA DHS, Lead-Related Construction Information Line, 1/800/597-LEAD.

For a copy of the Guidelines for Evaluation and Control of Lead-Based Paint Hazards: US HUD, 1/800/245-2691.

Form 9/Rev. 3-15-06
NOTICE to the OCCUPANTS of ADJACENT PROPERTIES of WORK THAT DISTURBS or REMOVES LEAD-BASED PAINT

To the Occupants of Adjacent Properties to the Property Located at: __________________________
(Location of property)

Notice is hereby provided that work that disturbs or removes lead-based paint will be in progress on the property located at __________________________
(Location of property)

on the following date(s): __________________________
(Dates of work that disturbs/removes lead-based paint)

While work is in progress, public access to the regulated work area will be prohibited. This notice is provided in accordance with San Francisco Building Code Section 3407.5.5.

Should you have questions regarding this work, please contact:

__________________________ at __________________________
(Name of property owner/contractor or representative) (Telephone/cell number)

致居住於鄰接物業的人士：

破損或去除含鉛底油漆的施工通告

致位於________________________物業的鄰接物業居住人士。

於下列日期: __________________________

特此通告位於________________________的物業在下列日期：________________________

(物業地點) (物業地點) (破損/去除含鉛底油漆的施工日期)

將會進行破損/去除含鉛底油漆的工程。當工程進行期間，公眾將被禁止進入受管制的施工範圍。通告是按照三藩市建築物條例第3407.5.5節發出。如果你對這工程有任何問題，請聯絡：

__________________________
(業主姓名/承建商或代表) (電話)

__________________________
(電話/流動電話)

AVISO sobre TRABAJOS QUE QUIEBRAN O REMUEVEN PINTURA A BASE DE PLOMO A RESIDENTES de PROPEDADES ADYACENTES

A los Residentes de Propiedades Adyacentes a la Propiedad Ubicada en ___________________________. Se les notifica que se llevarán a cabo trabajos que requieren quebrar o remover pintura a base de plomo en la propiedad localizada en ___________________________ en la/s fecha/s siguiente/s:

__________________________
(Ubicación de la Propiedad) (Fechas en que hará trabajo que quiebra o remueve pintura a base de plomo)

Durante el trabajo, se prohíbe al público la entrada al área restringida. Se les da este aviso de acuerdo con la Sección 3407.5.5 del Código de Construcción de San Francisco.

Si tiene preguntas respecto a estos trabajos, por favor póngase en contacto con:

__________________________ al __________________________
(Nombre del Dueño de la Propiedad/Contratista o Representante) (Número de teléfono/celular)

SFBC Sec. 3407.5.5
Form 7 - Rev. 9/0105
LEAD WORK
IN PROGRESS

PUBLIC ACCESS TO REGULATED
AREA PROHIBITED

POSTED IN ACCORDANCE WITH
S.F. BUILDING CODE SECTION 3407.5.4
DEPARTMENT OF BUILDING INSPECTION

鉛的工程在進行中
公眾被禁止進入
受管制的範圍內
按照三藩市建築法例第3407.5.4 節指示張貼
建築物檢察署

TRABAJO DE CONSTRUCCION CON PLOMO

SE PROHIBE LA ENTRADA
AL AREA DE TRABAJO

ADVERTENCIA SEGUN EL CODIGO DE
CONSTRUCCION
DE SAN FRANCISCO SECCION 3407.5.4
DEPARTAMENTO DE INSPECCION DE EDIFICIOS
SECTION 02090

LEAD-IMPACTED CONSTRUCTION AND ABATEMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This section specifies requirements for lead-impacted construction and lead hazard abatement including but not limited to:

1. Submittals
2. Contractor's Monitoring Program
3. Products
4. Lead Demolition/RRP Execution including:
   a. Work Area preparation
   b. Worker protection and decontamination
   c. Removal of loose and flaky paint
   d. Removal of Lead containing wood and metal fence components
   e. Removal of surface soil containing paint chips (where present)
   f. Removal of paint chips and flakes for horizontal surfaces (where present)
   g. Cleaning and decontamination
   h. Clearance inspection testing
   i. Waste characterization (as required)
   j. Hazardous Waste and Non-hazardous waste disposal
5. Stop work orders
6. Project closeout

1.02 REGULATIONS

A. The Contractor shall comply with the requirements of the current issue of the following regulations and guidelines governing lead abatement and disposal and other applicable Federal, State, and Local Government regulations. The regulations listed herein are incorporated by reference.

   a. 29 CFR 1926, Construction Standards
   b. 29 CFR 1926.62, Lead in Construction
   c. 40 CFR Part 50.12, Ambient Air Quality Standard for Lead
   d. 40 CFR Parts 261, 265 and 268, Hazardous Waste Management
1.03 RELATED DOCUMENTS

A. Contract Documents including hazardous material-related plans and specifications and all other project construction documents. Refer to Section 01011 Summary of Work, Article 1.04 Related Documents for a more detailed listing.

1.04 DEFINITIONS

A. In addition to the definitions in Section 01011 Summary of Hazardous Materials Work, the following definitions are specific to work of this section:

1. Lead Hazard Abatement -- Any set of measures designed to reduce or eliminate lead hazards.

2. Certified Lead Supervisor -- An individual who is responsible for implementing lead-related construction work and enforcing work practices that ensure worker safety in residential or public buildings and who has received a certificate or an interim certificate from the California Department of Public Health (CDPH) as a certified lead supervisor.

3. Certified Lead Worker -- An individual who performs lead-related construction work in residential or public buildings under the direction of a certified lead supervisor and has received a certificate from the California Department of Public Health (CDPH) as a certified lead worker and from a Federal EPA approved RPP Trainer.

4. Certificate -- “Certificate” means the document issued by the Department to an individual who meets the requirements for certification as described in sections 35083, 35085, 35087, 35089, or 35091of Title 17 and certification under the

2. California Code of Regulations:

a. 8 CCR Division 1, Chapter 4, Subchapter 4, Construction Safety Orders
b. 8 CCR 1532.1, Lead in Construction
c. 8 CCR 5144, Respiratory Protection
d. 26 CCR Division 22, Hazardous Waste
e. 17 CCR Division 1, Chapter 8, Accreditation, Certification and Work Practices for Lead-based Paint and Lead Hazards.


4. San Francisco Building Code, Chapter 36, Section 3604.3, Work Practices for Exterior Lead-Based Paint
Federal EPA RPP.

5. Child-Ocupied Facility -- “Child-occupied Facility” means a building, or portion of a building, constructed prior to 1978, visited regularly by the same child, under 6 years of age, on at least two different days within any week (Sunday through Saturday), provided that each day’s visit last at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day care centers, preschools and kindergarten classrooms. Child-occupied facilities may be located in target housing or in public or commercial buildings. With respect to common areas in public or commercial buildings that contain child-occupied facilities, the child-occupied facility encompasses only those common areas that are routinely used by children under age 6, such as restrooms and cafeterias. Common areas that children under age 6 only pass through, such as hallways, stairs and garages are not included. In addition, with respect to exteriors of public or commercial buildings that contain child-occupied facilities, the child-occupied facility encompasses only the exterior sides of the building that are immediately adjacent to the child-occupied facility or the common areas routinely used by children under age 6.


7. Component -- A structural element or fixture, including but not limited to a wall, floor, ceiling, door, window, molding, trim, trestle, tank, stair, railing, cabinet, gutter, or downspout.

8. CDPH -- “CDPH” means the California Department of Public Health.

9. Deteriorated Paint -- Paint or surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, or otherwise separating from a component.

10. Encapsulation -- All herein specified procedures necessary to coat or seal Lead containing coatings/surfaces with some durable coating which is applied as a liquid to the painted surface. Lead-free paint is not to be considered as an encapsulant. The encapsulating material shall be airtight, impermeable, and provide a semi-permanent barrier that can be expected to last 20 years. The encapsulant shall be approved for use by the District and Environmental Consultant.

11. Enclosure -- Accomplished by enclosing the Lead containing surface with a rigid and durable substance such as drywall, paneling, metal, vinyl or wood siding, or some other construction material. The enclosure must be dust-tight or sealed at all edges to provide a dust-tight enclosure. The construction materials used shall be approved for use by the District and Environmental Consultant.
12. Hazardous Waste -- Lead debris shall be classified as hazardous due to the characteristic of toxicity, as determined by testing in accordance with the California Code of Regulations, Title 22, Division 4, Chapter 30, Article 11. Any substance(s) listed in Article 11 Section 66699 at concentrations greater than their listed Soluble Threshold Limit Concentration (STLC) or Total Threshold Limit Concentration (TTLC) may need to be further characterized by the Toxicity Characteristic Leaching Procedure (TCLP) in accordance with 40 CFR 261 and other tests prior to disposal as a hazardous waste. Note: whole painted components or architectural debris with intact LBP is not typically expected to exceed hazardous waste criteria and may be evaluated by a consideration of the ratio of all materials in the waste to the lead content of the associated paint.

13. Industrial Building -- A structure that is used primarily for industrial activity, which is generally not open to the public, including but not limited to, warehouses, factories, and storage facilities. Industrial building does not include any structure which fits the definition of a public building or a residential building.

14. Intact LBP Components -- LBP components removed substantially intact with LBP firmly adhering to the surface. Examples are door, door trim, baseboards, etc., with intact paint. Also referred to as architectural debris with intact paint.

15. Lead-Based Paint (LBP) -- The concentration of lead in paint or other surface coatings in the amount of or equal to 0.5% lead by weight when analyzed by AAS or ICP-AES or 1.0 milligrams of lead per square centimeter (mg/cm²) as determined by XRF testing or as identified by specification.

16. Lead-Based Paint Related Waste -- Paint chips, vacuum dust, and debris, used cleaning articles, waste water, plastic sheets and other disposable items which were used during the Lead abatement process and as a result are considered lead contaminated waste or assumed hazardous waste pending further characterization.

17. Lead-Containing Paint/Surface Coatings -- The concentration of lead in paint or other surface coatings less than 0.5% lead by weight when analyzed by AAS or ICP-AES or 1.0 mg/cm² as determined by XRF testing or as identified by specification.

18. Lead-Contaminated Dust -- The amount of lead equal to, or in excess of, 40 micrograms per square foot (µg/ft²) for floor surfaces, 250 µg/ft² for horizontal window sills and 400 µg/ft² for window wells (troughs) and exterior horizontal surfaces.

19. Lead-Contaminated Soil -- Bare soil that contains an amount of lead equal to, or in excess of 400 parts per million (ppm) in children's play areas and 1,000 ppm in all other areas.
20. Lead-impacted Soil -- Bare soil that contain any amount of lead equal to, or in excess of 80 ppm in all unpaved areas including landscape areas, children’s play areas and areas used for planting edible plants.

21. Lead Hazard -- Deteriorated lead-based paint or lead-containing surface/coating material, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or lead-containing surfaces/coating materials or presumed lead-containing surfaces without containment, or any other nuisance which results in environmental lead contamination.

22. Lead Hazard Abatement -- Special abatement activities undertaken with the specific intent to eliminate or reduce existing lead hazards as defined herein. Not to be confused with abatement controls on normal lead-related construction work in construction areas with restricted access to the general public. In this latter case, lead is present in or on construction materials and is impacted by the work but is not the focus of the work to be undertaken.

23. Lead-Related Construction Work -- Any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential or public building, including preparation and cleanup that, by using or disturbing lead-containing materials, surfaces or soil, may result in significant exposure of adults or children to lead.

24. Lead Stabilization -- Process of controlled surface preparation using containment and wet methods and/or HEPA vacuuming to prepare a deteriorated LBP surface for painting and followed by application of approved primer and finish coats of paint. Process may be incorporated in a normal painting process for environmental protection.

25. Minor Repair and Maintenance Activities -- Minor repair and maintenance activities are activities, including minor heating, ventilation or air conditioning work, electrical work, and plumbing, that disrupt 6 square feet or less of painted surface per room for interior activities or 20 square feet or less of painted surface for exterior activities where none of the work practices prohibited or restricted by 40 CFR 745.85(a)(3) are used and the work does not involve window replacement or demolition of painted surfaces. When removing painted components, or portions of painted components, the entire surface area removed is the amount of painted surface disturbed. Jobs, other than emergency renovations, performed in the same room within the same 30 days must be considered the same job for purposes of determining whether the job is a minor repair and maintenance activity.

26. Pamphlet -- Pamphlet means the EPA pamphlet titled, “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools,” developed under CFR Section 406(b) of TSCA, or any State or Tribal pamphlet approved by EPA pursuant to 40 CFR 745.326 that is developed for the same purpose. This includes reproductions of the pamphlet when copied in full and without revision or deletion of material from the pamphlet (except for the addition of
27. Presumed Lead-Based Paint -- Any paint or surface coating affixed to a component in or on a structure, excluding paint or surface coating affixed to a component in or on a residential dwelling constructed on or after January 1, 1978 or a school constructed on or after January 1, 1993.

28. Public Building -- A structure which is generally accessible to the public, including but not limited to schools, daycare centers, museums, airports, hospitals, stores, convention centers, government facilities, office buildings and any other building which is not an industrial building or a residential building.

29. Qualified Person -- The individual identified by the Contractor to be responsible for conducting air sampling, calibration of air sampling pumps, evaluating sampling results, and conducting respirator fit tests.

30. Removal -- All herein specified procedures necessary to remove and clean-up all LBP and lead-containing surface coatings, lead-contaminated dust, and lead-contaminated soil from the designated areas and to dispose of these materials at an acceptable site in accordance with Federal, State and Local Regulations.

31. Renovation -- Renovation means the modification of any existing structure, or portion thereof, that results in the disturbance of painted surfaces, unless that activity is performed as part of an abatement as defined by 40 CFR 745.223. The term renovation includes (but is not limited to): The removal, modification or repair of painted surfaces or painted components; the removal of building components; weatherization projects, and interim controls that disturb painted surfaces. A renovation performed for the purpose of converting a building, or part of a building, into target housing or a child-occupied facility is a renovation under 40 CFR 745. The term renovation does not include minor repair and maintenance activities.

32. Renovator -- Renovator means an individual who either performs or directs workers who perform renovations. A certified renovator is a renovator who has successfully completed a renovator course accredited by EPA or an EPA-authorized State or Tribal Program.

33. Residential Building -- A structure which is used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons.

34. Training Hour -- Training hour means at least 50 minutes of actual learning, including, but not limited to, time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and hands-on experience.
35. Visually Clean -- Free of visible dust, paint chips, dirt, debris, or films removable by vacuuming or wet cleaning methods specified. For outside soil or ground cover areas, visually clean shall mean free of construction or paint debris, chips or dust distinguishable from the initial soil or ground conditions.

1.05 HAZARD COMMUNICATION

A. The Contractor shall refer to Specification Section 00335 – Existing Hazardous Materials Conditions for a list of all known or assumed hazardous materials including lead, asbestos, and other materials. All lead-related work shall be conducted with full consideration of any other hazardous materials impacted and required protective measures and controls.

1.06 SUBMITTALS AND NOTICES

A. Refer to Section 01011 Summary of Hazardous Materials Work for submittal requirements applicable to this Section and Section 01330 Submittal procedures unless otherwise noted.

1.07 ENVIRONMENTAL CONSULTANT

A. The Environmental Consultant is authorized to provide compliance observation and monitoring, testing, and technical oversight services for the lead-impacted construction and abatement work of this project without limitation.

1.08 CONTRACTOR'S COMPLIANCE AND QUALITY ASSURANCE

A. The Contractor shall have a Competent Person who is an EPA Certified Renovator onsite at all times while lead-related work or Lead/LBP abatement or while paint disturbing activities are in progress. The Contractor's Competent Person shall communicate and coordinate with the Environmental Consultant with regard to work schedules, inspections, daily submittals, and compliance issues.

B. The Contractor's Competent Person/Certified Renovator shall:

1. Ensure the Contractor's compliance with the plans and specifications.

2. Conduct worker exposure monitoring using a Qualified Person and provide results to the Environmental Consultant.

3. Pre-inspect Work Areas for compliance and completion prior to notifying the Environmental Consultant of the Work Area's readiness for inspection.

4. Accompany the Environmental Consultant during Work Area pre-start and clearance inspections.

5. Ensure all of the Contractor's workers have current and valid medical, blood-lead test, training, and respirator fit test records and provide copies of all new or
updated records to the Environmental Consultant for approval before assigning the workers to any work within Work Areas.

6. Ensure all of the Contractor's workers and subcontractor’s worker have current training pursuant to EPA Renovation, Repair and Paint (RRP) requirements before assigning the workers to any work within Work Areas.

7. Take timely and appropriate corrective actions to ensure compliance with the abatement plans and specifications and to eliminate unsafe, unhealthful, and environmentally unsound work practices regardless of whether or not they are brought to the Contractor’s attention by the Environmental Consultant.

8. Adhere by the results for the characterization of waste for proper packaging, labeling, storage, transportation and disposal of waste.

9. Provide completed daily project documentation to the Environmental Consultant at the end of each work day. This includes daily rosters, entry/exit logs, foreman reports, and any other project information.

1.09 SPECIAL PROVISIONS

A. The Contractor shall hold the District, District’s Representatives, Agents and Environmental Consultant harmless for claims, damages, losses, and expenses, including attorney’s fees, arising out of or resulting from the Contractor’s lead or other hazardous materials work, lead and hazardous materials spills on the site or enroute to the disposal site, or any other condition resulting from the Contractor’s non-compliance with regulation or the Contract Documents.

PART 2 - PRODUCTS

2.01 PROTECTIVE COVERING

A. Polyethylene sheets, of 6 mil thickness in size (dimensions) to minimize the frequency of joints.

2.02 CLEANERS

A. For clean-up and decontamination a lead-specific wash solution shall be used. Alternative cleaning and decontamination agents shall be subject to approval by the Environmental Consultant and District.

2.03 TAPE

A. Duct tape (or approved equivalent) two (2) inches or wider, capable of sealing joints of adjacent sheets of polyethylene sheeting and for attachment of polyethylene sheeting to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions.
2.04 PRIMER/SEALER

A. The primer/sealer paint applied after Lead removal and/or stabilization shall be compatible with the painting systems to follow under this contract.

2.05 ENCAPSULANT

A. Design is based on the following manufacturers. Products with like attributes may be considered.

1. Lead coat by Certane.
2. Encapsulastic 7000 series by Encapsulation Technologies Corporation.
3. Heavy Duty Trim Coating by Fibertec Coating Corp.
4. Lead Lock\textsuperscript{TM} Encasement System by Global Encasement, Inc.

B. If material cannot be tinted to desired color, two coats of approved latex enamel paint are to be applied over encapsulant.

C. Elastic acrylic coatings shall be warranted by the manufacturer to be heavy-bodied and compatible with the substrate they are applied to. Elastic acrylic coatings shall be long-lasting and resist cracking, peeling, algae, and fungus. Elastic formula should allow for some movement in walls without cracking. Coatings shall contain no hazardous ingredients by OSHA definition and be non-flammable.

2.06 SPRAY ADHESIVE

A. Provide spray adhesive in aerosol cans which is specifically formulated to stick to sheet polyethylene.

B. Spray adhesive for sealing polyethylene to polyethylene shall contain no methylene chloride compounds. Use only in a well-ventilated area. Use of such material shall not create, directly or indirectly, hazardous concentrations of chemicals in or around the work area, which can create, cause, or assist in creating a flammable or combustible environment.

2.07 DISPOSAL CONTAINERS

A. Provide six (6) mil thick polyethylene sheeting, six (6) mil leak-tight polyethylene bags and other impervious containers as required by applicable regulations. All waste shall be labeled as hazardous or potentially hazardous waste unless proven otherwise by appropriate sampling and laboratory analysis.

B. All hazardous waste shipping containers shall meet applicable DOT requirements.
2.08 WARNING SIGNS AND LABELS

A. Caution Signs: To be minimum of 20 x 14 inches and includes phrase "Caution Lead Hazard, Keep Out Unless Authorized" in minimum 2-inch high letters. These shall be posted at each approach to each lead Work Area.

B. CAL/OSHA Lead Warning Posters: "Warning - Lead Work Area, Poison, No Smoking or Eating" shall be posted at the entrance to each Work Area.

C. San Francisco Department of Building Inspection Warning Posters

D. Labels: Hazardous waste shall be labeled according to Federal, State and Local regulations including but not limited to the California Code of Regulations, Title 22, Chapter 30 and the U.S. Department of Transportation 49 CFR Parts 172, 173, 178 and 179.

2.09 PERSONAL PROTECTIVE EQUIPMENT

A. Personal protective equipment shall comply with the requirements of 8 CCR 1532.1 Lead.

B. Minimum protective clothing and equipment shall consist of fire-retardant, disposable, full-body coveralls, disposable boots, gloves, or equivalent in accordance with ANSI Z41. Sleeves at wrists and cuffs at ankles shall be secure.

C. Eye protection and hard hats shall be available and worn as required by applicable safety regulations and shall conform to ANSI 87.1 and ANSI 89.1. Eye protection shall be worn during demolition and paint removal work. Hard hats shall be worn during all exterior demolition work.

D. The Contractor shall provide Authorized Visitors with suitable disposable protective clothing, headgear, respirators, and footwear whenever authorized visitors are required to enter the Work Area. Up to an average of ten sets per day of suitable personal protective equipment shall be made available for authorized visitors.

E. All disposable clothing worn during each work shift shall be removed prior to exiting the Work Area and shall be properly segregated and placed in containers for proper waste characterization. The Contractor shall bear full responsibility for additional costs associated with waste profiling and disposal if wastes are not properly segregated.

2.10 RESPIRATORS

A. Provide workers with personally-issued respiratory equipment approved by NIOSH and suitable for the lead exposure level in the Work Area. Where respirators with
disposable filters are employed, provide sufficient filters for replacement as required by the worker or applicable regulation. HEPA Type P100 cartridges shall be used with respirators. Each respirator shall be washed whenever the worker wearing it showers or at least daily prior to storage. The following general conditions shall apply to respirator use:

1. All respirators used must be certified by NIOSH and a respirator program shall be established and implemented.

2. The minimum respiratory protection required for this project, unless otherwise specified in writing by the Environmental Consultant shall be a half-face negative pressure air purifying respirator. Otherwise, the respirators worn shall be selected based on measured or reasonably expected airborne concentrations of lead as follows:
   a. Half-face negative pressure air purifying respirator: up to 0.5 mg/m$^3$
   b. Powered air purifying respirator: up to 2.5 mg/m$^3$
   c. Type C supplied air respirator full face piece pressure demand mode: up to 100 mg/m$^3$.

   Note: Disposable respirators are not acceptable at any time. It is always permissible to upgrade to a more protective type of respirator.

3. During all segments of lead removal and clean-up activities, respirator usage shall be required of all persons within the designated Work Areas at all times regardless of airborne lead concentrations.

B. The Contractor is responsible for determination of airborne lead concentration levels for the Contractor's personnel and for providing and enforcing use of appropriate personnel respirator protection based upon airborne lead concentrations and this specification.

C. Respirators shall not be removed inside the Work Area. Workers shall proceed to the designated washing area and clean the external surface of the respirator body before removing the respirator.

2.11 TOOLS AND EQUIPMENT

A. Provide suitable tools for the removal of Lead containing materials and contamination including required HEPA negative pressure units, HEPA vacuums, ground fault interrupters (GFIs), ladders, scaffold, garden sprayers and airless sprayers. All tools and equipment brought onsite shall be clean and free of lead and other hazardous material contaminants. HEPA vacuums shall be labeled with a lead warning label and dedicated to Lead-related construction work to prevent commingling of lead wastes with asbestos and other wastes.

B. Provide enough support equipment, including but not limited to, lumber, nails, hardware, shower stalls, hoses, plumbing, drain pans, sump pumps, and waste water
storage drums to construct and operate the Decontamination Enclosure System(s) with showers. The number of showers shall be sufficient for the number of workmen scheduled on the job. The water hose used to connect the drain to the showers will not be used for any other purpose. The supply side water hose shall have a check valve to prevent backflow under any circumstance.

PART 3 - EXECUTION

3.01 GENERAL

A. All designated lead related work shall be conducted in accordance with this specification section, section 01011 and the project drawings. In addition, refer to Section 00335 and coordinate lead-related work with requirement for other hazardous material as applicable. The Contractor shall utilize the requirements as set forth for the method chosen and approved.

B. Public Warning and Safety Information to be Posted:

1. Post signs at all approaches to the Work Area entrance to read "Caution Lead Hazard - Keep Out Unless Authorized." In addition, post the CAL-OSHA Lead Hazard Warning Poster at the immediate Work Area entrance.

2. A list of phone numbers for the local hospital and for emergency squad, the local fire department, a representative of the Contractor who may be reached 24 hours a day, the Contractor's main office, the District's Representative and Environmental Consultant and any other professional consultants directly involved in the project.

3.02 PREPARATION FOR INTERIOR REMOVAL/ABATEMENT WORK

A. Move all non-fixed objects out of the Work Area(s). Such items shall be moved at least five (5) feet from Work Area(s).

B. Pre-clean entire floor area and all horizontal surfaces inside and within five (5) feet of the Work Area using HEPA vacuums and wet methods.

C. Cover all non-moveable objects within five (5) feet of the Work Area with six (6) mil polyethylene sheeting and seal with duct tape.

D. Cover all floors within the Work Area with two layers of six (6) mil polyethylene sheeting and seal with duct tape. All heater vents and registers shall be sealed with six (6) mil plastic sheeting and duct tape.

E. Install air lock flaps on all doorways into Work Area with plastic sheeting to form curtained doorways. Doors secured from the inside need not be sealed.

F. Provide, at minimum, 30 foot candle illumination lighting to the Work Area.

G. Install lead caution signage at each approach to the Work Area and lead warning
signage just outside each Work Area entry/exit point.

H. Complete any additional preparation work required by the specific component abatement/lead-related construction work requirements specified elsewhere in this section.

I. When Work Area preparation is complete, notify the Environmental Consultant and request an inspection. No abatement/lead-related construction work is to proceed in any Work Area until that Work Area preparation has been inspected and approved by the Environmental Consultant.

3.03 PREPARATION FOR EXTERIOR REMOVAL/ABATEMENT WORK

A. Cordon off the Work Area extending at a minimum of 15 feet horizontally beyond the area of work with barrier tape and warning signs as specified herein.

B. Pre-clean visible suspect lead-based paint dust and debris around and under areas where lead-based paint or LBP components will be removed. Use HEPA vacuums and wet methods to perform this cleaning which shall include, at minimum, the designated Work Area.

C. Cover ground and horizontal surfaces of Work Area (area within barrier tape) with a minimum of one layer of six (6) mil polyethylene sheeting. Secure the plastic on the building foundation as possible. Horizontal surfaces include scaffolding and/or other work platforms. Extend the plastic from the foundation to 15 feet beyond the Work Area. Seal all seams with tape and secure plastic to prevent undesired movement.

D. Provide a designated entry/exit point to exterior Work Areas suitable for workers to properly decontaminate and exit from the Work Area as specified herein. Install lead caution and warning signage as specified above.

E. Complete any additional preparation work required for the specific abatement method to be used.

F. Notify the Environmental Consultant when the Work Area is ready for inspection. Abatement and lead-related work shall not proceed until the Environmental Consultant has checked and approved Work Area preparations.

3.04 WORKER PROTECTION AND DECONTAMINATION PROCEDURES

A. The Contractor shall use only workers medically qualified and trained for lead work and respirator usage.

1. Medically-qualified shall mean that the worker has had an occupational medical exam for lead exposure and respirator usage within 12 months of abatement start-up and at any time during abatement or lead-related construction work. The contents of the medical exam must be in conformance with 8 CCR 1532.1 and must include a blood-lead test within 30 days of starting work on the project. At no
time shall the abatement worker exceed six months between each blood-lead testing.

2. Each lead abatement worker shall have successfully completed at least 24 hours of formal documented training in lead hazards and lead abatement methods and be a current CDPH Certified Lead Worker. Non-abatement workers performing lead related construction work shall have documented lead hazard communication training in accordance with 8 CCR 1532.1.

3. The Contractor's Competent Person shall have received at least 40 hours of formal training in lead hazards and lead abatement.

4. The Contractor's Supervisor(s) and workers shall be certified through the CDPH lead accreditation program for lead-related construction. Copies of each employee’s certification shall be provided.

5. The Contractor shall ensure that no worker is allowed onsite to perform lead-related work until the Environmental Consultant has received and approved all of that worker's medical, training and fit testing certifications.

B. Each worker and Authorized Visitor shall, upon entering the job site, enter the designated clean change room and remove street clothes, put on an inner reusable or disposable coverall and work shoes and then put on an outer set of full body disposable coveralls, booties or shoe covers, respirator with HEPA filters, and gloves before entering the Work Area.

C. Each worker and Authorized Visitor shall HEPA vacuum contamination from protective clothing, and then remove shoe covers before leaving one Work Area for another Work Area inside the same Work Area unless the Work Areas have been interconnected with a secured plastic sheet at least three feet wide.

D. When exiting an interior or exterior Work Area and leaving the specific building worked on, proceed to the designated area for unsuiting and remove outer protective clothing and equipment. Dispose of outer protective clothing as suspect Lead waste. Proceed to a designated shower area, remove and clean the respirator and store in a clean container. Wash hands and face and proceed to clean change area to re-suit for the next area.

E. At the end of the work day, all workers are to do the following in addition to those procedures described above: Place disposable outer garments and shoe covers in separate labeled waste containers dedicated to PPE for proper waste characterization; place reusable clothing for laundering in a closed container, clean protective gear including respirator, shower or wash hands and face at minimum, and put on clean street clothes in the clean room area.

F. All tools and equipment shall be decontaminated by HEPA vacuuming and wet wiping prior to being taken out of the Work Area. Tools and equipment with inaccessible internals shall be externally wet-wiped, bagged and sealed prior to being removed
from the Work Area.

G. Workers shall not eat, drink, smoke, or chew gum or tobacco at the work site within 20 feet of any Work Area as specified by the Environmental Consultant.

H. Provide and post the decontamination and work procedures to be followed by workers in the equipment area and in the clean area.

I. Each worker shall have a final medical blood-lead laboratory test within one week of job completion and before engaging in other lead related work.

3.05 REMOVAL OF LEAD CONTAINING COMPONENTS (by manual methods)

A. Remove any associated non-Lead containing hardware or construction interference (electrical and telephone utilities, conduit, piping, etc.) as required and store in construction area until final disposition is determined by the District's Representative.

B. Remove Lead containing components as specified herein and by the Contract Drawings. Scrape painted seam at edge of each component with utility knife or blade tool and remove any exposed accessible fasteners. Spray the affected surfaces of the Lead containing component being removed lightly with a fine mist of amended water.

C. Special precautionary controls shall be used as necessary to prevent Lead dust or debris from being carried or blown out of the controlled area by wind or air currents.

D. Using appropriate tools, begin to remove the Lead containing component by prying first behind nailing locations and/or removing accessible fasteners. Continue prying up the Lead containing component being careful not to break or create chipping until the Lead containing component is completely removed. Take necessary precautions to avoid damage to adjoining walls and/or associated surfaces.

E. Each component shall be carefully lowered to the ground, not dropped or thrown. Clean up dust and debris as removal proceeds.

F. Once removed, remove or flatten any remaining fasteners and wrap the Lead containing component in six (6) mil polyethylene sheeting, seal with duct tape, wet-wipe and transfer to secure waste storage for waste characterization.

G. HEPA vacuums and wet-wiping shall be used to ensure any resulting Lead dust, paint chips or debris have been cleaned up from horizontal surfaces and polyethylene sheeting prior to moving ladders, scaffolding, man-lifts or other working platforms to the next Work Area to be abated.

3.06 REMOVAL OF LEAD CONTAINING CERAMIC TILE

Method or work practice not used
3.07 REMOVAL OF WALL AND CEILING PLASTERS WITH LEAD-BASED PAINT

Method or work practice not used

3.08 REMOVAL OF LEAD CONTAINING COATINGS TO BE ABATED BY THE ENCLOSURE METHOD:

Method or work practice not used

3.09 ABATEMENT BY ENCLOSURE

Method or work practice not used

3.10 ENCAPSULATION OF LEAD CONTAINING SURFACES (Method or Work Practice not Used)

A. Encapsulation coatings shall be applied in accordance with the manufacturer's recommendations.

B. Remove surface dust and debris by scrubbing with detergent (tri-sodium phosphate 5%-10% solution) and rinsing. Remove loose paint and/or glazing until a sound, intact edge is achieved.

C. Encapsulation coatings shall be applied to the substrate in a continuous system as to seal the surface being coated. The number of coats required and coverage rates shall be in accordance with the manufacturers' recommendations.

D. Areas that are lifting and peeling after the application of the coating shall be repaired by scraping until sound adhesion of remaining paint coatings is obtained, feathering the edges and repainting.

E. Care shall be taken to protect adjacent surfaces and surface obstacles from damage from coating systems. Damages to non-protected adjacent surfaces and surface obstacles shall be repaired at the Contractor's expense.

3.11 REMOVAL OF LEAD CONTAINING SURFACES BY CHEMICAL REMOVAL (Method or Work Practice not Used)

A. Removal of Lead containing surfaces shall be by a Chemical Removal System approved for use by the Environmental Consultant.

B. The Contractor shall provide additional security measures as necessary to ensure non-abatement workers cannot gain access to chemicals and chemically-treated surfaces.

C. Material safety data sheets for each chemical substance and product used shall be onsite at all times and available for review by workers and Environmental Consultant.
D. The Competent Person shall review the contents of the material safety data sheets and the safe removal procedures with the workers prior to chemical removal.

E. Workers shall wear chemical goggles, face shields, impervious gloves, aprons, and booties over the standard protective clothing prior to starting chemical removal.

F. Stage or install temporary emergency eyewash capable of providing a 15-minute flush within the immediate Work Area if corrosive organic or corrosive inorganic paint removal (stripping) products are used. In addition, a shower shall be available onsite within 50 feet of the removal operation.

G. Chemical stripping agents (and neutralizers) shall be applied in accordance with the recommendations of the manufacturer. Remove all paint and/or glazing compounds down to the bare substrate. Ensure that the chemicals used and the associated removal methods leave a clean and smooth surface capable of accepting a suitable primer/sealer coating after final cleaning.

H. Containerize all paint and chemical waste in impervious containers labeled as hazardous waste.

I. Package all contaminated rags and protective equipment, and disposable cleaning items and plastic sheets in labeled impervious containers and transfer waste containers to secure waste storage units. The Contractor shall assume all such waste to be hazardous unless proven otherwise by objective waste characterization data.

J. Clean and decontaminate the Work Area in accordance with the procedures outlined herein.

K. Decontaminate all tools and equipment before removing them from the Work Area. Seal or bag up such equipment for transfer to the next Work Area or operation.

3.12 REMOVAL OF LEAD CONTAINING SURFACES BY MECHANICAL REMOVAL (Method or Work Practice not used)

A. Removal of lead containing surfaces by mechanical removal shall be performed within negative pressure enclosures.

B. All mechanical removal equipment and systems shall be approved by the Environmental Consultant. Such equipment includes but is not limited to needle guns, abrasive wheels, and roto-peen equipment.

C. All power tools shall be designed and equipped with HEPA-filtered exhaust systems.

D. The Contractor shall submit a separate workplan for containment of fugitive dust and debris emissions.

E. Work Area preparation and Lead coating removal shall be in accordance with approved work plan.
3.13 REMOVAL OF LEAD CONTAINING COATINGS BY ABRASIVE BLASTING METHODS

Method or Work Practice not Used

3.14 DRILLING/ANCHORING/CUTTING/ABRADING LEAD CONTAINING SURFACES

A. Prepare the Work Area as specified herein for lead abatement.

B. Remove all interfering structures (security bars, etc.) and store for replacement when work is complete.

C. Where installation of materials requires drilling, cutting, anchoring or abrading the Lead containing surfaces, the Contractor shall take additional appropriate precautions including, but not limited to, use of protective drop cloths, clean-up and decontamination of Lead dust and debris as specified herein.

D. Place plastic drop sheet below area of impaction.

E. Lightly moisten lead containing surface to be impacted.

F. Conduct impaction operations (i.e. drilling, anchoring, abrading, etc.)

G. Continue misting lead containing surface during impaction to control airborne dust.

H. HEPA vacuum and wet-wipe frequently to prevent accumulation and spread of lead-containing dust and debris.

3.15 LBP AND LEAD GLAZING STABILIZATION

Method or Work Practice not used

3.16 LEAD-IMPACTED SOIL REMOVAL

A. Prepare the Work Area as specified herein for lead abatement.

B. Remove all interfering structures and store for replacement when work is complete.

C. Place plastic drop sheet around limits of lead-impacted soil removal. Drop sheets shall extend at least 5 feet beyond the limits of excavation.

D. Lightly moisten soil surface to be excavated.

E. Conduct excavation operations (i.e. backhoe, hand removal, etc.)

F. Continue wetting exposed excavation surfaces during excavation to control airborne dust.
G. Minimize drop height from excavator and/or backhoe into storage container.

H. At conclusion of excavation, HEPA vacuum to remove dust and debris, wet-wipe drop sheets and remove

3.17 CLEANING AND DECONTAMINATION OF WORK AREAS

A. Daily Clean-up: Perform the following clean-up procedures daily.

1. Clean Work Areas until they are free of loose dust and debris to the satisfaction of the Environmental Consultant and/or District using HEPA and/or wet-wiping after pick-up of large debris.

2. Wet debris with a fine mist of water and collect material. All material to be properly segregated, bagged in 6-mil plastic bags, sealed, and moved to a designated, secure, waste storage area for waste characterization.

3. At the end of each work day the Environmental Consultant and/or District and the Contractor's Competent Person shall inspect work performed that day to ensure the work has been completed and no dust or residue remains on the areas removed and/or in the Work Area.

B. Final Clean-up and Decontamination: At completion of abatement perform cleaning as follows:

1. Remove all visible dust and debris as specified above.

2. Clean all Work Areas where abatement was performed by vacuuming all surfaces with a HEPA vacuum followed by wet-wiping with a high phosphate (tri-sodium phosphate) wash. The Contractor shall spray surfaces with a 5-10 percent tri-sodium phosphate (or approved equivalent) cleaning solution applied with a garden sprayer and wipe or mop surfaces with frequently changed clean towels, rags or mops.

3. Disassemble and remove containment barriers at each Work Area location after cleaning as specified above. Place polyethylene sheeting and tape into waste bags and remove to the temporary waste storage area.

4. Remove six (6) mil polyethylene sheeting on immovable objects and floors (where present) after misting with a high phosphate wash and wet-wiping. Place polyethylene sheeting and waste rags in segregated six (6) mil plastic bags, seal and store in a designated, secure, waste storage area for waste characterization.

5. Detergent solutions shall be replaced after each individual room is washed unless the spray application is used. If the wet vacuuming method is used, waste water shall be contained and disposed of properly after waste characterization testing.

6. The cleaning procedure used shall prevent spread of contamination and effectively clean surfaces while producing minimal waste.
7. All tools and equipment shall be sealed in six (6) mil plastic bags after being decontaminated using a high phosphate wash and wet-wiping prior exiting the Work Area.

8. Liquid cleaning wastes shall be filtered prior to containerizing for temporary storage pending hazardous waste characterization. Filter systems shall be able to remove particulate two microns and larger in diameter. Permits, if required, are the responsibility of the Contractor.

9. At least eight hours prior to completion and again upon completion of final clean-up and decontamination, notify the Environmental Consultant to obtain a final clearance inspection and testing.

3.17 FINAL CLEARANCE INSPECTION AND TESTING

A. Interior Clearance Inspection and Testing (not applicable, included for reference only).

1. After the final clean-up, the Contractor shall perform a complete visual inspection of the Work Area under adequate lighting to ensure the Work Area is free from visible debris, dust, waste bags, containers, and unnecessary equipment. The Contractor shall ensure that additional cleaning is completed if the area is not acceptably clean. The Contractor’s request for inspection will be recognized upon receipt of a completed and signed copy of the Lead Final Visual and Clearance Certification Form (Section 01011 – Appendix I). No inspections will be conducted without a completed and signed copy of the Lead Final Visual and Clearance Certification Form (Section 01011 – Appendix I).

2. Upon receipt of the Lead Final Visual and Clearance Certification Form (Section 01011 – Appendix I), the Environmental Consultant will perform the final visual clearance inspection. The clearance inspection will at minimum consist of the requirements as described in Chapter 15: Clearance, Sections II-VI, “Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing,” dated June 1995.

3. If the Work Area is not visibly clean, as determined by the Environmental Consultant, the Contractor shall re-clean and decontaminate as described herein at his own cost until the work area passes inspection.

4. A minimum of two hours is required between cessation of clean-up procedures and clearance dust-wipe testing.

5. All clearance dust wipe samples will be taken using the HUD sampling protocol by the Environmental Consultant.

6. Dust wipe samples will be collected using commercial wipes moistened with a non-alcohol wetting agent. When possible, areas of approximately one square foot will be selected from horizontal surfaces below or adjacent to where LBP components
were removed.

7. One dust wipe sample will be collected per abated area (doorway, utility room) and sent under proper chain of custody protocol to an accredited AIHA or EPA-CPL laboratory or equivalent as specified by the Environmental Consultant.

8. All dust wipe samples will be analyzed for lead using either AAS or ICP-AES for lead and results will be provided to the Contractor within two days of receipt of sample results.

9. The Contractor shall be released from each Work Area when all dust wipe samples from the area are below the following levels of lead:
   a. Floors: 40 micrograms per square foot (µg/ft²)
   b. Window Sills: 250 µg/ft²
   c. Window Troughs and Bare Concrete Surfaces: 400 µg/ft²
   d. Exterior Horizontal Surfaces: 400 µg/ft²

10. A Work Area shall be considered completed and cleared only after all areas within the Work Area have met the above criteria.

11. If any of the dust wipe samples exceed the clearance criteria, the entire Work Area must be cleaned and retested until the clearance criteria are met. As the building may be occupied, the Contractor shall coordinate with the District and Environmental Consultant to gain access for cleaning and re-inspection and clearance testing by the Environmental Consultant at the earliest time possible.

12. If a Work Area fails the clearance criteria specified above, the Contractor shall clean the entire Work Area at no additional cost nor increase to the contract sum and shall be responsible for associated additional Environmental Consultant fees. The Contractor shall pay all laboratory and delivery charges for additional dust wipe samples taken in each Work Area upon clearance failure.

B. Exterior Clearance Inspection. After the final clean-up by the Contractor, the Environmental Consultant shall conduct a visual inspection to ensure that all visible dust and debris has been properly removed. The Contractor must provide the Environmental Consultant at least 8 hours notice prior to scheduling final inspections. If the results of the final visual inspection are satisfactory to the Environmental Consultant, clearance dust wipe samples may be collected from horizontal surfaces. Upon obtaining acceptable clearance sample results, the exterior Work Area shall be released for unrestricted access. If the results of the inspection are unsatisfactory the contractor shall re-clean and decontaminate the Work Area prior to requesting another inspection by the Environmental Consultant.

C. Upon acceptance of the final results for clearance dust wipe sampling, the Environmental Consultant shall complete the Lead Final Visual and Clearance Certification Form (Section 01011 – Appendix I) and submit this information to the District and retain the original.
3.18 RE-INSTALLATION ON INTERFERENCE COMPONENTS

A. Upon completion of abatement and lead-related construction work, re-install fixtures, electrical utilities, telephone utilities and other components removed as construction interferences except for components scheduled for removal and disposal.

3.19 LEAD CONTAMINATION OF BUILDING OR ENVIRONMENT

A. In the event that removed paint dust or debris is not properly contained within the Work Area and thereby escapes, bypasses or penetrates established barriers, the Contractor shall stop work immediately, notify the Environmental Consultant immediately, and commence clean-up and decontamination procedures as described herein or directed by the Environmental Consultant.

B. For soil contamination, the Contractor shall remove all visible signs of paint dust and debris and, at minimum, the upper one-half inch of soil in the area contaminated and at least five feet beyond in each direction. Successful completion of soil decontamination shall be subject to evaluation by sampling at the discretion of the District and Environmental Consultant. Soil sample(s) with lead concentrations below pre-abatement composite soil sample results shall be the criteria for completion of soil clean-up and decontamination. The Contractor shall be responsible for all costs associated with disposal of any debris and contaminated soil, including waste characterization testing.

3.20 WASTE STORAGE, SEGREGATION, AND CHARACTERIZATION

A. The Contractor shall provide for secure onsite temporary storage of Lead related waste. Waste storage location, equipment, containers and methods are subject to prior approval by the District and Environmental Consultant.

B. Construction materials removed from lead abatement must be evaluated to determine waste characteristics prior to disposal. Except intact Lead containing components, all waste streams and waste categories shall be considered hazardous until proven otherwise. The Contractor shall be responsible for segregating waste into the following categories and conducting appropriate waste testing for lead (where not already performed):

1. Paint (LBP & non-LBP) and glazing, chips, dust and debris, HEPA vacuum waste, and used cleaning materials. The Contractor shall handle, store and dispose of these items as a RCRA hazardous lead waste without further characterization.

2. Painted wood fence components. The Contractor shall handle, store and dispose of these items as a RCRA hazardous lead waste without further characterization.

3. Plastic sheeting and tape. Except for plastic sheeting from chemical removal areas, these used items, if properly cleaned, should be non-hazardous. However, they shall be considered hazardous unless proven otherwise by lead waste testing.
4. **Disposable Protective Clothing and Equipment (PPE).** Disposable work clothes and other items potentially contaminated with LBP or lead, if properly cleaned, should be non-hazardous. However, they shall be considered hazardous unless proven otherwise by lead waste testing.

5. **Intact Lead containing components.** Architectural debris with intact Lead coatings must still undergo waste characterization to evaluate total and soluble lead concentrations pursuant to 40 CFR and 22 CCR regulatory requirements.

6. **Plaster debris (not anticipated).** Plaster debris with lead-based paint shall undergo waste characterization to evaluate total and soluble lead concentrations pursuant to 40 CFR and 22 CCR regulatory requirements.

7. **Ceramic tile debris (not anticipated).** Ceramic tile debris with lead levels greater than 1.0 mg/cm² shall undergo waste characterization to evaluate total and soluble lead concentrations pursuant to 40 CFR and 22 CCR regulatory requirements.

8. **Chemically Removed Paint/Glazing (not performed) -** shall undergo waste characterization to evaluate total and soluble lead concentrations pursuant to 40 CFR and 22 CCR regulatory requirements.

9. **Lead-impacted Soil –** where removed shall undergo full waste characterization to evaluate ignitable, corrosive, reactive and toxic characteristics of a hazardous waste (includes total and soluble lead and other heavy metals (CAM 17 List)) pursuant to 40 CFR and 22 CCR regulatory requirements.

C. Each Lead-related waste produced shall be placed in properly segregated, labeled and sealed, impervious containers.

D. Removed intact Lead containing components shall be properly segregated, wrapped in six-mil polyethylene sheeting, labeled and securely sealed with duct tape.

E. All waste containers, bags, and packaged waste shall be stored in a designated, secure, locked waste storage area and be labeled "PENDING ANALYSIS" with the following information:

   1. Waste Category
   
   2. Date Accumulated
   
   3. Name, address, District
   
   4. Origin of waste

F. HEPA vacuum and wet-wipe the exterior of all waste containers prior to removing them from the Work Area to the designated storage area.
G. All Lead-related waste, shall be considered hazardous until waste characterization has been performed under the California Code of Regulations, Title 22.

H. Each category of lead containing waste will be tested and characterized by the Contractor using one or more of the following testing protocols:

1. Cal-EPA testing protocol:

   a. Total Threshold Limit Concentration (TTLC): 1,000 ppm
   b. Soluble Threshold Limit Concentration (STLC): 5 ppm

2. Federal-EPA testing protocol:

   a. Toxicity Characteristic Leaching Procedure (TCLP): 5 ppm

I. All testing by the Contractor shall be subject to direct observation and review by the Environmental Consultant. At minimum, a TTLC shall be performed on each suspect waste stream. Based on the testing protocols, any waste greater than or equal to five (5) ppm lead or 10X applicable metal analyte STLC using STLC or TCLP tests or any waste greater than or equal to 1,000 ppm lead or applicable metal analyte TTLC using the TTLC test shall be considered a hazardous waste. See attached waste characterization flow chart.

J. When the TTLC is less than 50 ppm lead or 10x applicable metal analyte STLC, no further testing is required for that waste category sampled. A minimum of four samples will be taken to represent each category of waste generated. It will be the responsibility of the Contractor to ensure representative samples are taken from each category of segregated waste.

K. For lead-impacted soils, additional waste profiling may be required including the following: Petroleum hydrocarbons (gasoline, diesel, motor oil), volatile organic compounds (EPA 8260 VOC list), Semi-volatile organic compounds (EPA 8270 SVOC list), pesticides, herbicides, PCBs and RCI. Contractor is responsible for contacting the landfill facility to obtain necessary waste profiling requirements for disposal facility acceptance, collection and analysis of necessary soil samples and reporting.

L. The Contractor shall package, store, handle, transport and dispose of each category of waste generated based on the testing results obtained by the Contractor and reviewed by Environmental Consultant. Where landfills have more stringent requirements, the Contractor shall be responsible for all additional disposal costs.

M. Upon verbal request by the Environmental Consultant, the Contractor shall collect samples of Lead-related waste. The Contractor shall collect samples within full view and presence of the Environmental Consultant. Samples taken may entail cutting and removing sections of a component and clean-up of any resulting dust or debris.

N. The cost of all waste characterization or waste profiling required by the landfill will be the responsibility of the Contractor.
O. In the event that the Environmental Consultant has determined that waste is not properly segregated, additional waste testing may be conducted of the mixed waste stream. The Contractor shall be responsible for the costs associated with this additional testing.

P. The Contractor shall bear full responsibility for additional costs associated with waste disposal and characterization if waste is not properly segregated as required herein.

3.21 HAZARDOUS WASTE DISPOSAL:

A. Site Storage and Handling: The Contractor shall pay strict attention to the requirements of 40 CFR 262 and 265 and Title 22, Chapter 30 for the onsite handling of debris, with special attention given to the time of storage, amount of material stored at any one time, use of proper containers, and personnel training. All waste shall be stored in secure, locked, labeled, sealed impervious containers and not placed on the unprotected ground. All containers shall be shielded adequately to prevent dispersion of the debris by wind or rain and shall be labeled as hazardous waste. Any evidence of improper storage shall be cause for immediate shutdown of the project until a corrective action is taken.

B. Transportation and Disposal of Waste:

1. The Contractor shall arrange to have the Lead-related waste and debris and other waste streams determined to exhibit a characteristic of a hazardous waste (ignitable, reactive, corrosive or toxic) transported from the site in accordance with the requirements of 40 CFR 263 and 264, and disposed of properly in accordance with 40 CFR 268, GISO 8 CCR Articles 40 and 41, 49 CFR Parts 172, 173, 178, and 179 and Title 22, Chapter 30, Articles 5, 6, 6.5 and 8.

2. The Contractor shall submit to the District and Environmental Consultant the Name, Class, and EPA I.D. Number of the waste disposal site(s) to be used for each waste category which has been determined by testing to exceed the hazardous waste thresholds provided in Article 3.14, Paragraph H and Paragraph I and any Intact LBP component waste.

3. Where Lead related construction debris, including lead-impacted soil or waste soils are to be disposed of as a non-hazardous waste, a waste shipping manifest is still required and a copy shall be provided to the District and Environmental Consultant.

4. The Contractor shall prepare waste shipping manifests for review by the District. Upon waste or material pickup by the selected waste transporter, manifests shall be signed by the District or District's Representative and copies retained to verify that all steps of the handling and disposal process have been completed properly.

5. Copies of the landfill weight tickets shall be provided to the District and Environmental Consultant to verify the amount of waste disposed of at that site. The Contractor shall be responsible for all costs associated with transportation and
disposal of all wastes generated at the result of this work.

C. No waste characterized as hazardous waste shall be stored onsite for more than 90 days prior to being properly transported for disposal.

D. All equipment, materials, and waste generated on this project must be removed offsite to their proper locations by the Contractor within seven (7) calendar days from successful abatement completion and receipt of final clearance wipe testing results for lead related work.

E. Containers to be loaded for transportation from the storage area must be removed by workers who have entered from uncontaminated areas, dressed in clean coveralls.

3.22 STOP WORK ORDERS

A. The Environmental Consultant has the authority to stop work in accordance with Section 01011 Article 1.15. Examples of such conditions that might result in a work stoppage include but are not limited to:

1. Uncontrolled visible emissions which escape the established Work Area or breach physical protective barriers within the Work Area; and/or,

2. Ambient airborne levels of lead measured outside the construction area at more than 4.5 micrograms per cubic meters of air (mg/m$^3$) of lead averaged over an eight work period or the equivalent of 1.5 (mg/m$^3$) for any 24 hour period.

3. Unsecured Waste Storage Area and/or improper containment of abatement waste or LBP contamination.

3.23 PROJECT CLOSEOUT

A. Prior to approval of final payment request, the Contractor must provide the following information:

1. Copies of hazardous waste manifests, profile sheets and weight tickets for all hazardous wastes and manifests and weight tickets for non-hazardous wastes or recyclables consisting of architectural debris with intact paint.

B. All surfaces damaged during this work must be restored to their original condition except those surfaces scheduled for demolition as part of the renovation project.

END OF SECTION
CHARACTERIZATION OF LEAD WASTE

WILL YOU BE GENERATING HAZARDOUS WASTE?

Draw a representative sample

TTLC (Total Threshold Limit Concentration)
California State Test

<50 mg/Kg
NONHAZARDOUS WASTE
Check Class II or III Landfill Permit
Requirements if further testing is needed

≥50 mg/Kg to <1000 mg/Kg

≥1000 mg/Kg
HAZARDOUS WASTE
Class I Landfill (Kettleman City)
TCLP REQUIRED
Contact Landfill to find out if further testing is required

STLC (Soluble Threshold Limit Concentration)
aka W.E.T. Waste Extraction Test
California State Test

<5 mg/L
NON HAZARDOUS
Treatment not required

≥5 mg/L
HAZARDOUS
Treatment may be required

TCLP (Toxicity Characterization Leaching Procedure)
Federal EPA Test

<5 mg/L
NON HAZARDOUS
Treatment not required

≥5 mg/L
HAZARDOUS
Treatment may be required

**Always check your landfill of choice to confirm what the landfill's permit requirements are for waste testing**