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November 12, 2012

Ms. Barbara Gualco Mercy Housing 1360 Mission Street, Suite 300 San Francisco, CA 94103

SUBJECT: HAZARDOUS MATERIALS INSPECTION MIDTOWN PARK APARTMENTS SAN FRANCISCO, CALIFORNIA

Dear Ms.Gualco:

NorBay Consulting is pleased to provide the analytical results from the hazardous materials inspection conducted in a limited number of apartments, parking garages and common areas at the Midtown Park Apartments in San Francisco, California.

Our inspection included the visual observation of suspect asbestos containing building materials, the collection of suspect building materials to determine asbestos content, if any, laboratory analysis, the collection of lead in paint readings utilizing a RMD direct reading instrument, visual inspections for mercury containing thermostats and light tubes, polychlorinated biphenyls (PCB) ballast and microbial growth and generation of a final report.

NorBay Consulting appreciates the opportunity to provide you with these services. If you have any questions regarding this report or if you require additional information please do not hesitate to contact me at (415) 507-9786.

Respectfully, NORBAY CONSULTING

Bob Gerhold

Bob Gerhold Certified Asbestos Consultant # 92-0157 CDPH Lead Inspector/Assessor I2108

EXECUTIVE SUMMARY

NorBay Consulting performed a hazardous materials inspection in a limited number of apartments, parking garages and common areas at the Midtown Park Apartments located at various addresses in San Francisco, California. The complex is scheduled to undergo renovation thus the need for this inspection as per Bay Area Air Quality Management District (BAAQMD) and Cal-OSHA regulations. Mr. Bob Gerhold, Cal-OSHA Certified Asbestos Consultant #92-0157 and CDPH Lead Inspector/Assessor #2108 and Mr. Greg Marszal, Cal-OSHA Site Surveillance Technician #96-1975 performed the inspection on October 31, 2012 and November 1, 2012.

This Executive Summary is provided solely for the purpose of overview. Any party who relies on this report must read the entire report. The Executive Summary may have omitted important details, anyone of which could be crucial to the proper understanding and risk assessment of the subject matter.

There are a total of six buildings on the site and twenty-four (24) units, the exteriors of all six buildings, the hallways in four buildings and the parking garages in two buildings were inspected. The building addresses and numbers are as follows:

- Building 1
 1415 Scott Street
- Building 2 2040 O'Farrell Street
- Building 3 2060 O'Farrell Street
- Building 4 1450 Divisadero Street
- Building 5 2141 Geary Boulevard
- Building 6 2121 Geary Boulevard

A total of two-hundred and sixteen (216) samples of suspect asbestos containing building materials were collected during the inspection. Upon analysis by Polarized Light Microscopy (PLM) the following material(s) were found to contain varying percentages of asbestiform minerals or are materials known to contain asbestos through previous documentation.

- Acoustical "popcorn" ceiling material throughout the complex;
- Non-drywall/taping mud throughout the complex;
- Textured drywall/taping mud throughout the complex;
- Sheet vinyl flooring in various units;
- Vinyl floor tile in various units;
- Exterior stucco on all of the buildings;
- Hard packed elbows in the 2040/2060 O'Farrell Street garage and assumed to be in the remaining parking garages;
- Fire doors in the 2040/2060 O'Farrell Street parking garage and assumed to be in the remaining parking garages;
- A limited amount of pipe insulation in the 2040/2060 O'Farrell Street parking garage and assumed to be in the remaining parking garages.

A total of seven hundred and thirty-eight (738) readings were collected of interior painted/coated surfaces during the inspection. In addition, calibration readings were also collected. For this report lead based paint includes readings ≥ 1.0 mg/cm₂, lead-containing paint includes readings \geq

 $0.1 \text{ to} \le 1.0 \text{ mg/cm}_2$ and no lead detected includes readings of 0.0 mg/cm}_2. It is extremely important to understand that XRF readings, which have a value of 0.0 mg/cm₂, do not necessarily mean there is "no lead present" but rather the level is below what the instrument can read.

The following building components/fixtures were found to contain either lead based paint or lead glazing:

- Porcelain bathroom sink in Unit 105 of 2060 O'Farrell Street;
- Porcelain bathroom sink in Unit 201 of 2060 O'Farrell Street;
- Porcelain bathroom sink(s) in Unit 100 of 1450 Divisadero Street;
- Porcelain bathroom sink in in Unit 102 of 1450 Divisadero Street;
- Porcelain master bathroom sink in Unit 106 of 1450 Divisadero Street;
- Porcelain bathroom sink(s) in Unit 300 of 1450 Divisadero Street;
- Porcelain bathroom sink in Unit 101 of 2141 Geary Boulevard;
- Porcelain bathroom sink in Unit 105 of 2141 Geary Boulevard;
- Porcelain bathroom sink(s) in Unit 108 of 2141 Geary Boulevard;
- Porcelain bathroom sink in Unit 201 of 2121 Geary Boulevard;
- Porcelain bathroom sink in Unit 209 of 2121 Geary Boulevard;
- Porcelain master bathroom sink in Unit 302 of 2121 Geary Boulevard;
- Porcelain bathroom sink in Unit 110 of 1415 Scott Street;
- Ceramic shower surround in Unit 103 of 1415 Scott Street;
- Porcelain bathroom sink(s) in Unit 302 of 1415 Scott Street;
- Porcelain bathroom sink(s) in Unit 100 of 2040 O'Farrell Street;
- Porcelain bathroom sink in Unit 101 of 2040 O'Farrell Street;
- Ceramic kitchen countertop in Unit 109 of 2040 O'Farrell Street;
- Porcelain bathroom sink in Unit 109 of 2040 O'Farrell Street;
- Porcelain bathroom sink in Unit 304 of 2040 O'Farrell Street;
- Exterior metal green doors and doorframes on 2040 O'Farrell Street;
- Exterior metal handrail on the east side of 2060 O'Farrell Street;

Only a limited number of light fixtures containing mercury florescent light tubes and suspect PCB ballasts were observed during the inspection. Two light fixtures were disassembled and the ballasts were found to contain non-PCB ballasts.

Typical mold/mildew was observed in most every unit, specifically in the bathrooms. Microbial growth, beyond what would be considered typical was observed in the following locations:

- The lower bathroom of Unit 100 in 1415 Divisadero Street;
- The lower bathroom of Unit 300 in 1415 Divisadero Street;
- Both bathrooms of Unit 110 in 1415 Scott Street;
- Both bathrooms of Unit 103 in 1415 Scott Street;
- Bedroom 2 of Unit 104 in 1415 Scott Street;
- Bathroom 1 of Unit 302 in 1415 Scott Street.

A more detailed presentation of procedures and findings is presented in the body of this report. Also included is a discussion of recommendations and regulatory considerations.

SITE INFORMATION

The subject site is known as the Midtown Park Apartments and the six buildings which make up the complex all have separate addresses. The complex includes one hundred and thirty-nine units and six parking garages.

As part of the inspection the interior of twenty-four (24) units were inspected for asbestos, lead paint, microbial growth, mercury containing thermostats/light tubes and PCB light ballasts.

Materials suspected to contain asbestos and which may be disturbed during renovation activities included textured and non-textured drywall/taping mud, acoustical "popcorn" ceiling material, various patterns of sheet vinyl flooring, vinyl floor tile, exterior stucco and paint and thermal system insulation in the parking garages.

ASBESTOS SURVEY PROCEDURES

NorBay Consulting identified homogeneous areas of materials, which were suspected of containing asbestos. A homogeneous area, for bulk sampling purposes, is one that seems by texture, color and wear to be uniform and applied during the same general time period. After the homogeneous areas had been identified, representative bulk sample(s) are collected for laboratory analysis. Because asbestos-containing building materials have compositional variability, it is possible to obtain different laboratory results for samples from the same homogeneous area. Therefore, a homogeneous area with at least one positive sample for will result in the entire homogeneous area being designated as an asbestos containing material.

The sampling strategy employed by NorBay Consulting was partially based on guidelines established by the Environmental Protection Agency (EPA) for school buildings (40 CFR Part 763, AHERA) which require that samples be collected from each homogeneous area of suspected ACM. Upon completion of the inspection and bulk sampling, the samples were delivered under chain of custody protocol to Forensic Analytical of Hayward, California for analysis by Polarized Light Microscopy (PLM).

SAMPLE ANALYSIS

Bulk samples were examined by Polarized Light Microscopy (PLM) in accordance with EPA Test Method 600/R-93/116, "Method for the Determination of Asbestos in Bulk Building Materials".

The percentage of asbestos is determined by visual estimation. Laboratory results are reported based on the percentage of asbestiform minerals identified within each sample layer. The lower limit of reliable detection by PLM is 1% by volume. When asbestos or other minerals are observed in concentrations believed to be less than the reliable detection limit (less than 1%) the results are usually indicated as TRACE. Samples found to contain < 1% asbestos were further analyzed by the NESHAP point counting method to verify that the material truly contained < 1% asbestos.

Upon analysis the analytical results are compared to government agency standards. Currently, both the California Occupational Safety and Health Administration (Cal-OSHA) and the Environmental Protection Agency (EPA) define material with contains more than one percent

asbestos to be an asbestos containing material (ACM). In addition, Cal-OSHA defines any manufactured construction material containing more than 0.1% by weight as asbestos containing construction materials (ACCM).

Cal-OSHA also requires notification and registration of the contractor when disturbing materials with more than one-tenth of one percent and regulates worker protection whenever materials containing any detectable levels of asbestos are to be disturbed.

RESULTS

The following <u>suspect</u> asbestos containing materials were identified and sampled during our inspection.

- Textured and non-textured drywall/taping mud;
- Sheet vinyl flooring;
- Vinyl floor tile and associated mastic;
- Acoustical "popcorn" ceiling material;
- Plaster walls and ceilings;
- Exterior paint;
- Exterior stucco;
- Hard packed pipe fittings/elbows;
- Fire door insulation;
- Pipe insulation;
- Canvas wrap over pipe insulation.

Upon analysis by Polarized Light Microscopy (PLM) the following materials were found to contain detectable levels of asbestos or are materials known to contain asbestos from previous documentation:

- Acoustical "popcorn" ceiling material throughout the complex;
- Non-drywall/taping mud throughout the complex;
- Textured drywall/taping mud throughout the complex;
- Sheet vinyl flooring in various units;
- Vinyl floor tile in various units;
- Exterior stucco on all of the buildings;
- Hard packed elbows in the 2040/2060 O'Farrell Street garage and assumed to be in the remaining parking garages;
- Fire doors in the 2040/2060 O'Farrell Street parking garage and assumed to be in the remaining parking garages;
- A limited amount of pipe insulation in the 2040/2060 O'Farrell Street parking garage and assumed to be in the remaining parking garages.

Please refer to the table at the end of this report for locations and results of asbestos bulk sampling.

REGULATORY CONSIDERATIONS

Current EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations require that most ACM be removed prior to demolition or renovation activities. Other regulations apply to construction activities and notification requirements for projects involving ACM/ACCM. At both the federal and state levels, these include, but are not limited to Federal OSHA regulation 29 CFR 1910 and 1926, the California Health Code, California OSHA 8 CCR 1529 and Proposition 65 which requires the posting of notifications when a facility is known to contain toxic substances found on the governors list.

As previously mentioned in this report both the California Occupational Safety and Health Administration (Cal-OSHA) and the Environmental Protection Agency (EPA) define material with contains more than one percent asbestos to be an asbestos containing material (ACM). In addition, Cal-OSHA defines any manufactured construction material containing more than 0.1% by weight as asbestos containing construction materials (ACCM). Cal-OSHA also requires notification and registration of the contractor when disturbing materials with more than one-tenth of one percent and regulates worker protection whenever materials containing any detectable levels of asbestos are to be disturbed.

RECOMMENDATIONS

Bay Area Air Quality Management District (BAAQMD) Regulation 11-2-401.3 requires that for every demolition or renovation involving the removal of 100 square/linear feet or greater of Regulated Asbestos Containing material (RACM), a notification must be made to the BAAQMD at least ten working days prior to commencement of demolition/renovation activities. In addition, BAAQMD requires removal, prior to renovation and/or demolition of regulated asbestoscontaining materials (RACM), i.e; materials with asbestos content of greater than 1% that are friable (can be crumbled, pulverized or reduced to powder by hand pressure) or may become friable during renovation or demolition. Non-friable asbestos containing materials containing greater than 1% asbestos are also considered to be RACM if they are subjected to sanding, drilling, grinding, cutting, abrading or may become friable during demolition/renovation activities.

NorBay Consulting recommends that if any of the asbestos containing materials are scheduled to be disturbed as part of the renovation that a licensed asbestos abatement contractor be utilized to remediate the material prior to renovation. The contractor chosen to perform the work must be familiar with and abide by the strict rules and regulations regarding the removal, packaging and disposal of asbestos containing materials and/or materials containing detectable levels of asbestos.

LEAD IN PAINT XRF SURVEY PROCEDURES

The sampling strategy employed by NorBay Consulting was performed as outlined in Title 17, California Code of Regulations, Division 1, Chapter 8 and in accordance with those survey procedures listed in the "Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing", June 1995 by the U.S. Department of Housing and Urban Development (HUD). Our investigation included the collection of readings on similar painted surfaces (not every component in every room as dictated by HUD guidelines.)

Prior to data collection painted/coated surfaces were categorized into distinct areas of homogeneity, substrate material, building material and/or distinct paint type. After the items have been identified, a representative reading of the painted/coated surface is collected. Because painted/coated have compositional variability due to one or more paint layers, it is possible to obtain different readings for samples from the same homogeneous area. Therefore, a homogeneous area with at least one XRF reading of 1.0 mg/cm2 or greater will result in the entire homogenous material, substrate and/or distinct paint type being designated as lead based paint.

SAMPLE ANALYSIS

The XRF testing was performed in accordance with the aforementioned criteria, using an RMD-LPA-1 XRF Analyzer. Exposure times are internally determined by the instrument and are based on a number of factors including lead content, substrate and source strength. The instrument is calibrated to the manufacturer's specifications and was periodically verified against known lead standards produced by the National Institute of Standards and Testing.

HUD defines action level as the hazard level for which a corrective response action will be required. Currently, the most widely used action level for lead-based paint (LBP) is 1.0 mg/cm2 (as measured by an XRF) established by HUD and adopted by the U.S. Environmental Protection Agency. The action level is 5000 parts per million (pip) or 0.5% by weight when collected paint chip samples are analyzed using atomic absorption spectroscopy (AAS). HUD guidelines consider XRF findings of 1.0 mg/cm2 or greater, as lead based paint, which may be a potential hazard. It is extremely important to understand that XRF readings, which have a value of 0.0 mg/cm2, do not necessarily mean there is "no lead present".

RESULTS

During our investigation a total of seven hundred and thirty-eight (738) XRF readings were collected of various interior and exterior building components. The following building components or fixtures were found to contain lead based paint or lead in the glazing:

- Porcelain bathroom sink in Unit 105 of 2060 O'Farrell Street;
- Porcelain bathroom sink in Unit 201 of 2060 O'Farrell Street;
- Porcelain bathroom sink(s) in Unit 100 of 1450 Divisadero Street;
- Porcelain bathroom sink in in Unit 102 of 1450 Divisadero Street;
- Porcelain master bathroom sink in Unit 106 of 1450 Divisadero Street;
- Porcelain bathroom sink(s) in Unit 300 of 1450 Divisadero Street;
- Porcelain bathroom sink in Unit 101 of 2141 Geary Boulevard;
- Porcelain bathroom sink in Unit 105 of 2141 Geary Boulevard;
- Porcelain bathroom sink(s) in Unit 108 of 2141 Geary Boulevard;
- Porcelain bathroom sink in Unit 201 of 2121 Geary Boulevard;
- Porcelain bathroom sink in Unit 209 of 2121 Geary Boulevard;
- Porcelain master bathroom sink in Unit 302 of 2121 Geary Boulevard;
- Porcelain bathroom sink in Unit 110 of 1415 Scott Street;
- Ceramic shower surround in Unit 103 of 1415 Scott Street;
- Porcelain bathroom sink(s) in Unit 302 of 1415 Scott Street;
- Porcelain bathroom sink(s) in Unit 100 of 2040 O'Farrell Street;
- Porcelain bathroom sink in Unit 101 of 2040 O'Farrell Street;
- Ceramic kitchen countertop in Unit 109 of 2040 O'Farrell Street;

- Porcelain bathroom sink in Unit 109 of 2040 O'Farrell Street;
- Porcelain bathroom sink in Unit 304 of 2040 O'Farrell Street;
- Exterior metal green doors and doorframes on 2040 O'Farrell Street;
- Exterior metal handrail on the east side of 2060 O'Farrell Street;

The majority of components/fixtures containing either lead based paint or lead glazing were porcelain sinks. These materials pose little health risks when they are intact. When removing these fixtures the bolts should be removed instead of demolishing the sink. The same goes for ceramic tiles, if removed relatively intact minimal lead exposure would be expected.

In addition, certain building components contained detectable levels of lead which would also subject the disturbance of these materials to Cal-OSHA regulations. (See Construction Work Standards Section.) For a complete listing of readings see the attached XRF Readings sheet.

REGULATORY CONSIDERATIONS / RECOMMENDATIONS

Current EPA and HUD guidelines recommend that surfaces containing lead based paint in damaged condition to be considered "lead-based paint hazards" and should be addressed through abatement (permanent removal) or interim controls (temporary). Surfaces containing lead based paints in intact condition should be monitored, but are not considered to be "lead based paint hazards".

At the time of our inspection no building components contained damaged lead based or lead containing paint.

Construction Work Standards

At present, there are no state or federal laws dealing with mandatory abatement following the identification of lead containing or lead based paints prior to disturbance. However, in 1993 the Occupational Safety and Health Administration promulgated legislation (29 CFR 1926.62 and 8 CCR 1532.1) entitled "Lead Exposure in the Construction Industry" which deals with worker exposure to lead. It should be noted that aside from the HUD definition of lead-based paint (1.0 mg/cm²), OSHA regulates worker protection and work practices on building components containing any detectable amounts of lead. Therefore, components determined to contain less than 1.0 mg/cm² may still be subject to OSHA regulations, if these materials are to be disturbed. This standard essentially states that work, involving components containing any amount of lead must follow certain guidelines. These guidelines include but are not limited to training, personal protective equipment and specific work practices whenever workers disturb lead in any concentration because the disturbance may result in airborne exposures over action or permissible exposure limits.

This legislation requires that any task that may potentially expose workers to any concentration of lead be monitored to determine workers eight-hour time weighted average (TWA) exposure to lead. Prior to conduction of activities that may generate a lead exposure, such workers must be properly fitted with respiratory protection and protective clothing until personal eight-hour TWA results reveal exposures within acceptable levels. Any proposed renovation/demolition, which may involve the removal of building materials with lead based and/or lead containing painted surfaces, should include provisions to minimize the potential for airborne release of lead contaminated dust. It is recommended, as a minimum, that demolition of building materials which

have lead-based and/or lead-containing paints be conducted with the materials kept in a wetted state and removed in sections, as feasible, to reduce the potential for airborne lead emissions.

MERCURY CONTAINING MATERIALS AND PCB BALLASTS

A limited number of mercury containing fluorescent light tubes were observed, mainly in the parking garages during our inspection. In California, the Cal-EPA Department of Toxic Substances Control regulates the management of spent fluorescent light tubes and mercury vapor lamps destined for disposal because fluorescent lamps contain small quantities of mercury, cadmium and antimony. Fluorescent light bulbs/vapor lamps have been classified as a "Universal Waste" under the California "Universal Waste Rule". This rule became effective on February 8, 2002 and allows common, low hazard wastes to be managed under less stringent requirements than other hazardous wastes.

As of February 9, 2006 large and small quantity generators are required to ship their "Universal Waste" to either a universal waste transfer station, a recycling facility or a disposal facility (Title 22, Division 4.5, Chapter 23, Section 66273.8). If the fluorescent light tubes and mercury vapor lamps are not recycled, then they must be manifested and disposed of in a Class I landfill.

If these light tubes are to be replaced, precautions should be utilized to reduce the amount of light tube breakage due to the potential release of mercury containing particles. No mercury containing thermostats were observed during our inspection.

In addition to mercury containing fluorescent light tubes/bulbs light fixture ballasts may contain polychlorinated biphenyls (PCB's). All ballasts manufactured through 1978 are magnetic ballasts that may contain PCB's. Almost all older fluorescent light fixtures have PCB ballast because the use of PCB containing items was allowed to continue beyond the original 1978 TSCA ban. Since the supply of PCB containing ballasts likely lasted for several years after the ban took effect, any building/structure built before 1980, without a complete lighting retrofit, is likely to have PCB ballasts.

Magnetic ballasts manufactured after 1978 that do not contain PCB's are labeled "No PCB's" or "PCB Free". Electronic ballasts are PCB-free and should be clearly marked as electronic. If a ballast has no manufacture date or is not specifically labeled "No PCB's or PCB Free" it should be assumed to contain PCB's.

A large number of light fixture ballasts were observed in the various structures. A total of two ballasts were inspected and the verbiage "No PCB's" was observed on both of the ballasts. NorBay Consulting still recommends that all light fixture ballasts be removed and checked for PCB's prior to removal of the fixture. Any PCB ballast located should be removed, packaged and disposed of as PCB containing waste.

MICROBIAL INVESTIGATION

Visual inspections for microbial growth was conducted in each of the twenty-four inspected for asbestos and lead paint. The presence of microbial growth is typically found in, but not limited to bathrooms, under sinks and around windows. Please note that our inspection was limited to visual observations. No drilling into walls was conducted in an effort to determine if microbial growth may have been present on the backside of drywall or other building

materials/components. The majority of the units did have some mold/mildew in the bathrooms and around window however, microbial growth, beyond what would be considered typical was observed in the following locations:

- The lower bathroom of Unit 100 in 1415 Divisadero Street;
- The lower bathroom of Unit 300 in 1415 Divisadero Street;
- Both bathrooms of Unit 110 in 1415 Scott Street;
- Both bathrooms of Unit 103 in 1415 Scott Street;
- Bedroom 2 of Unit 104 in 1415 Scott Street;
- Bathroom 1 of Unit 302 in 1415 Scott Street.

Removal of microbial growth, especially on asbestos containing drywall/taping mud should be conducted by asbestos certified remediation companies with experience in mold remediation also.

LIMITATIONS

NorBay Consulting conducted this inspection and prepared this report for the sole and exclusive use of Midtown Park Apartments, the only intended beneficiary of our work. NorBay Consulting has performed this inspection in a substantial and workmanlike manner, in accordance with generally accepted methods and practices of the profession, and consistent with that level of care and skill ordinarily exercised by reputable environmental consultants under similar conditions and circumstances.

Please note that no subsurface investigation was conducted to determine if asbestos cement "transite" electrical or water utilities were present.

Enclosed you will find the laboratory reports and chain of custody form for all asbestos bulk samples collected. In addition, all XRF readings are also included. If you have any questions regarding this report or if you require additional information please do not hesitate to contact me at (415) 507-9786.

Sincerely, NORBAY CONSULTING

Bob Gerhold

Bob Gerhold Certified Asbestos Consultant #92-0157 CDPH Certified Lead Inspector/Assessor I2108

LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS

POLARIZED LIGHT MICROSCOPY (PLM)

XRF READINGS

Readings in green indicate lead containing paint/glazing

Readings in gray indicate lead based paint or glazing

AREAS INSPECTED WITH ASBESTOS RESULTS