

Site Specific Hazardous Material Abatement Work Plan

**Jobsite Location:
Pier 31 Building and Roof Repair Project
Port of San Francisco
San Francisco, California**

**Prepared By:
North Tower Environmental, Inc.
1485 Bayshore Boulevard, #185
San Francisco, CA 94124**

April 16, 2015

I. SUMMARY

This work plan is issued for the hazardous material scope work for Pier 31 Building and Roof Repair Project. The scope of work encompasses Pier 31, the adjoining Pier 29 ½ and rear apron. Building designations and a full description of project requirements and scope of work can be found in the project construction documents and plans. Contractor is responsible for reviewing the project construction document and plans. In general, the scope of construction work consists of selective demolition of building elements, repair of structural framing, roof and roof elements, windows, doors, ladders, restrooms; upgrades to power, mechanical, and plumbing, interior and exterior lighting and painting.

A limited asbestos, lead and PCB survey, in preparation for the planned construction, was conducted and by North Tower Environmental, Inc. and the report was issued on April 15, 2015. Asbestos was identified throughout the roof as well as in drywall systems, flooring, sink undercoat, window caulk and window sealants. Lead Based Paint (LBP) and Lead Containing Paint (LCP) were identified on surfaces throughout the exterior and interior of the buildings.

The scope of work covered by this abatement work plan includes the removal, handling, and disposal of hazardous materials. This work plan does not include non-hazardous material work performed as part of the overall project scope of work.

The Contractor shall complete the abatement work in full accordance with this work plan and meet all applicable requirements of the Port of San Francisco contractor documents for this project including Hazardous Abatement and Controls and Selective Demolition sections

II. PROJECT CONTACTS

Contractor:	To Be Determined
Main Office:	
Project Manager:	
Environmental Consultant:	North Tower Environmental
Project Manager:	Carolyn Henry: cell: (415) 740-8969
Field Supervisor:	Gary Lowe: cell: (415) 577-9207
San Francisco Department of Public Works Representative:	Carol Krop
Main Office:	(415) 554-8376
Port Of San Francisco Representative:	Tim Felton
Main Office:	(415) 274-0582

III. CONTRACTOR REQUIREMENTS

- A. See Construction architectural plans and document for all project requirements including all general notes and sheet notes.
- B. In accordance with Hazardous Abatement and Controls (Section 02130) of the contract documents, contractor must submit a Hazardous Materials Management Plan (HMMP) that provides the Contractor's comprehensive plan for the management of hazards encountered during the work of this project.
- C. Portions of the building will remain occupied during the project.
- D. Contractor is responsible for protecting all areas adjacent to the work area from being impacted by hazardous material (i.e. lead or asbestos).
- E. Contractor is responsible for protecting the building interior during roof and roof gravel removal, including isolating any occupied areas in the building while work is taking place.
- F. The Contractor must take special care must be taken to avoid any debris falling into the San Francisco Bay. These precautions and measure must be outlined in a written work plan.
- G. The Port will disconnect existing utilities and provide water and power. The Abatement Contractor is responsible for providing, installing, and removing temporary connections to these services, without damaging the building's equipment or disrupting these services to the facility.

- H. The Port will provide up to 2000 square feet of lay down area.
- I. Debris bins will be stored near and need to be stored/loaded over approved locations.
- J. Load limits are 3000 pounds per wheel for vehicles. Any equipment over 10,000 pounds must be approved by Port.
- K. The Contractor is responsible for determining site conditions, quantities and location of all work to be performed, prior to submitting bid for completing the work.
- L. By submitting a bid, the Contractor acknowledges investigation (through a site visit) and acceptance of the conditions affecting the work. These conditions include, but are not limited to, physical conditions of the site that may affect access; handling and storage of tools and materials; access to water and electricity or other utilities that may otherwise affect the performance of required activities. Staging areas and parking are be limited at the site. Locations of sanitary facilities, storage areas, parking and other Contractor facilities shall be subject to the prior approval of the Port of San Francisco.
- M. All abatement work must be conducted following all applicable federal, state and local regulations including, but not limited to, California Code of Regulations Title 8, Section 1529; Bay Area Air Quality Management District Regulation 11; and the San Francisco Municipal Code.
- N. The Abatement Contractor is responsible for all required notifications to regulatory agencies and other parties and to submit all required notification forms to applicable regulatory agencies within required time frames. Any variances requested from regulatory agencies must be reviewed and approved by SAR and NTE prior to submittal to the regulatory agency.

IV. SECURITY

- A. The Contractor to provide temporary fencing until demolition the project is complete.
- B. Containment structures and work areas shall be secured to restrict access. All work areas are to be clearly marked with caution tape and appropriate signage. The Abatement Contractor shall ensure that full access to emergency exits and to entrances to the structures and to surrounding facilities is maintained at all times.
- C. The abatement contractor shall be responsible for keeping work areas secured at all times, particularly during off-hours.
- D. Abatement Contractor is responsible for securing its own equipment, supplies, and facilities, including lifts, trucks, ladders, and job boxes.

V. SCHEDULE

- A. Work hours, schedule and phasing to be determine by project schedule.
- B. The Contractor and its subcontractors will be provided access to the work areas on a date to be determined by the Port of San Francisco. The scope of work for the project duration shall include all mobilization, abatement, repair, clearance and demobilization.
- C. Port of San Francisco personnel and their contractors are to have full access to the facilities during the work period. Access into the regulated area, where abatement is to take place, will not be available until clearance has been granted by NTE.

VI. DESCRIPTION OF WORK

- A. Remove asbestos containing materials identified in the Scope of Abatement Work listed below.
- B. Perform lead-related construction as identified in the Scope of abatement Work Listed below including.
- C. Perform other hazardous material work as identified in the Scope of abatement Work Listed below including.
- D. In accordance with Hazardous Abatement and Controls (Section 02130) of the contract documents, contractor must submit a Hazardous Materials Management Plan (HMMP) that provides the Contractor's comprehensive plan for the management of hazards encountered during the work of this project.
- E. The quantity below is presented as an "Approximate Amount". The Contractor is responsible for determining the actual quantity to be removed.
- F. Lead waste generated from stabilization of deteriorated painted surfaces, and other tasks where paint and lead-contaminated dust is a significant component of the waste stream (i.e. paint chips, roof gravel and associated dust and debris, sludge, solvent residues from strippers, liquid waste, etc.) should be expected to be hazardous waste. Note that the contractor is responsible for lead waste stream characterization.

SCOPE of HAZARDOUS MATERIAL ABATEMENT WORK

Asbestos Containing Materials

Building Material	Location	% Asbestos	Approximate Amount
Drywall/Taping Mud Wall and Ceiling Systems	1 st Floor Restroom Beneath Stairs And 2 nd Floor North Restrooms	0.25-0.50% (composite point count)	1,000 sf
Vinyl Floor Tile	Restrooms on 1 st Floor Restrooms and 2 nd Floor North Restrooms	2%	350 sf
Sheet Vinyl Flooring (black debris)	2 nd Floor South Restroom	40%	75 sf
Sink Undercoat	Sink outside of 2 nd Floor North Restroom	15%	10 sf
Roofing Mastics, Flashings, Penetrations	Throughout Roof Field (including Roof Monitor Roofs), Perimeter, Parapet, Parapet Caps, Flashings and around base of Roof Monitors	5-15%	142,259 sf
Window Caulk and Sealant	Throughout Roof Monitor Windows (caulk at glass and sealant between frame and building)	>1-5%	800 sf – Caulk 300 sf - Sealant
Window Caulk	Pier Building Windows-Remove where required to install new fan units (see project drawings)	>1-5%	3 Windows (12 window panes and associating framing)
Fire Core Doors	Pier 31 Building	Assumed ACM	5 doors

Lead-Related Construction Work

Building Material	Location	Approximate Amount
Lead-Contaminated Gravel and Associated Dust and Debris	Remove Throughout Roof (including Roof Monitors Roofs)	142,259 sf
Metal Roll-Up Doors	Spot Abate LBP on metal doors at cut lines (both interior and exterior paint).	5 doors (cut lines only)
New Door Opening at West Exterior	Spot Abate LBP at cut lines for new door opening (both interior and exterior paint).	1 door (cut lines only)
Steel Infrastructure	Spot Abate LBP on steel infrastructure for purpose of welding	15 sf
Lead-Containing Paint Stabilization ¹	Throughout: Stabilize LCP in all work areas. Extend stabilization out in a 2' radius from the boundary of each work area (i.e. trusses , structural framing, ceilings, columns, etc.)	Field Verify
	Roof Monitors: Stabilize Exterior LBP walls and interior LCP walls and ceilings	Field Verify
	Stabilize all surfaces in work area (interior and exterior) where painting is planned	Field Verify
Lead-Related Construction ²	LBP and LCP are present on all interior and exterior painted surfaces including: - Walls, Ceilings, Columns, Trim - Trusses and Structural Framing - Ladders - Ground surfaces (where painted) - Pipes, conduit, mechanical, vents, louvers, fire safety fixtures, devices and equipment (where painted) - Steel Infrastructure, Metal Angles Irons, Brackets, Bolts, etc.	

¹: Stabilization is the process of preparing a surface for repainting by which the areas of deteriorated paint are removed and an encapsulation coating (specifically made for application over lead-based paint) is applied to the area.

²: Perform work throughout project work areas in a manner that conforms with Cal/OSHA Construction Safety Orders-Lead, Section 1532.1, Title 8; California Code of Regulations and the California Department of Public Health (CDPH) Title 17; and the San Francisco Exterior Lead-Based Paint Ordinance

Other Hazardous Material Work

Building Material	Location	Approximate Amount
Light Fixtures, Mercury -Containing Fluorescent Light Tubes, Universal Waste Lamps and PCB Ballasts, Non-PCB Ballasts (assume DEHP Ballasts);	Remove in work area (interior and exterior) where removal is planned	Field Verify

VII. SUBMITTALS

The following items shall be submitted to, and approved by the Environmental Consultant before commencing abatement and stabilization work outlined in this work plan.

Pre-job Submittals (as designated):

- X BAAQMD Notification (10 working days in advance);
- X Cal/OSHA Asbestos Abatement Notification per 8 CCR 1529 (twenty four (24) hours in advance);
- X Cal/OSHA Lead Hazard Notification per 8 CCR 1532.1 (twenty four (24) hours in advance);
- X DHS Notification Form DHS 8551 (12/97) for Abatement of Lead Hazards
- X Notifications per San Francisco Exterior Lead-Based Paint Ordinance
- X Copy of current Contractors' State Licensing Board (CSLB) License;
- X Copy of Cal/OSHA Asbestos Registration Certificate;
- X Proof of all required permits or variances;
- X Abatement work schedule;
- X Abatement work plan(s);
- X Copies of workers' asbestos training certificates, including the Competent Person;
- X Copies of DHS Certified Lead Worker's and Supervisor's training certificates, as applicable;
- X Copies of workers' lead awareness training certificates;
- X Copies of workers' annual medical exam and respirator approval;
- X Copies of workers' twelve (12) month respirator fit testing records;
- X Copies of workers' blood lead test within past ninety (90)]days;
- X Material Safety Data Sheets (MSDS) for chemicals used;
- X Emergency phone and pager listing;
- X Independent third-party DOP testing of negative pressure units and vacuums;
- X Proposed location of locked dumpster; and
- X Rotometer calibrations within past six (6) months.

Periodic Submittals (as designated):

- X Personal air monitoring (daily);
- X Updated worker documentation (as needed);
- X Boundary access logs (daily);
- X Negative pressure records (daily); and
- X Copies of updated notification to regulatory agencies (as needed).

Project Close-out Submittals (as designated within two (2) weeks of completion):

- X Certificate of Completion;
 - X Receipt and weight tickets from landfill operator or recycler (as applicable);
 - X Copies of completed uniform waste manifests, including hazardous and non-hazardous waste;
 - X Abatement Contractor Waste profiling data (TCLP, WET and SW846, as applicable);
 - X Filter change logs for all filtration units, water filtration units (as applicable) and respirators;
 - X Foreman's daily job reports;
 - X Employee and visitor entry/exit logs for all containments;
 - X Manometer printouts for all applicable containments; and
 - X Air sample results for all personnel, work areas and air filtration units.
-