### PROJECT MANUAL

#### PROJECT NAME AND LOCATION:

Cascadian Fire Alarm System All 14 Buildings

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**Contract Number: HW2201531** 

#### Invitation to Bid

King County Housing Authority (KCHA) will accept bids from qualified general contractors to furnish labor, materials and necessary equipment to perform the following:

**SCOPE OF WORK:** Work includes, but is not limited to, removal of existing fire alarm control panel and all devices; provide a new fire alarm control panel and all devices as listed, and other tasks as described in the bid documents.

#### PROJECT MANUAL DISTRIBUTION:

Address: King County Housing Authority, 600 Andover Park, Seattle, WA 98188

Distribution: \* Documents are available for download on KCHA's website at

http://www.kcha.org/business/construction/open/

#### **PRE-BID CONFERENCE:**

Date and Time: August 9, 2022 at 10:00 A.M.

Jobsite Address: Cascadian Apartments, 15517 NE 12th Street, Bellevue, WA 98007.

In Addition: Contractors are strongly encouraged to attend the Pre-Bid Conference.

Failure to attend the Conference will not relieve the Contractor of any

responsibility for information provided at that time.

For Questions: Questions pertaining to the bid are to be sent via email to Michelle J@kcha.org

no later than seven (7) calendar days prior to bid due date. All responses shall

be in the form of Addenda.

Posting: Addenda will be posted on KCHA's website.

**BIDS ARE DUE:** 

Time: **2:00 P.M.** 

Date: August 25, 2022

Address: King County Housing Authority

600 Andover Park West, Seattle, WA 98188

Submittal Process: \* Bids may be sent to Michelle Jackson by email to Mich

Process: All Bids must be received by KCHA no later than the above due date and time. No

Bids will be accepted after that date and time.

#### **BID GUARANTEE:**

Amount: Five (5%) Percent of the Total bid must accompany Each Bid

Payable to: King County Housing Authority

**PERFORMANCE AND PAYMENT BONDS:** As a condition of award Performance and Payment bonds for 100% of the Contract Award Amount shall be furnished for the Work.

KCHA is an Equal Employment Opportunity Employer and strongly encourages minority-owned and womenowned businesses, socially and economically disadvantaged businesses, and small businesses to submit bids or to participate as subcontractors and suppliers on KCHA Contracts.

KCHA reserves the right to reject any or all bids or to waive any informality in the bidding. No bid shall be withdrawn for a period of 60 calendar days subsequent to the opening of the bids without the written consent of KCHA.

CONTACT PERSON: Michelle Jackson at Michelle J@kcha.org

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#### SECTION 01100 - SUMMARY

#### PART 1 - GENERAL

#### 1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Fire Alarm System Upgrades
- B. Project Location: Cascadian Apartments, 15517 NE 12<sup>th</sup> St. Bellevue, WA 98007
  - 1. All 14 Buildings: 197 Units plus 1 Office Unit.
    - a. 9 Buildings with 6 one bedroom units and 6 two bedroom units
    - b. 5 Buildings with 6 one bedroom units and 12 two bedroom units
- C. Work includes but is not limited to:
  - 1. Removal of existing fire alarm control panel and all devices.
  - 2. Provide a new fire alarm control panel and all devices as listed.

#### 1.2 WORK SEQUENCE

- A. The Work shall be completed in 90 calendar days from the date of Notice to Proceed.
- B. Contractor will submit written schedule outlining dates and duration of job including:
  - 1. Construction start date
  - 2. Schedule for work in each building
  - 3. Anticipated final completion date

#### 1.3 LIQUIDATED DAMAGES

A. Liquidated damages will be assessed for each calendar day that the Contractor exceeds the time for completion in the amount of \$250.

#### 1.4 WORK RESTRICTIONS

- A. Use of the Premises
  - 1. Use of Site: Limit use of premises to work areas. Do not disturb portions of site beyond areas in which the Work is indicated.
    - a. Owner Occupancy: Allow for resident occupancy of site. Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate resident usage.

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b. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to residents and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

2. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect property, the buildings and occupants during construction period.

#### B. Occupancy Requirements

1. Full Owner Occupancy: Owner and tenants will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner and tenant usage. Perform the Work so as not to interfere with Owner's operations.

#### 1.5 PERMITS

- A. Contractor is responsible for obtaining and paying for all permits and for the coordination of all required inspections.
- B. Prepare and file necessary plans, including floor plans, prepare documents and obtain necessary approvals of Authorities Having Jurisdiction (AHJ). Obtain required certificates of inspection for work and deliver to the Owner before request for acceptance and final payment for the work.

#### 1.6 CONTRACT MODIFICATION PROCEDURES

- A. Owner-Initiated Proposal Requests: Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change.
- C. Construction Change Directive: Owner may issue a Construction Change Directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- D. Documentation: Maintain detailed records required for a change order to be approved and provide evidence of the following:
  - 1. Wage Rates
  - 2. Hours worked for each trade
  - 3. Materials
  - 4. Equipment
- E. Do not perform change order Work without approval of the Owner. Work performed without approval will not be compensated.

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#### 1.7 PAYMENT PROCEDURES

A. Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.

- B. Each Application for Payment shall be consistent with previous applications and payments.
- C. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
- D. Waivers of Lien: With each Application for Payment, submit conditional waivers lien from every entity that is lawfully entitled to file a lien arising out of the Contract and related to the Work covered by the payment.
  - 1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
  - 2. When an application shows completion of an item, submit final or full waivers.
  - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
    - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
- E. Final Payment Application: Submit final Application for Payment with releases and close out supporting documentation.

#### 1.8 PROJECT MEETINGS

- A. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner, but no later than 7 days after execution of the Agreement.
- B. Progress Meetings: Conduct progress meetings at weekly intervals.

#### 1.9 SUBMITTALS

- A. Provide product data for each element of construction and type of product or equipment for approval by Authority having Jurisdiction (AHJ) and Owner.
- B. Subcontract list. Prepare written information that demonstrates capabilities and experience of firm or persons.
- C. Contractors project manager and/or supervisors. Prepare written information that demonstrates capabilities and experience of firm or persons.
  - 1. The Owner will review subcontractors and assigned staff and will accept or reject based on experience or qualifications.

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D. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific Accident Prevention Program (APP) to the Owner's representative prior to the initial scheduled construction meeting.

#### 1.10 TEMPORARY FACILITIES

- A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
- B. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against.
- C. Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- D. Four parking spaces shall be available to the contractor for storage containers and parking. Do not park in marked tenant spaces.

#### 1.11 CONSTRUCTION WASTE MANAGEMENT

- A. Regulatory Requirements: Conduct construction waste management activities in accordance with State of Washington RCW 39.04.13, and all other applicable laws and ordinances.
- B. Performance Requirements
  - 1. General: Where possible divert CDL waste from the landfill by one, or a combination of the following activities: Salvage, Reuse, Source-Separated CDL Recycling, Co-mingled CDL Recycling.
- C. Removal of Construction Waste Management
  - 1. Remove CDL waste materials from project site on a regular basis. Do not allow CDL waste to accumulate on-site.
  - 2. Transport CDL waste materials off Owner's property and legally dispose of them.
  - 3. Burning of CDL waste is not permitted.

#### 1.12 EXECUTION REQUIREMENTS

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

#### 1.13 CUTTING AND PATCHING

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#### A. Quality Assurance

1. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

2. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Owner's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

#### B. Performance

- 1. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
- 2. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
  - a. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  - b. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

#### 1.14 DEMOLITION

- A. Hazardous Materials: An asbestos containing materials report and lead paint report will be available.
  - 1. The property was constructed in 1986.
  - 2. If materials suspected of containing hazardous materials are encountered, do not disturb and immediately notify Owner.

#### 1.15 CLOSEOUT PROCEDURES

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
  - 1. Prior to acceptance of the work at each building, clean project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- B. Prior to final acceptance and final payment, Contractor shall submit a written warranty covering labor and materials for a period of one (1) year from final completion.

#### **SPECIFICATIONS**

Fire Alarm System Upgrade	Contract Number: HW2201531
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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01100

# SECTION 28 05 13 CONDUCTORS AND CABLES FOR ELECTRONIC SAFETY AND SECURITY

#### **PART 1 GENERAL**

#### 1.01 SUMMARY

- A. This Section includes:
  - 1. Control Wiring
  - 2. Communication and Signal Wiring
  - 3. Wire Lubricated Compound
  - 4. Electrical Metallic Tubing and Fittings
  - 5. Interior Conduit

#### 1.02 RELATED SECTIONS

- A. Division 01, General Requirements
- B. Section 28 30 00 Fire Detection and Alarm

#### 1.03 SUBMITTALS

- A. Submit the following:
  - 1. Manufacturer's Literature and Data: Showing each cable type and rating.
  - Certificates: Two weeks prior to final inspection, deliver to the Owner four copies of thecertification that the material is in accordance with the drawings and specifications andhas been properly installed.
  - 3. Shop Drawings:
    - a. Size and location of panels and pull boxes.
    - b. Size and location of fire-rated penetration devices.
    - c. Layout of required conduit penetrations through structural elements.
    - d. Identify the specific item proposed and its area of application on the catalog cuts.

#### 1.04 REFERENCES

- A. References listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
  - 1. ASTM: American Society of Testing Material
    - a. ASTM D2301-04 Standard Specification for Vinyl Chloride Plastic Pressure Sensitive Electrical Insulating Tape
  - 2. Federal Specifications
    - a. A-A-59544-00 Cable and Wire, Electrical (Power, Fixed Installation)
  - 3. NFPA: National Fire Protection Association
    - a. NEC 70-05 National Electrical Code
  - 4. UL: Underwriters Laboratories, Inc.

a.	UL 44-02	Thermoset-Insulated Wires and Cables
b.	UL 83-03	Thermoplastic-Insulated Wires and Cables
C.	UL 467-01	Electrical Grounding and Bonding Equipment
d.	UL 486A-01	Wire Connectors and Soldering Lugs for Use with Copper

		Conductors
e.	UL 486C-02	Splicing Wire Connectors
f.	UL 486D-02	Insulated Wire Connector Systems for Underground Use or inDamp or Wet Locations
g.	UL 486E-00	Equipment Wiring Terminals for Use with Aluminum and/orCopper Conductors
h.	UL 493-01	Thermoplastic-Insulated Underground Feeder and BranchCircuit Cable
i.	UL 514B-02	Fittings for Cable and Conduit
i.	UL 1479-03	Fire Tests of Through-Penetration Fire Stops

#### **PART 2 PRODUCTS**

#### 2.01 CONTROL WIRING

- A. Power and control wiring, except the minimum size not less than 14 AWG, unless otherwisespecified in other sections of these specifications.
- B. Large enough the voltage drop under inrush conditions does not adversely affect operation of the controls.

#### 2.02 COMMUNICATION AND SIGNAL WIRING

- A. Conform to the recommendations of the manufacturers of the communication and signalsystems; however, not less than what is shown.
- B. Wiring shown is for typical systems. Provide wiring as required for the systems beingfurnished.
- C. Multi-Conductor Cables: color-coded.

#### 2.03 WIRE LUBRICATING COMPOUND

- A. Suitable for the wire insulation and conduit it is used with, and will not harden or becomeadhesive.
- B. Do not use on wire for isolated type electrical power systems.

#### 2.04 ELECTRICAL METALLIC TUBING AND FITTINGS

- A. Type EMT: Electrogalvanized steel tubing.
- B. Fittings and Conduit Bodies:
  - 1. General: In-line straight-through steel or malleable iron fittings and Type C conduitbodies only; do not use bends or tees.
  - Wet Areas: Steel compression-type couplings and nipples.
  - 3. Dry Areas: Set screw-type couplings and nipples.
  - 4. Bonding Locknuts: Malleable iron with set screws and lug screws.
    - a. Insulated Bushing: Malleable iron with integral insulated throat, rated for 302 degrees F.
    - Bonding and Grounding Bushing: Malleable iron with integral insulated throat, ratedfor 302 degrees F, with solderless lugs or lug screws.

#### 2.05 INTERIOR CONDUIT

A. Flexible Metal Conduit:

1. Not permitted for interior application.

#### B. Surface Raceways:

- 1. Use with prior direction from Architect.
- 2. Sheet metal channel with fitted cover, suitable for use as surface metal raceway.
- 3. Install as reflected in the contract documents
- 4. Provide fittings, elbows, and connectors designed for use with raceway system.
- 5. Color: Ivory

#### C. Junction And Pull Boxes:

- 1. Interior Boxes: Fasten covers using security screws.
  - a. Sheet Metal Outlet Boxes:
    - 1) Sizes to be determined in accordance with code requirements for conductor fill.
    - 2) No box smaller than a single gang 1-1/2-inches deep.
    - 3) Provide box covers as required and fasten using security screws.

#### **PART 3 EXECUTION**

#### 3.01 GENERAL INSTALLATION

- A. Splice cables and wires only in outlet boxes, junction boxes, or pull boxes.
- B. Seal cable and wire entering a building from underground, between the wire and conduitwhere the cable exits the conduit, with a non-hardening approved compound.
- C. Wire Pulling:
  - 1. Provide installation equipment that will prevent the cutting or abrasion of insulation duringpulling of cables.
  - 2. Use ropes made of nonmetallic material for pulling feeders.
  - 3. Attach pulling lines for feeders by means of either woven basket grips or pulling eyesattached directly to the conductors, as approved by the Resident Engineer.
  - 4. Pull in multiple cables together in a single conduit.

#### 3.02 CONTROL, COMMUNICATION AND SIGNAL WIRING INSTALLATION

- A. Install wiring and connect to equipment/devices to perform the required functions as shownand specified, unless otherwise specified in other Sections.
- B. Install a separate power supply circuit for each system so that malfunctions in the system willnot affect other systems, except where otherwise required,
- C. Connect the systems to the nearest panelboards of suitable voltages, which are intended to supply such systems and have suitable spare circuit breakers or space for installation.
- D. Install a red warning indicator on the handle of the branch circuit breaker for the power supplycircuit for each system to prevent accidental de-energizing of the systems.
- E. System Voltages: 120V or lower where shown on the drawings or as required by the NEC.

#### 3.03 CONTROL, COMMUNICATION AND SIGNAL SYSTEM IDENTIFICATION

- A. Install a permanent wire marker on each wire at each termination.
- B. Identifying numbers and letters on the wire markers correspond to those on the wiringdiagrams used for installing the systems.
- C. Wire markers retain their markings after cleaning.

#### **END OF SECTION 28 05 13**

### SECTION 28 30 00 FIRE DETECTION AND ALARM

#### **PART 1 - GENERAL**

#### 1.01 SECTION INCLUDES

- A. General: Furnish and install new fire alarm panels, NAC power modules, signal and notification devices as required for fire marshal and jurisdictional approvals.
  - 1. The provided drawings are schematic; Contractor responsibility to determine device counts and layout as required by the City of Bellevue Fire Marshal
- B. Permitting: submit, secure and final permits and jurisdictional approvals from
  - 1. City of Bellevue
- C. Fire Alarm system
  - 1. Basis of Design Silent Knight with no substitutions
  - 2. Components: Silent Knight compatible signal and notification devices:
    - a. Strobe Synchronization
    - b. Remote Equipment
    - c. Detection Devices
    - d. Manual Pull Stations
    - e. Annunciation Devices
    - f. Addressable Accessories
    - g. Controlled Devices
    - h. Cable
    - i. Pictogram

#### D. Fire Alarm system Monitoring

- 1. Prepay Owner approved monitoring company for one-year of fire alarm monitoring
- 2. Respond to fire alarm system issues during first year of monitoring
- 3. End user to assume contract and extend service after first year

#### 1.02 RELATED SECTIONS

- A. Division 01, General Requirements
- B. Hazardous Materials Survey
- C. Section 28 05 13 Conductors and Cables for Electronic and Security

#### 1.03 SUBMITTALS

- A. Shop drawings produced in AutoCAD with Fire Marshal's stamp of approval.
- B. Product data with wiring schematics.
- C. AutoCAD wiring diagrams of each type of device.
- D. AutoCAD riser diagram of the complete systems.
- E. Battery and voltage drop calculations based on intended routing and wiring.

F. Prepare shop drawings of the system by the manufacturer in AutoCAD and submitted to the Fire Marshal for approval. The approved shop drawings will be utilized as the installation drawings. The shop drawings show actual conduit routing and conductors as to be installed. Update drawings to include revisions and changes to the system during construction and installation.

#### 1.04 QUALITY ASSURANCE

- A. Approve and install equipment in accordance with NFPA, ADA and IBC requirements and ULlisted both in individual components and as a system. ISO-9000 certified; UL and FM listed and meet NFPA 72.
- B. Furnish evidence that there is an experienced and efficient service organization which carries stock of repair parts for the system to be furnished and that the organization is cable of providing repair services within 24 hours of a trouble call.
- C. Install system by an electrical contractor experienced in the installation of addressable fire alarm systems and certified by the national institute for certification in engineering technologies (NICET) for fire alarm systems. Control equipment factory representative services be obtained to provide engineered system floor plans and point-to-point drawings onAutoCAD. Representative to supervise the installation, system start-up, programming, make final adjustments and provide testing of the completed system. The factory representative provides a letter of system certification to the Architect.

#### 1.05 CONTRACTOR DESIGN

- A. Provide a complete fire alarm and communications system as needed to meet applicable codes and requirements under this section.
- B. Provide devices if needed to comply with the requirements of NFPA 72.
- C. Raceway, routing, and wiring for field devices are not shown on the drawings except for a few specific design requirements.
- D. Submit documents after design has been approved by Authority Having Jurisdiction (AHJ).
  - 1. The fire alarm system shall be designed by a NICET Fire Alarm Systems Level IV engineering technician.
  - The designer is responsible for understanding the construction of the building to take in consideration ceiling heights, ceiling construction (flat or not flat), and other features of the building that will affect the layout of devices as required to provide a fire alarm system that is fully compliant with NFPA 72.
  - 3. If required by state regulations, a Professional Fire Protection Engineer shall seal drawings submitted to the AHJ.
- E. Noted that ceiling and wall finishes in occupied rooms contain asbestos; contractor responsibility to comply with all worker safety and disposal jurisdictional requirements.
- F. Field Quality Control:
  - 1. Manufacturer's field services: Provide service by a factory-authorized and

- certified service representative to supervise field assembly and connection of components and pre-testing, testing, and adjustment of system.
- Pre-testing: Determine, through pre-testing, conformance of system to requirements of drawings and specifications. Correct deficiencies observed in pre-testing. Replace malfunctioning or damaged items with new and retest until satisfactory performance and conditions are achieved.
  - a. Inspect equipment installation, interconnection with system devices, mounting locations, and mounting methods.
  - b. Verify that units and controls are properly installed, connected, and labeled and that interconnecting wires and terminals are identified.
- G. Authority Having Jurisdiction (AHJ) review:
  - 1. Concurrent or prior to submission to Engineer, submit shop drawing and product data to Authority Having Jurisdiction (AHJ).
  - 2. Upon receipt of comments from AHJ, make resubmissions, if required, to make clarifications or revisions to obtain approval.
  - 3. The AHJ shall witness final testing and inspection in order to obtain final approval for system
- H. Operate automatic fire detection systems in a local, supervised non-coded fashion. The system low voltage operating at 24V DC, fully addressable with analog technology for sensors. Signal circuits either class A or B without changing modules. Design system Class B. Load circuits to 75 percent capacity maximum.
- I. Signal, visual, and audible alarms, flow and tamper module circuits supervised for opens, shorts and grounds. Open, short or ground causes a trouble on the system, sound the audible trouble sounder and annunciate at the control and remote annunciator: the device, location, and nature of the trouble condition.

#### 1.06 SYSTEM OPERATION

- A. Operation of manual or automatic initiating device cause an audible and visual alarm to sound, activate the control-by-event program and perform auxiliary functions.
- B. Annunciate fault in the circuits at the control panel and the remote annunciators.
- C. Utilize a single pair of wires to power, transmit, and receive data from the addressable analoginitiating devices and to transmit commands to the remote-control points.
- D. Basic Performance:
  - 1. Signal Line Circuits (SLC) shall be wired Class B (NFPA Style 4).
  - 2. Notification Appliance Circuits (NAC) shall be wired Class B.
  - 3. Each SLC and NAC shall be limited to only 80 PCT of its total capacity at the time of initial installation.
  - 4. Fire alarm system and all associated equipment and devices shall be suited to the environment in which it is installed, e.g. in a hazardous areas all equipment shall be appropriately rated as explosion-proof, intrinsically safe, etc.

#### 1.07 SEQUENCE OF OPERATION

- A. The system alarm operation subsequent to the alarm activation of manual station, automaticinitiating device, or sprinkler flow/pressure switch is to be as follows:
  - 1. Audible alarm indicating appliances sound a digitized tone until silenced by the alarmsilence switch at the control panel.
  - 2. Visual alarm indicating appliances (xenon strobes) display a continuous pattern untilextinguished by the alarm silence switch.
  - 3. Doors normally held open by door control devices release. Signal door lock systems tounlock.
  - 4. A supervised signal to notifies an approved central station to activate.
  - 5. Combination fire/smoke dampers de-energizes to normally closed position.
- B. Alarm activation of elevator lobby, hoistway, or machine room smoke or heat detector in addition to the operations listed above, cause the elevator cab to be recalled according to the following sequence:
  - 1. If the alarmed detector is on another floor other than the preferred level of egress, recallelevator cab to the preferred level of egress.
  - If the alarmed detector is on the main egress level, the elevator cabs recalled to thepredetermined alternate recall level as determined by the local authority having jurisdiction.
  - 3. The activation of heat detector in an elevator hoistway or machine room automatically disconnect power to the elevator motor via base-mounted contacts activating the elevatorfeeder shunt-trip circuit breaker. Refer to drawings.
- C. Control panel has a dedicated supervisory service indicator and a dedicated supervisoryservice acknowledge switch.
- D. The activation of standpipe or sprinkler valve tamper switch activates the system supervisoryservice audible signal and illuminate the indicator at the control panel.
  - Activating the supervisory service acknowledge switch will silence the supervisory audible signal while maintaining the supervisory serviced LED on indicating the tampercontact is still in the off-normal state.
  - 2. Restoring the valve to the normal position cause the supervisory service indicator to extinguish thus indicating restoration to normal position.
- E. The activation of sprinkler pre-action system pressure or low air switch activate the systemsupervisory service audible signal and illuminate the indicator at the control panel.
  - Activating the supervisory service acknowledge switch will silence the supervisory audible signal while maintaining the supervisory service indicator on indicating the pressure/air contact is still in the off-normal state.
  - 2. Restoring the air pressure to the normal causes the supervisory service indicator to extinguish thus indicating restoration to normal position.
- F. Immediately display alarm and trouble conditions on the control panel front

- alphanumeric display and of remote annunciators. If more alarms or troubles are in the system the operatormay scroll to display new alarms.
- G. Alarm list key that will allow the operator to display alarms, troubles, and supervisory serviceconditions with the time of occurrence.
- H. In normal operation, fire alarm system close combination fire/smoke dampers when corresponding fan system is OFF. Fire alarm system open combination fire/smoke damperswhen corresponding fan system is ON.

#### 1.08 CONNECTION TO EXISTING NETWORK

- A. General: Communication between peer-to-peer fire alarm control panels via TCP/IP overexisting Ethernet, RS-485, RS-232 or other previously established panel system communication protocol.
- B. Provide hardware, software and system integration to seamlessly integrate to the existing server for common system graphics, alarming, paging out of alarms via existing system.
- C. Provide upgrade to existing control monitoring to accept new alarm points.

#### 1.09 Warranty

A. Warrant all products supplied and installed to be free from defects in material and workmanship starting on the date and for the duration of the period for 12 months. Warranty calls for technicians are covered during normal working hours Monday through Friday. Labor for after hours and weekend call out will be charged at our preferred customer discount rate.

#### **PART 2 - PRODUCTS**

#### 2.01 ACCEPTABLE MANUFACTURERS

- A. FACP: Silent Knight; SK-6820; or as required to meet coverage requirements and outlined in Division 1.
  - 1. No exceptions allowed
- B. Non-system fire alarm devices
  - 1. Kiddie or Firex

#### 2.02 GENERAL

- A. Furnish labor, materials, and equipment required for a complete and operating system of manual and automatic initiating devices, control panels, auxiliary relays, power supplies withbatteries and accessories necessary to accomplish the desired sequence of events.
- B. Fully electronic and addressable systems as described below with monitoring and annunciation of system alarms and troubles.
- C. All detection and initiation devices compatible with specified manufacturer.

#### 2.03 STROBE SYNCHRONIZATION

A. Synchronize strobes to 1Hz flash to comply with the Americans with Disabilities Act (ADA).

#### 2.04 REMOTE EQUIPMENT

- A. Annunciator Control Panels: Alphanumeric display module:
  - 80 character LED/LCD display, back lighted.
  - 2. System acknowledge, signal silence, and system reset touchpad control switches.
  - 3. Time/date display.
  - 4. Integral sounder with subsequent alarm/trouble resound.
  - 5. Flush mounting.

#### B. Transponders:

- 1. Up to 26 field configurable circuits of any mix.
- 2. Full LED/LCD display of alarm and trouble per point.
- 3. Status displays and controls including power, on-line, local alarm and local troubleLED/LCD's plus reset and lamp test switches.
- 4. Power supply, charger and battery as required for control panel.

#### C. Lamp Driver Modules:

- 1. Field selectable alarm and trouble or alarm only.
- Integral system trouble lamp on-line/power LED/LCD, alarm and trouble resound with flash function of new events, serial RS-485 interface to control panel, capable of beingpowered remotely or locally with supervision.
- 3. Integral lamp test function.
- D. Power supplies, with integral chargers and batteries current limited low energy asrecommended by the manufacturer but sized for 25 percent spare capacity.

#### 2.05 DETECTION DEVICES

- A. Analog photoelectric smoke detectors provide for individual addressing of each detector. Sensor is constantly monitored to measure change in its sensitivity due to the environmentcaused by dirt, aging, temperature, humidity, etc.
- B. Give an advanced indication to the control panel of the need for maintenance and can be specific as to where the maintenance is needed. It is to be mounted on a two wire standarddevice base. Photoelectric detectors located within the elevator shaft rated for installation within a pressurized shaft.
- C. Duct smoke detector housing assemblies accommodate the mounting of an analog/addressable detector along with a standard, relay or isolator detector mounting base. Housing protects the measuring chamber from damage and insects. Utilize an air exhaust tube and an air sampling inlet tube that extends into the duct air stream up to twelve feet. Provide drilling templates and gaskets to facilitate locating and mounting the housing.
  - 1. Provide sampling tube length as required to accommodate air duct width.
  - 2. Provide remote status/alarm LED indicator and keyswitch test station for

each ductsmoke detector.

- 3. Duct smoke detector air velocity range includes design air velocity of the ductwork inwhich the duct smoke detector is to be installed.
- D. Analog thermal detectors consist of a dual thermistor sensing circuit for fast response. Sensoris continually monitored to measure changes in their sensitivity due to temperature. Advancedindication to the control panel of the need for maintenance and can be specific as to where themaintenance is needed. Mount on a two wire standard device base. Equip thermal detectors in elevator shafts and machine rooms with a set of auxiliary contacts for elevator equipment use. Rate thermal detectors located within elevator shaft for installation within a pressurized shaft.
- E. Projected Beam Type Smoke Detectors:
  - 1. 4-wire 24 VDC and powered from the control panel four-wire smoke power source.
  - 2. Consists of a separate transmitter and receiver capable of being powered separately ortogether.
  - 3. Operate in either a short range of 30-feet to 100-feet or a long range of 100-feet to 300-feet.
  - 4. Feature a bank of four alignment LEDs on both the receiver and transmitter that are used to ensure proper alignment without the use of special tools.
  - 5. The beam detector features automatic gain control that compensate for gradual signal deterioration from dirt accumulation on lenses. Ceiling or wall mount as shown on the drawings. Carry out testing out using calibrated test filters. Provide a key activated remote test station.
  - 6. Provide monitor modules for alarm and trouble and control relay module for reset.
- F. Provide addressable monitor modules an address for a single, normally open initiating devicesuch as a waterflow switch, manual station, etc. UL approved to extend the sensor loop to lengths up to 2,500-feet.
- G. Non-System Smoke Detectors: direct wire, battery back-up.

#### 2.06 MANUAL PULL STATIONS

A. Single action, addressable, constructed of metal construction with a key reset switch forpositive authorized resetting action. The unit to be keyed the same as the control unit.

#### 2.07 ANNUNCIATION DEVICES

- A. Horn and Combination Horn/Strobe:
  - 1. Mount to a recessed box with an extension ring.
  - 2. Front of the unit allows for candela light levels as required by ADA for the spacing asinstalled.
  - 3. Horns provide a 100 dba peak sound output with field adjustable output level.
  - 4. Finish: Match existing finishes in the facility

#### B. Strobe Lights:

- 1. Triangular with FIRE on white plastic lens, polarized 24 VDC, mounting single gang onfour square box.
- 2. Front of the unit allows for candela light levels as required by ADA for the spacing asinstalled.
- 3. Strobe candela level adjustable field from 15-110 CD.
- 4. Mount at 80-inches or as shown on drawings.
- 5. Finish: Match existing finishes in the facility
- C. The candela rating of each strobe installed apparent to the Fire Marshal and to qualified service personnel either as installed or with the removal of the faceplate. If faceplates are interchangeable between strobes of different ratings the indication of candela rating not on thefaceplate.

#### 2.08 ELECTROMAGNETIC DOOR HOLDERS

- A. Equipment consists of an armature contact plate with adjustable pivot mount, install on door. Mount behind the door on the wall or floor a heavy-duty electromagnet, in a durable enclosure.
- B. Fail-Safe operation, loss of power releases the door holder for the door to close.
- C. Unit accepts 12VDC, 24VAC/VDC or 120VAC. Coordinate voltage by the fire alarm system installer/supplier. Circuitry required for the systems operation provided by the system installer.
- D. Door holder equipment of the same manufacturer as the fire alarm system to ensure system compatibility and proper UL compatibility listings.

#### 2.09 ADDRESSABLE ACCESSORIES

- A. Control Modules:
  - 1. Connects to the same loop as the initiating devices and provides a form C relay contact.
  - 2. Program module to transfer from either a trouble or alarm input from any or combination of any addressable device.

#### 2.10 CONTROLLED DEVICES

- A. Mechanical control system for control of air handlers and smoke/fire rated dampers.
- B. Fire protection tamper, flow, dry system and pre-action system.

#### **2.11 CABLE**

A. Plenum rated as recommended by System Manufacturer and the building constructionmethods.

#### 2.12 PICTOGRAM

A. Mounted and Glass-framed graphics card showing a one-line of the fire alarm system showing all fire alarm devices and connectivity to the FACP

#### **PART 3 - EXECUTION**

#### 3.01 INSTALLATION

#### A. General:

- Install in accordance with code, UFC, UBC, NFPA 72, 101 and the manufacturer'sinstructions.
- 2. Review proper installation of each type of device with manufacturer's agent.
- 3. Install wiring, raceway and outlet boxes required for a complete system as indicated in the Contract Documents.
- 4. Comply with applicable requirements of Section 28 05 13, Raceways and Boxes for Electrical Systems, for boxes and surface mounted raceways.

#### B. Typical Wiring:

- 1. Install manufacturer's recommended listed cable to connect devices as recommended bythe manufacturer.
- 2. Run cable in conduit where exposed to physical damage.

#### C. Detectors:

- 1. Locate 48-inches clear of supply air vents and 12-inches clear of lights and sprinklerheads.
- 2. Install detector heads not more than two weeks prior to substantial completion. Verify thedesign locations shown conform to the actual construction.
- 3. Do not locate detectors in close proximity to air supply vents.
- 4. Bring cases of uncertain applicability to the attention of the Architect for resolution prior toroughing in.

#### D. Duct Smoke Detectors

- 1. Provide/maintain working access to duct smoke detectors.
- 2. Locate duct smoke detectors in accordance with code requirements. Locations mustensure adequate airflow within the duct housing.
- 3. Locate remote status/alarm LED indicator and keyswitch test station at readily accessiblelocation out of general view directly below duct smoke detector location. Identify locationson fire alarm shop drawings prior to installation.
- E. Provide auxiliary power supplies as required and extend the 120V power to the power supplyas required and per NEC.
- F. Provide visual devices and alarm devices as required. Device locations are diagrammatic showing intent of area coverage. The exact placement, sound or light level is to be per therequirements and the listing of the manufacturer's equipment.

#### G. Raceways and Boxes

- 1. Install all wiring in raceways and all devices in boxes:
- 2. In unfinished areas, exposed fire alarm conduit shall be red in color.
- 3. All boxes are to be red in color (either painted or a manufacturer's red box).
- H. Install all components as indicated and in accordance with manufacturer's wiring diagrams, instructions, and recommendations.

- I. Make all fire alarm wiring continuous from terminal to terminal or from terminal to device pigtail lead.
  - Circuit splices not permitted.
  - 2. Wiring joints, only when required at device pigtail leads shall utilize insulated conical spring connector.
- J. Color coding or other identification is required for all fire alarm wiring.

#### 3.02 LABELING

- A. Label fire alarm control and NAC panels with 1/2-inch by 1-inch phenolic nameplates, indicating control panel point designation. Locate nameplates in the vicinity of the device as approved by the Owner.
- B. Provide Brady type wire markers to identify conductors at each junction or terminal. Use numbers indicated on the wiring diagrams.

#### **3.03 TESTS**

- A. Provide the service of a competent, factory-trained technician authorized by the manufacturer of the fire alarm equipment to technically supervise and participate during the programming, final connections, adjustments and tests for the system.
- B. When the system is complete and prior to the substantial completion, furnish testingequipment and perform the following tests:
- C. Before energizing system, check for correct wiring connections and test for short circuits, ground faults, continuity, and insulation.
- D. Test the insulation on installed wiring by standard methods as recommended by the equipment manufacturer.
- E. Open supervised circuits to see if the trouble signal activates.
- F. Ground supervised circuits and verify response of trouble signals.
- G. Check installation, supervision, operation, and sensitivity of smoke detectors as recommended by the manufacturer to ascertain that they will avoid false alarm signals yet provide the required automatic detection.
- H. Test each device for proper operation and auxiliary function.
- I. Submit a printout of the entire test procedure to the engineer with the letter of certification forthe completed fire alarm system.
- J. When defects in the work are detected, make repairs and repeat the tests as required.
- K. Test system for NFPA standby and alarm runtime for the actual load on the system batteries and recharge time of system batteries.
- L. Perform required and necessary verification of the system operating functions with the Architect and Owner's facility staff prior to turnover of the complete system for final test observed by the Fire Department. Perform tests in the presence of the Owner or the Owner'sRepresentative. A System Certification verifying the proper system operation is required prior to acceptance. Instruct Owner's personnel in system operation, maintenance and programming for a minimum of 20 hours. The cost of retesting as a result of the failure of the

system to operate in accordance with these specifications, drawings, or applicable codes paidfor by the contractor to the Owner

#### 3.04 EXTRA STOCK/SPARE PARTS

- A. Provide the following equipment to be turned over to the owner with the operation andmaintenance manuals.
  - 1. Four photoelectric smoke detector heads
  - Four thermal heat detector heads
  - 3. Four addressable dry contact modules
  - 4. Two horns
  - 5. Four horns/strobes
  - 6. Two manual pull stations
  - 7. One complete set of fuses to match panel counts

#### 3.05 TRAINING

- A. Provide operation and maintenance training for Owner's personnel.
- B. Conduct a minimum of one maintenance training sessions upon completion of the work. Maintenance training sessions include a walk-thru of the completed facilities identifying the location, address, and means of access to every device monitored by the fire alarm system.
- C. Training sessions with fully qualified, trained representative, of the equipment manufacturerwho is thoroughly knowledgeable of the specific installation.

**END OF SECTION 28 30 00** 

#### **SECTION 06 20 00 - FINISH CARPENTRY**

#### **PART 1 GENERAL**

#### 1.01 SECTION INCLUDES

- A. Finish carpentry items.
- B. Wood cove & ceiling trim wire raceways.

#### 1.02 RELATED REQUIREMENTS

- A. Section 28 05 13.
- B. Section 28 30 00

#### 1.03 REFERENCE STANDARDS

- A. ANSI A208.1 American National Standard for Particleboard; 2009.
- B. AWI (QCP) Quality Certification Program; current edition at www.awiqcp.org.
- C. AWI/AWMAC/WI (AWS) Architectural Woodwork Standards; 2014.
- D. AWMAC/WI (NAAWS) North American Architectural Woodwork Standards, U.S. Version 3.0; 2016.
- E. AWPA U1 Use Category System: User Specification for Treated Wood; 2012.
- F. HPVA HP-1 American National Standard for Hardwood and Decorative Plywood; 2009.
- G. WDMA I.S. 4 Industry Specification for Preservative Treatment for Millwork; 2013.

#### 1.04 SUBMITTALS

 See Division 1 Project Administration for submittal procedures and requirements. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

Protect work from moisture damage.

#### **PART 2 PRODUCTS**

#### 2.01 FINISH CARPENTRY ITEMS

- A. Quality Standard: Premium Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Interior Woodwork Items:
  - 1. Moldings: Ceiling Cove, Wire chase trim, pre-painted.

#### 2.02 WOOD-BASED COMPONENTS

A. Wood fabricated from old growth timber is not permitted.

#### 2.03 LUMBER MATERIALS

- A. Softwood Lumber: face species, plain sawn, maximum moisture content of 6 percent; with vertical grain.
- B. Hardwood Lumber: face species, plain sawn, maximum moisture content of 6 percent.

#### 2.04 FASTENINGS

- A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds.
- B. Brad Nails/Finish Screws, holes filled and paint touch up.

#### 2.05 ACCESSORIES

- A. Lumber for Shimming and Blocking: Softwood lumber of Doug Fir species.
- B. Wood Filler: Solvent base, tinted to match surface finish color.

#### 2.06 FABRICATION

A. Shop assemble work for delivery to site, permitting passage through building openings.

B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

#### **PART 3 EXECUTION**

#### 3.01 EXAMINATION

A. Verify adequacy of backing and support framing.

#### 3.02 INSTALLATION

- A. Install work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.
- B. Set and secure materials and components in place, plumb and level.
- C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

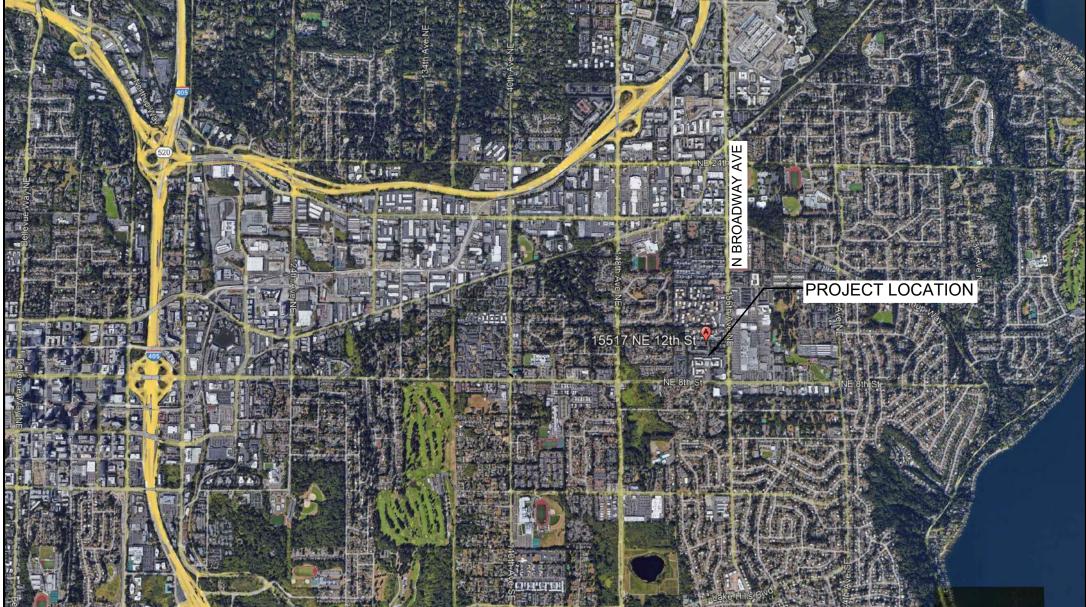
#### 3.03 TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch.
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.

#### **END OF SECTION**

# KING COUNTY HOUSING AUTHORITY CASCADIAN APARTMENTS FIRE ALARM UPGRADES

ADDRESS: 15517 NE 12TH ST, BELLEVUE, WA 98007



PROJECT DIRECTORY

**JURISDICTION** 

CITY OF BELLEVUE

KING COUNTY HOUSING AUTHORITY DARRELL WESTLAKE

600 ANDOVER PARK W SEATTLE, WA 98134 TEL: 206-693-6415 EMAIL: DARRELLW@KCHA.ORG

OSBORN ARCHITECTS, INC JERRY OSBORN, AIA

1011 SW KLICKITAT WAY, SUITE 208 SEATTLE, WA 98134 TEL: 206-920-6348 EMAIL: JOSBORN@OAIPS.COM

**DRAWING LIST** 

TITLE SHEET

SITE PLAN T1.1 **KEY PLAN** T1.2

PHOTO REFERENCE SHEET

PHOTO REFERENCE SHEET

TYP. FIRE ALARM DEVICE LAYOUT PLAN

TYP. FIRE ALARM DEVICE LAYOUT PLAN

**CASCADIAN APARTMENTS** 

**VICINITY MAP** 



**GENERAL NOTES** 

- DRAWINGS LISTED AS N.T.S. (INDICATES "NOT TO SCALE") SHOULD NOT BE SCALED. THE LISTED DIMENSIONS SHALL GOVERN UNLESS NOTED OTHERWISE
- 2. THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF WORK DESCRIBED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS SHOWN OR IMPLIED ON THE DRAWINGS AND SPECIFICATIONS AS WELL AS THE EXISTING WORK AND PHYSICAL CONDITIONS OF THE SITE. IN THE EVENT OF DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS IN THE PACKAGE, PLEASE NOTIFY ARCHITECT IMMEDIATELY.
- 3. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES OR PROCEDURES REQUIRED
- . CONTRACTOR SHALL PROTECT ALL EXISTING ITEMS AND FACILITIES TO REMAIN THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR AND/OR REPLACE AT CONTRACTORS EXPENSE ANY EXISTING ITEMS AND FACILITIES TO REMAIN THAT ARE DAMAGED BY CONTRACTORS OPERATIONS TO THE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING APPROPRIATE JURISDICTIONS FOR REQUIRED INSPECTIONS AND SHALL PAY ALL FEES
- ASSOCIATED WITH THE WORK  $6.\,\,$  THE CONTRACTOR SHALL CLEAN-UP DEBRIS AND HALL AWAY AND PROPERLY DISPOSE OF ALL DEBRIS ON A CONTINUOUS BASIS.
- 7. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGE TO THE WORK OF OTHER TRADES CAUSED BY HIS OPERATIONS. THE NATURE OF
- SUCH REPAIR WORK MUST RECEIVE THE PRIOR APPROVAL OF THE APPROPRIATE CONTRACTORS REPRESENTATIVE 8. UNLESS STATED OTHERWISE IN THE SPECIFICATIONS, ALL PROCEDURES, TESTING, MATERIALS AND EQUIPMENT SHOWN ON THE PLANS SHALL BE
- 9. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A SET OF PRINTS OF THE FINAL CONSTRUCTION DOCUMENTS ALL "AS-BUILT" MODIFICATIONS, INCLUDING MODIFICATIONS TO THE WORK OF ALL SUB-CONTRACTORS, SHOULD BE CLEARLY NOTED ON THESE PLANS.
- 10. OVERLAPPING CONFLICTING REQUIREMENTS: MOST STRINGENT (GENERALLY MOST COSTLY) APPLIES AND WILL BE ENFORCED, UNLESS MORE DETAILS LANGUAGE WRITTEN DIRECTLY INTO CONTRACT DOCUMENTS CLEARLY INDICATED THAT A LESS STRINGENT REQUIREMENT IS ACCEPTABLE. REFER UNCERTAINTIES TO ARCHITECT FOR DECISION BEFORE PROCEEDING
- 11. WHERE OPTIONAL REQUIREMENTS ARE SPECIFIED IN A PARALLEL MANNER, OPTIONS ARE INTENDED TO BE CONTRACTORS UNLESS OTHERWISE NOTED.

SCOPE OF WORK

- REPLACE ALL EXISTING FIRE ALARM DEVICES WITH NEW.
- 2. FURNISH AND INSTALL NEW FIRE ALARM DEVICES.
- 3. REPLACE FIRE ALARM PANELS AND REPLACE/ADD NAC POWER MODULES AS
- 4. FIRE ALARM RISER DESIGNED BY FIRE ALARM VENDOR.
- 5. PERMITTING AND JURISDICTION APPROVALS BY FIRE ALARM VENDOR.
- 6. FURNISH AND INSTALL AES OR TELEGUARD AND CONNECT TO MONITORING COMPANY. COORDINATE W/ MONITORING COMPANY.
- SUBMIT FIRE ALARM AS BUILTS AND PROJECT MANUAL AT PROJECT
- 8. WARRANT PARTS AND INSTALL FOR 1 YEAR FROM DATE OF SUBSTANTIAL
- COMPLETION.
- 9. FURNISH AND INSTALL FIRE ALARM SYSTEM "PICTOGRAM".
- 10. WORK INCLUDES ONE YEAR OF MONITORING.

REGULATED MATERIALS

H1. ALL EXISTING WALL AND CEILING TEXTURE CONTAINS ASBESTOS GREATER THAN 1%. MINIMIZE DISTURBANCE AND FOLLOW ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. USE PRE-FINISHED SURFACE-MOUNTED CABLE RACEWAY SYSTEMS.





CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

15517 NE 12TH ST, BELLEVUE, WA 98007

**REVIEWED BY:** SHEET NO. / TITLE: DRAWN BY JDO MD PROJECT STATUS: TITLE SHEET ISSUE DATE: SHEET SIZE: **ARCH D (24" x 36")** DRAWING SCALE: PROJECT NUMBER: KHCA2202





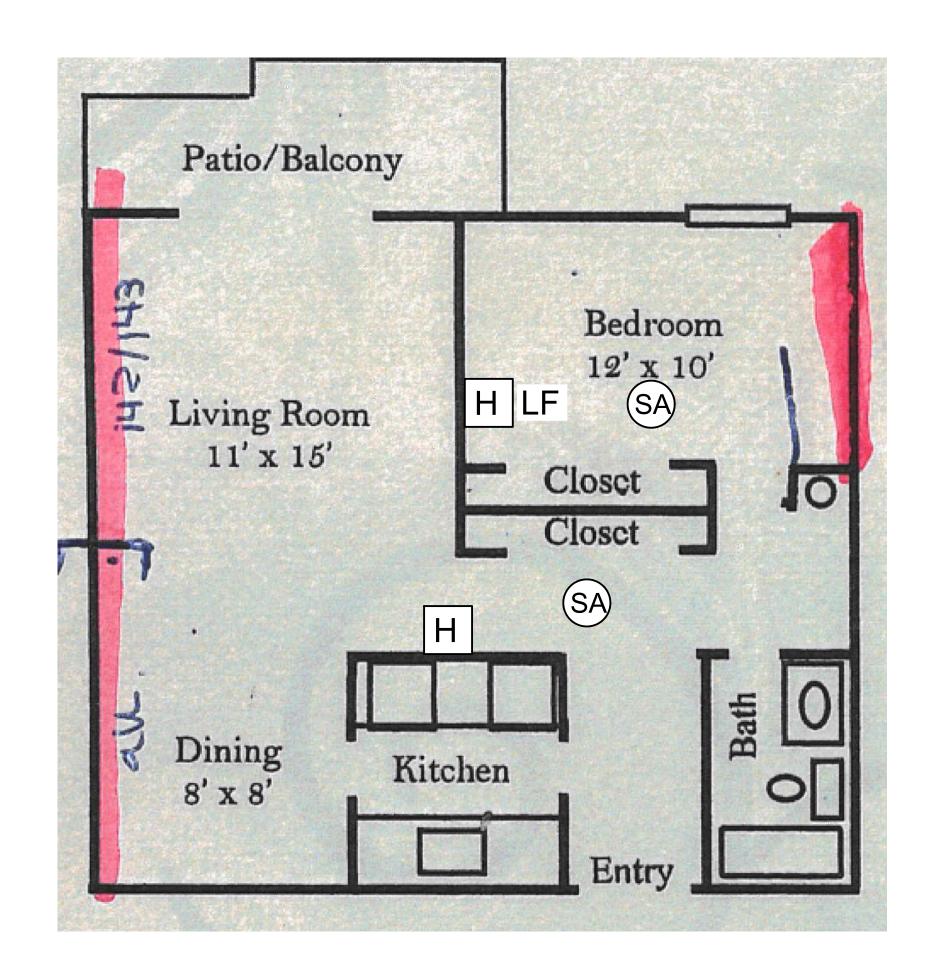


# PROPOSED EXTERIOR HORN STROBE ASSEMBLY. VERIFY LOCATION W. FIRE MARSHAL. ONE DEVICE PER BUILDING.

# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY
15517 NE 12TH ST,
BELLEVUE, WA 98007

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DRAWING SCALE:		
		PROJECT NUMBER: KHCA2202



TYPICAL ONE BEDROOM, ONE BATH (680 SF)

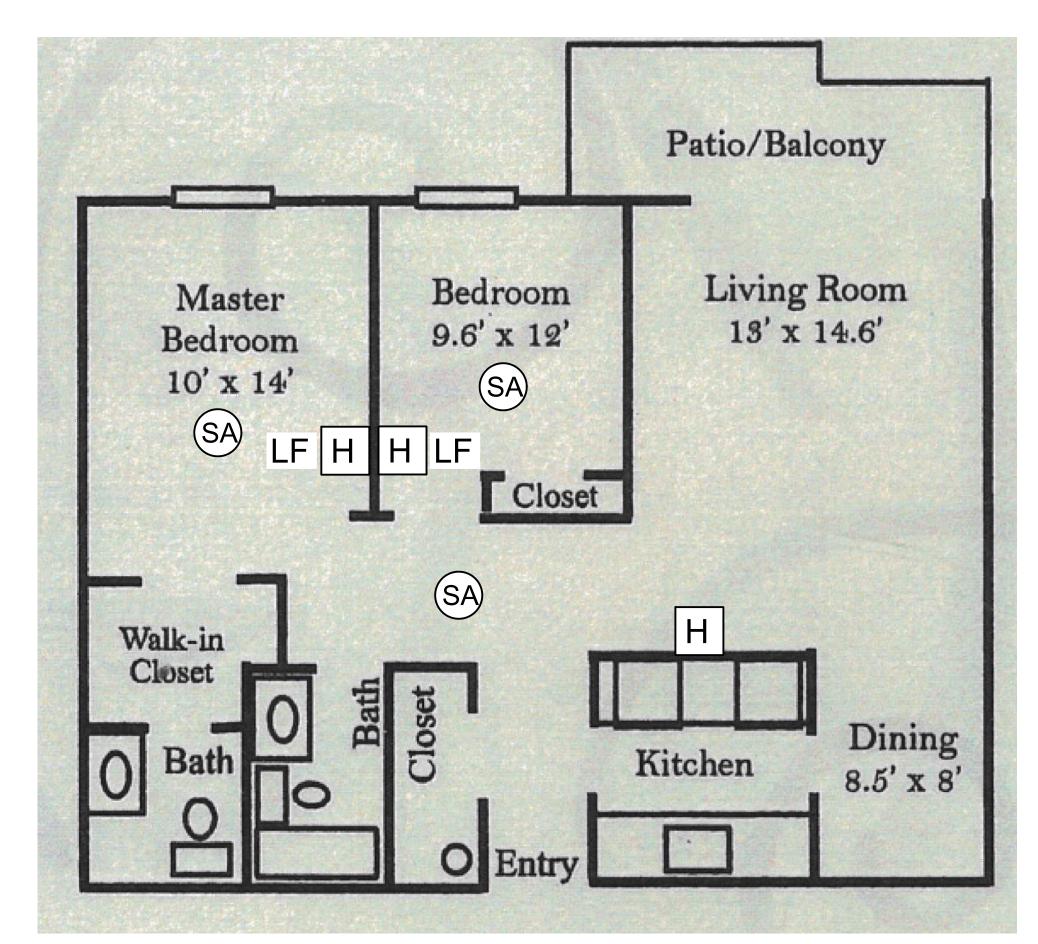
SCALE: 1/4" = 1'-0"

LEGEND:

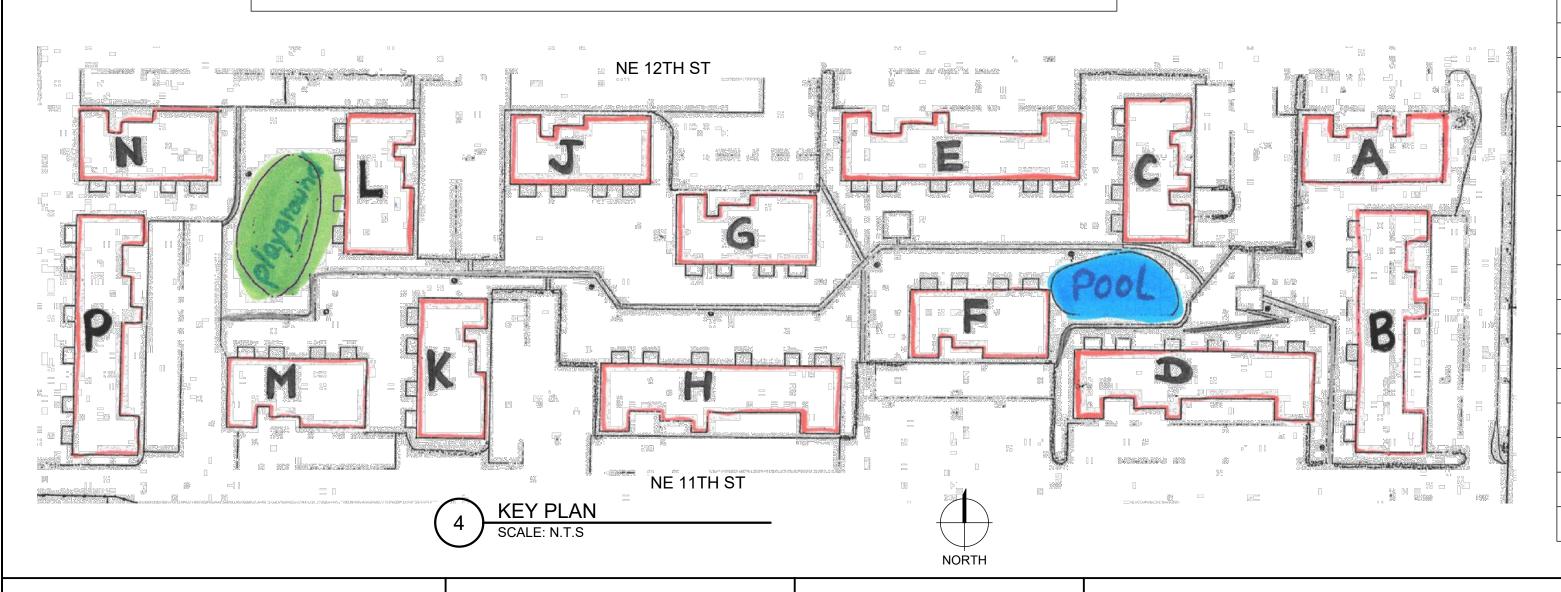
H NEW HORN

(SA) INTER CONNECTED, 120V, SMOKE ALARM

H LF NEW LOW FREQUENCY SOUNDER

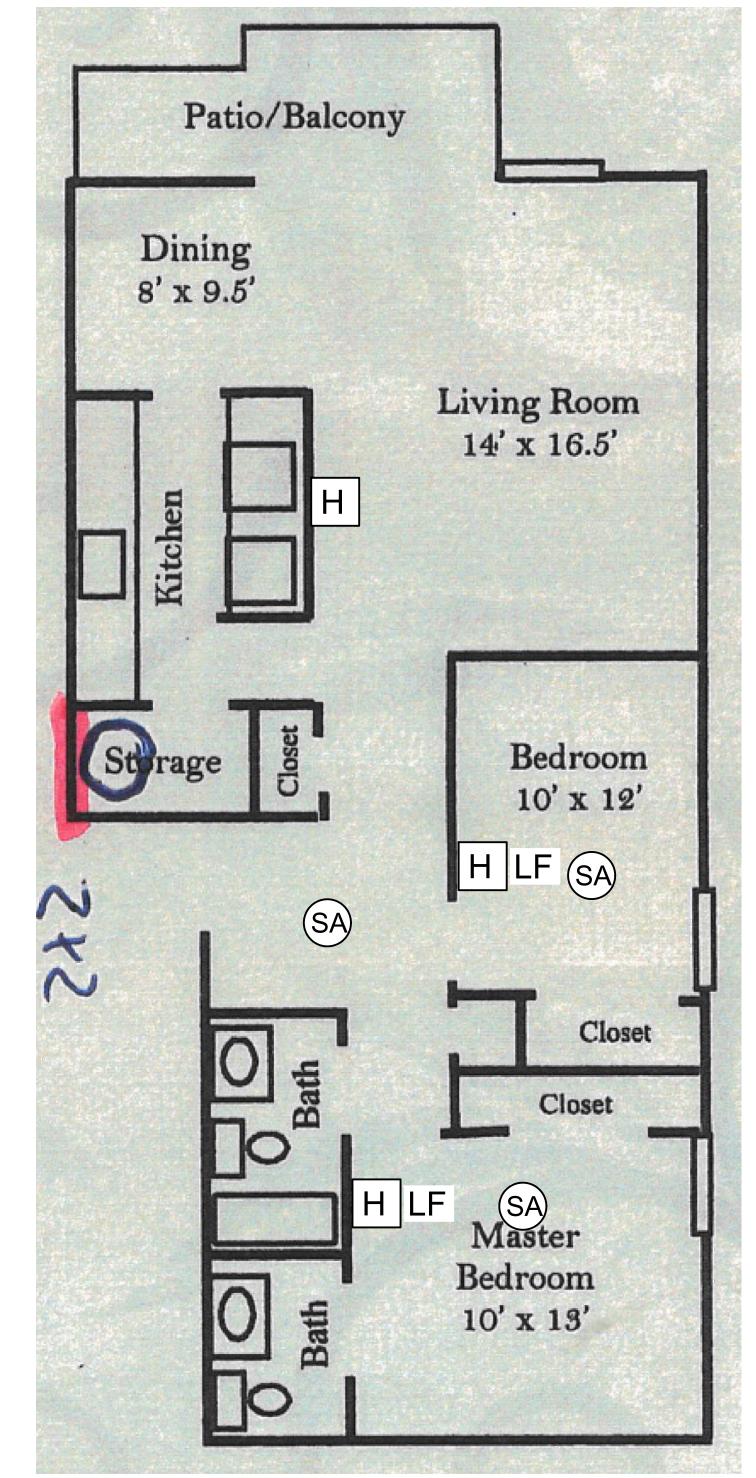


2 TYPICAL TWO BEDROOM, ONE & ONE-HALF BATH (870 SF)
SCALE: 1/4" = 1'-0"



BUILDING	FLOORS	UNITS	BEDROOMS	STORAGE	LAUNDRY
Α	3	12	18	2	1
В	3	18	30	2	1
С	3	12	18	2	1
D	3	18	30	2	1
E	3	18	30	2	1
F	3	12	18	2	1
G	3	12	18	2	1
Н	3	18	30	2	1
J	3	12	18	2	1
K	3	12	18	2	1
L	3	12	18	2	1
М	3	12	18	2	1
N	3	12	18	2	1
Р	3	18	30	2	1
TOTALS		198	312	28	14

**COMPLEX MATRIX** 



3 TYPICAL TWO BEDROOM, ONE & ONE-HALF BATH (1,035 SF)
SCALE: 1/4" = 1'-0"





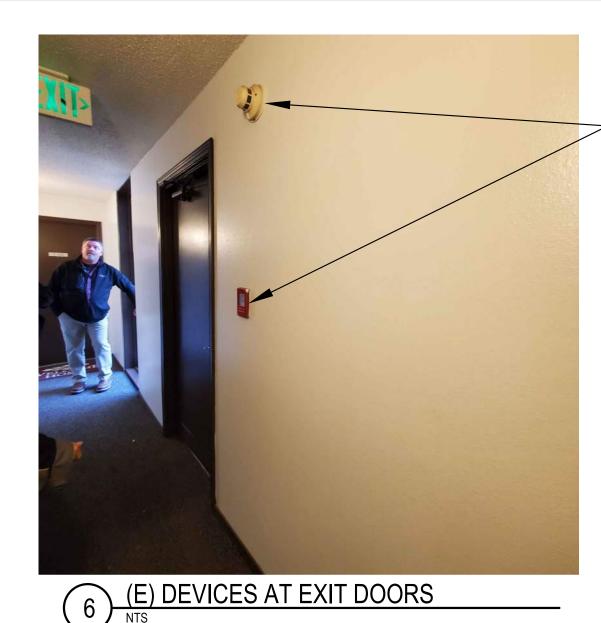
# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

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MD	JDO	T4.0
PROJECT STATUS:	•	T1.2
		KEY PLAN
ISSUE DATE:		
SHEET SIZE:		
ARCH D (24" x 36")		
DRAWING SCALE:		
		PROJECT NUMBER: KHCA2202



DEMOLISH FACP.
 INSTALL NEW ANNUNCIATOR PANEL.

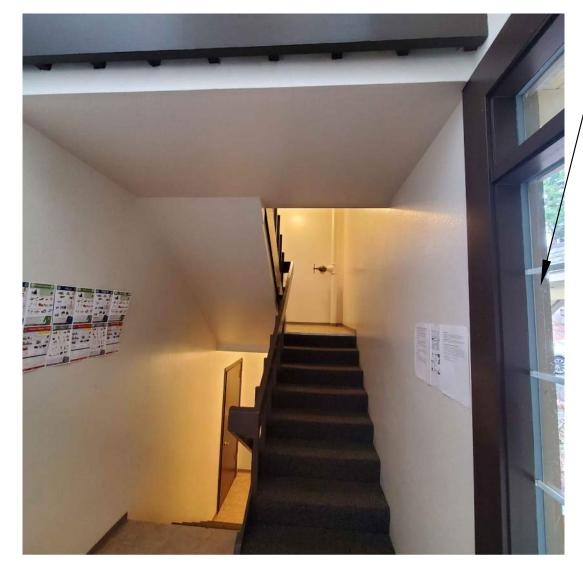


(E) FIRE ALARM DEVICES AT EXITREPLACE ALL (E) FIREALARM DEVICES (TYP).



TYPICAL STORAGE ROOM.
 STORAGE ROOM LOCATED ON
 FIRST AND THIRD FLOORS OF
 EACH BUILDING.

(E) FIRE ALARM PANEL



- VIEW FROM BUILDING ENTRY.
ENTRY IS AT SPLIT LEVEL WITH
FIRST FLOOR DOWN, SECOND
FLOOR UP. (E) FACP IS LOCATED ON
INTERIOR WALL ADJACENT TO
BIULDING ENTRY.

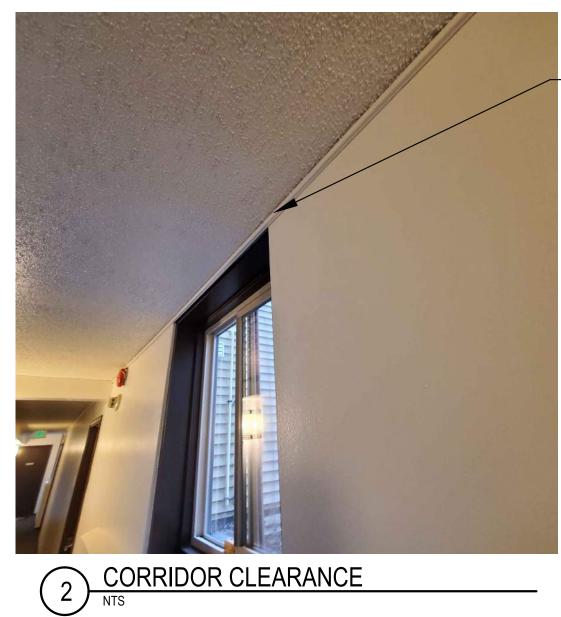


NOTE: LAUNDRY ROOM.

NOTE: LAUNDRY ROOM LOCATED

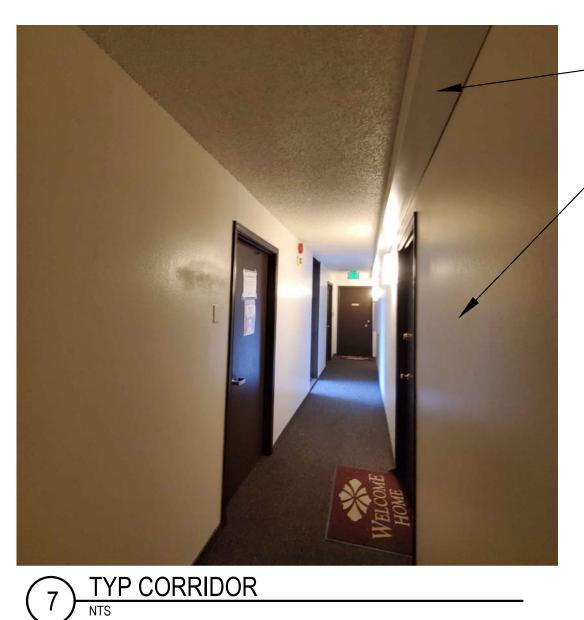
ON SECOND FLOOR OF EACH
BUILDING.

ELECTRICAL PANEL ACCESSED
 THROUGH LAUNDRY ROOM.



NOTE: WALL AND CEILING
 TEXTURE CONTAINS ASBESTOS.
 NOTE: CLEARANCE RESTRICTION
 ABOVE CORRIDOR WINDOWS.

8 TYP BUILDING ENTRY



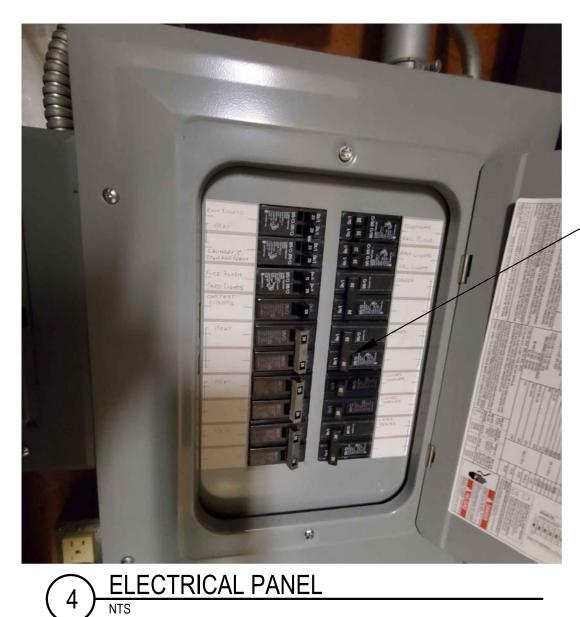
— (E) PLUMBING CHASE COVER. REFER TO 1/FA1.1

— TYPICAL CORRIDOR.

NOTE: WALL AND CEILING

TEXTURE MATERIAL CONTAINS

ASBESTOS (TYP. ALL BUILDINGS).



— (E) ELECTRICAL PANEL



REPLACE (E) FIRE ALARM DEVICES
 WITH NEW.
 BIDDERS RESPONSIBILITY TO
 MEET CITY OF BELLEVUE AND
 NFPA SIGNAL AND NOTIFICATION
 REQUIREMENTS.

1) DEVICES AT EXIT DOOR

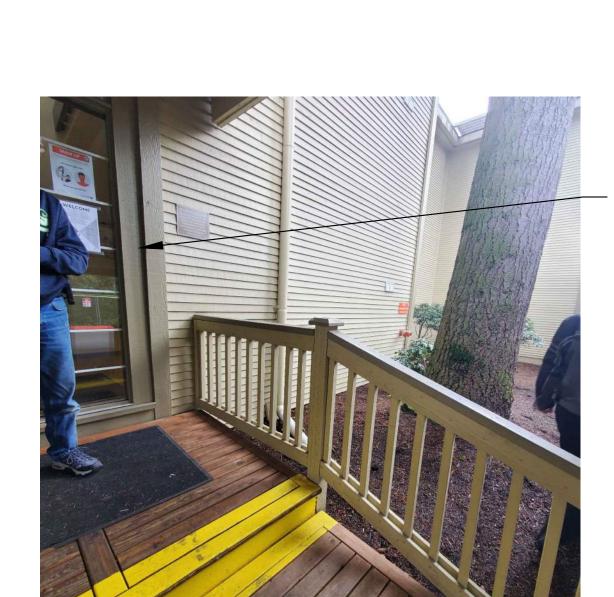
1011 SW KLICKITAT WAY, STE. 208
SEATTLE, WA 98134 | (206) 631-8442



# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

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		PROJECT NUMBER: KHCA2202



- BUILDING ENTRY. NOTE: THERE ARE NO ADA UNITS IN THE COMPLEX.

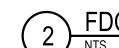


EXTERIOR HORN/STROBE DEVICE ABOVE BUILDING ENTRY AT ALL BUILDINGS IN COMPLEX. CONCEAL CONDUITS. NOTES: 1. THERE ARE NO EXISTING EXTERIOR HORN/STROBE DEVICES. NEW CONDUIT PATH AND BACK-BOXES REQUIRED. 2. VERIFY LOCATION W/ CITY OF BELLEVUE FIRE MARSHALL.





- FIRE DEPARTMENT CONNECTION.





UPPER UNITS ARE APARTMENT

FIRST FLOOR IS USED FOR OFFICE FUNCTIONS. FOR BIDDING PURPOSE ASSUME FIRST FLOOR IS A TYPICAL APARTMENT BUILDING LAYOUT.



- RE-USE (E) RACEWAY.

TYPICAL FINISHES IN INDIVIDUAL UNITS. NOTE: WALL AND CEILING TEXTURE CONTAIN ASBESTOS.

REPLACE (E) F.A. DEVICE. CONTRACTOR IS RESPONSIBLE FOR DEVICE LAYOUT THAT MEETS JURISDICTIONAL REQUIREMENTS.

5 BG ENTRY
NTS



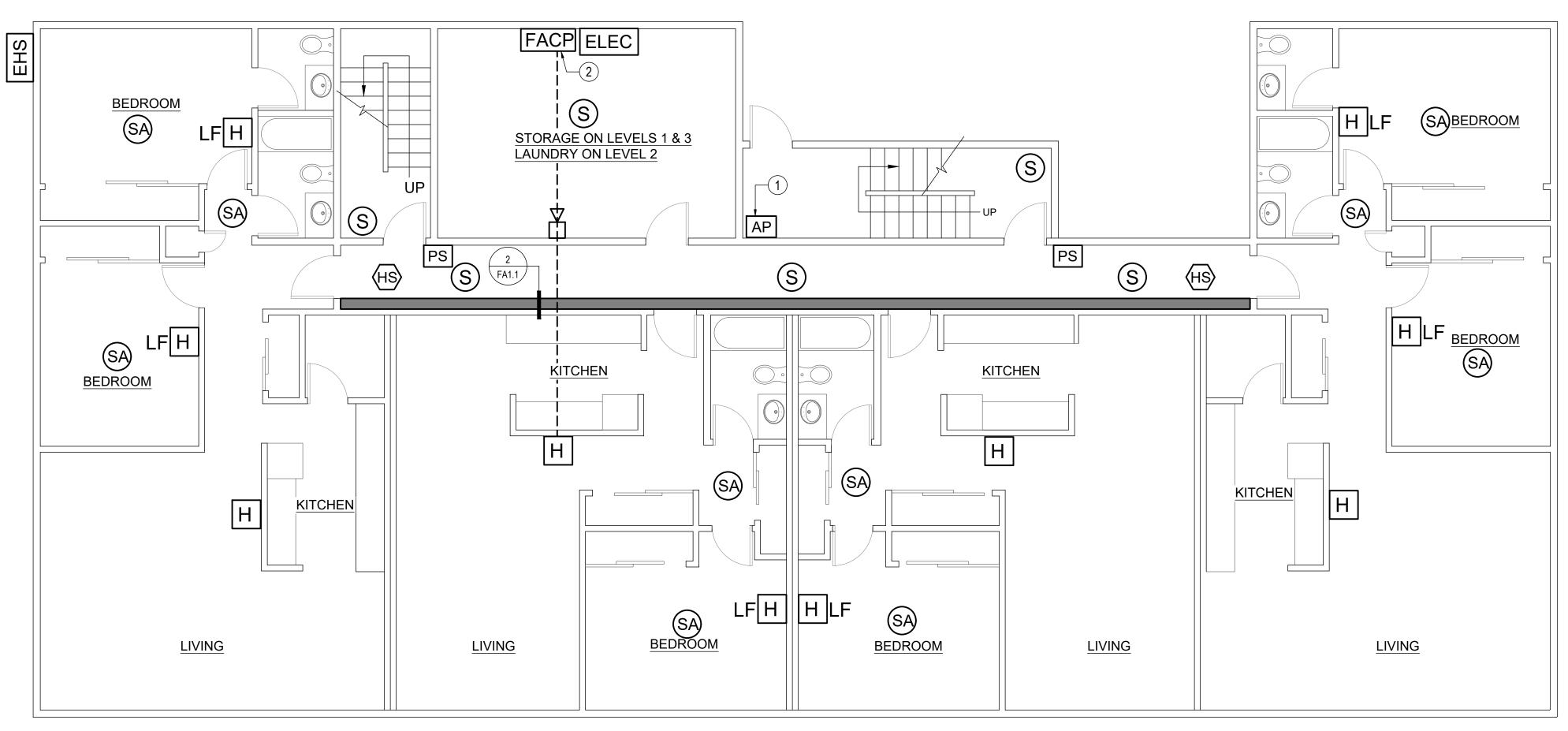




# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

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A	ARCH D (24" x 36")		
DR	RAWING SCALE:		
			PROJECT NUMBER: KHCA2202



TYPICAL F.A. DEVICE LAYOUT FOR BUILDINGS A, C, F, G, J, K, L, M, N - TYP. 1ST & 3RD FLOOR PLAN (2ND FLOOR SIMILAR)

SCALE: 3/16" = 1'-0" ALL BUILDINGS HAVE 3 FLOORS, 18 UNITS EACH BUILDING



# **LEGEND**:

HORN STROBE - WALL MOUNTED

H LF LOW-FREQUENCY SOUNDER

**PULL STATION** 

PS S SMOKE DETECTOR (SYSTEM SMOKE DETECTOR)

INTER CONNECTED, 120V, SMOKE ALARM CONNECTED TO NEAREST AVAILABLE UNSWITCHED SERVICE

### **GENERAL NOTES:**

- 1. (E) PLAN IS DIAGRAMMATIC TO SHOW NEW FIRE ALARM DEVICE REQUIREMENTS.
- 2. REPLACE FIRE ALARM PANEL AND REPLACE NAC POWER SUPPLIES AS REQUIRED.
- 3. FIRE ALARM RISER DESIGNED BY FIRE ALARM VENDOR.
- 4. REPLACE ALL (E) FIRE ALARM DEVICES AND ADD NEW AS REQUIRED TO MEET JURISDICTIONAL REQUIREMENTS
- 5. MINIMIZE DISTURBANCE OF (E) ACM CEILING AND WALL FINISHES. FOLLOW ALL LOCAL, STATE AND FEDERAL REQUIREMENTS ASSOCIATED W/ ACM DISTURBANCE.

HORN STROBE - CEILING MOUNTED

ANNUNCIATOR PANEL (ONE PER BUILDING)

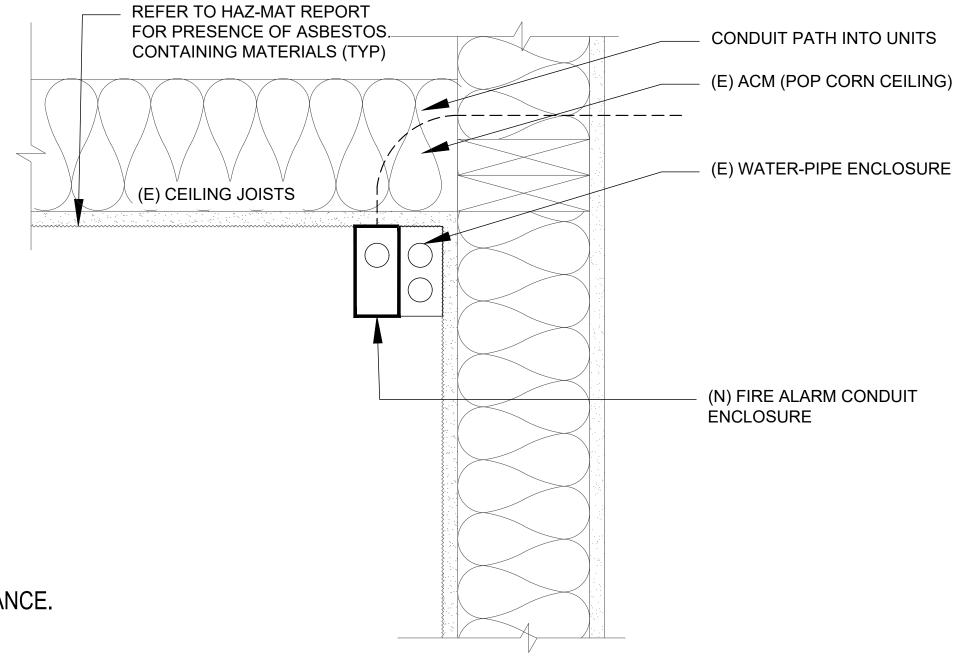
FACP FIRE ALARM CONTROL PANEL (ONE PER BUILDING)

EXTERIOR HORN STROBE (ONE PER BUILDING)

6. VERIFY LOCATION OF EXTERIOR HORN STROBE W/ FIRE MARSHALL.

### **KEY NOTES:**

- 1 FURNISH AND INSTALL ANNUNCIATOR PANEL AT MAIN ENTRY. MOUNT AT SAME LOCATION AS EXISTING F.A.C.P.
- (2) INSTALL F.A.C.P. ADJACENT TO (E) ELEC. PANEL. EXTEND 15 AMP DEDICTED CIRCUIT TO F.A.C.P.



SURFACE CABLE RACEWAY DETAIL, TYP. FOR ALL BUILDINGS

**NOTE**: THIS IS A SUGGESTED PATHWAY FOR RACEWAY ROUTING. OBTAIN OWNER APROVAL FOR ALTERNATE ROUTING OPTIONS.

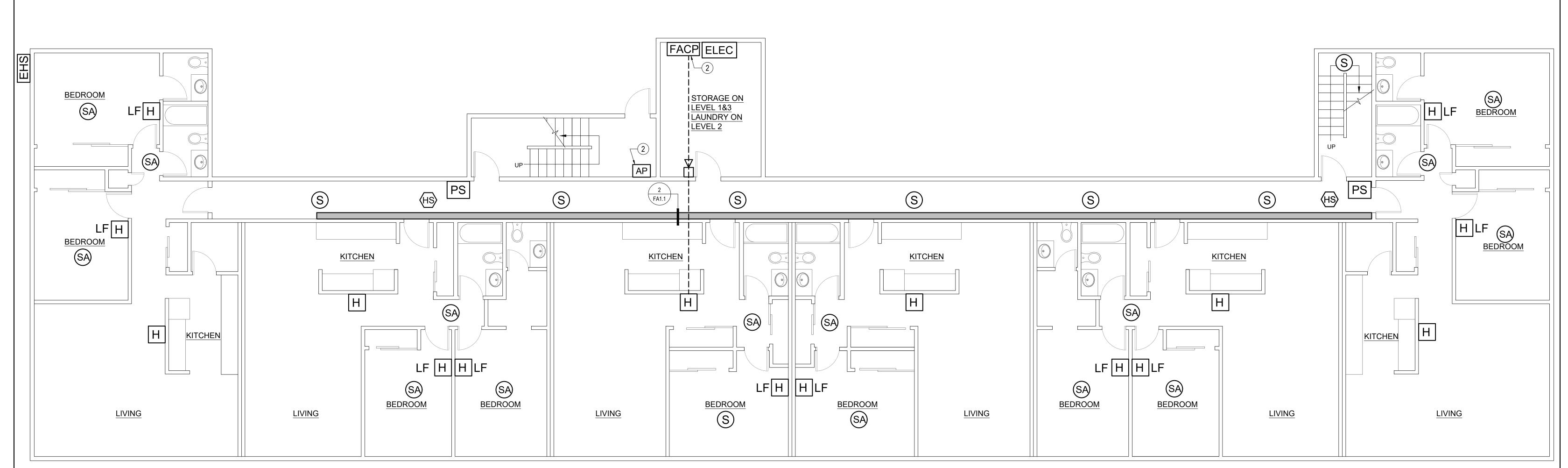




# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

DRAWN BY:	REVIEWED BY:	SHEET NO. / TITLE:
MD	JDO	
PROJECT STATUS:	•	FA1.1
ISSUE DATE:		TYP. FIRE ALARM  DEVICE LAYOUT PLAN
SHEET SIZE:		
ARCH D (24" x 36")		
DRAWING SCALE:		
		PROJECT NUMBER: KHCA2202



TYPICAL F.A. DEVICE LAYOUT FOR BUILDINGS B, D, E, H, P - TYP. 1ST & 3RD FLOOR PLAN (2ND FLOOR SIMILAR) SCALE: 3/16" = 1'-0"
ALL BUILDINGS HAVE 3 FLOORS, 18 UNITS EACH BUILDING



HORN STROBE - CEILING MOUNTED

ANNUNCIATOR PANEL (ONE PER BUILDING)

FACP FIRE ALARM CONTROL PANEL (ONE PER BUILDING)

EXTERIOR HORN STROBE (ONE PER BUILDING)

### **LEGEND**:

HORN STROBE - WALL MOUNTED

HORN

H LF LOW-FREQUENCY SOUNDER

**PULL STATION** 

PS S SMOKE DETECTOR (SYSTEM SMOKE DETECTOR)

INTER CONNECTED, 120V, SMOKE ALARM CONNECTED TO NEAREST AVAILABLE UNSWITCHED SERVICE

## **GENERAL NOTES:**

- 1. (E) PLAN IS DIAGRAMMATIC TO SHOW NEW FIRE ALARM DEVICE REQUIREMENTS.
- 2. REPLACE FIRE ALARM PANEL AND REPLACE NAC POWER SUPPLIES AS REQUIRED.
- 3. FIRE ALARM RISER DESIGNED BY FIRE ALARM VENDOR
- 4. REPLACE ALL (E) FIRE ALARM DEVICES AND ADD NEW AS REQUIRED TO MEET JURISDICTIONAL REQUIREMENTS
- 5. MINIMIZE DISTURBANCE OF (E) ACM CEILING AND WALL FINISHES. FOLLOW ALL LOCAL, STATE AND FEDERAL REQUIREMENTS ASSOCIATED W/ ACM DISTURBANCE.
- 6. VERIFY LOCATION OF EXTERIOR HORN STROBE W/ FIRE MARSHALL.

# **KEY NOTES:**

- 1 FURNISH AND INSTALL ANNUNCIATOR PANEL AT MAIN ENTRY. MOUNT AT SAME LOCATION AS EXISTING F.A.C.P.
- (2) INSTALL F.A.C.P. ADJACENT TO (E) ELEC. PANEL. EXTEND 15 AMP DEDICTED CIRCUIT TO F.A.C.P.





# CASCADIAN APARTMENTS FIRE ALARM UPGRADES

KING COUNTY HOUSING AUTHORITY

DRAWN BY:	REVIEWED BY:	SHEET NO. / TITLE:
MD	JDO	
PROJECT STATUS:		FA1.2
		TYP. FIRE ALARM
ISSUE DATE:		DEVICE LAYOUT PLAN
		DEVICE LATOUT PLAN
SHEET SIZE:		
ARCH D (24" x 36")		
DRAWING SCALE:		
		PROJECT NUMBER: KHCA2202

#### 1.0 BIDDER RESPONSIBILITY CRITERIA

- A. It is the intent of Owner to award a contract to a responsible bidder submitting the lowest responsive bid. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by the Owner to submit documentation demonstrating compliance with the criteria. The bidder must:
  - 1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
  - 2. Have a current Washington Unified Business Identifier (UBI) number;
  - 3. If applicable, have industrial insurance coverage for the bidder's employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW:
  - 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3);
  - 5. Have received training on the requirements related to public works and prevailing wage under chapter 39.04.350 RCW and chapter 39.12 RCW or be listed as exempt by the department of labor and industries on its website; and
  - 6. Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW;
  - 7. Before award of a public works contract, a bidder shall submit to the contracting agency a signed statement in accordance with RCW 9A.72.085 verifying under penalty of perjury that the bidder is in compliance with the responsible bidder criteria requirement of subsection A, 6 of this section.

#### 1.1 SUBCONTRACTOR RESPONSIBILITY

- A. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.
- B. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
  - 1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
  - 2. Have a current Washington Unified Business Identifier (UBI) number;
  - 3. If applicable, have:
    - a. Have Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;
    - b. A Washington Employment Security Department number, as required in Title 50 RCW;

- c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
- d. An electrical contractor license, if required by Chapter 19.28 RCW;
- e. An elevator contractor license, if required by Chapter 70.87 RCW.
- 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3);
- 5. Have received training on the requirements related to public works and prevailing wage under chapter 39.04.350 RCW and chapter 39.12 RCW or be listed as exempt by the department of labor and industries on its website; and
- 6. Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.

#### 1.2 SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA

- A. RCW 39.04.350(2) specifically authorizes municipalities to adopt relevant supplement criteria for determining bidder responsibility applicable to a particular project which the bidder must meet.
- B. For the work in this project a responsible/qualified Bidder must meet the following standards:
  - 1. Have a current certificate of registration as a contractor, in compliance with chapter 18.27 RCW, for the last three years under the same business name;
  - 2. Have a good record of past performance that includes, but is not limited to, high quality work, ability to complete projects on time, contractor's integrity, compliance with public policy, financial, contractual and tax obligations, as well as Federal and State rules and regulations in performing construction contracts.
  - 3. Have a current Experience Modification Rate (EMR) of 1.0 or less, or an average EMR rate of 1.0 or less over the last three years. The requirement may, at the Owner's sole discretion, be waived on review of a written explanation that includes details of accidents, L&I records, a Loss Ratio Report for the last five years, costs, dates of events, and changes that have been made by the contractor to reduce accidents. A current company Safety Plan shall also be reviewed.
  - 4. Bidder shall provide evidence of previous successful completion of Fire Alarm projects, of similar scope and complexity. Poor performance, lack or response, or failure to complete projects successfully within the contract time may be grounds for the rejection of bidder.
- C. Subcontractors shall have had three years minimum experience licensed in Washington State in the specific specialty contracting business.

#### 1.3 PREPARATION OF BIDS – CONSTRUCTION

- A. Bids must be submitted on the Bid Form furnished by the Owner.
- B. All fields and questions on required forms must be fully answered and complete. Failure to do so may result in the bid being declared non-responsive.

- C. Bidders shall acknowledge receipt of all addenda to this solicitation by inserting the addenda numbers in the space provided on the Bid Form. Failure to do so may result in the bid being declared non-responsive.
  - 1. Bidder is responsible for checking KCHA's website for addenda prior to submitting bid.
- D. In order for a bid to be considered responsive, bidders must submit the following signed documents with their bid package:
  - Bid Form
  - 2. Bidder's Information Form
  - 3. Bid Guarantee
- E. The Bidder agrees to hold the base bid prices for sixty (60) days from date of bid opening.

#### 1.4 BID GUARANTEE

- A. A bid guarantee in the amount of 5% of the base bid amount is required. Failure of the bidder to provide bid guarantee shall render the bid non-responsive.
- B. Acceptable forms of bid guarantee are: A bid bond or postal money order, or certified check or cashier's check made payable to King County Housing Authority.
- C. The Owner will return bid guarantees (other than bid bonds) to unsuccessful bidders as soon as practicable, but not sooner than the execution of a contract with the successful bidder. The successful bidder's bid guarantee will be returned to the successful bidder with its official notice to proceed with the work of the contract.

#### 1.5 AMENDMENTS TO INVITATION TO BID

- A. If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.
- B. Bidders shall acknowledge receipt of all addenda to this solicitation by inserting the addenda numbers in the space provided on the Bid Form. Failure to do so may result in the bid being declared non-responsive.
  - 1. Bidder is responsible for checking KCHA's website for addenda prior to submitting bid.
  - 2. Addenda will not be issued later than three (3) calendar days before the deadline for receipt of Bids except Addendum withdrawing the request for Bids or extending the deadline for receipt of Bids.

#### 1.6 PRE-BID MEETING

A. All potential bidders are strongly encouraged to attend. Oral statements may not be relied upon and will not be binding or legally effective.

#### 1.7 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

- A. Before submitting a bid, the Bidder shall carefully examine each component of the Contract Documents prepared for the Work and any other available supporting data so as to be thoroughly familiar with all the requirements.
- B. The Bidder shall obtain copies of all agencies and associations guidelines and standards cited in the Contract Documents and necessary to perform the Work, including full size reproductions of material provided by Owner, at their own expense.
- C. The Bidder shall make a thorough and reasonable examination of the project site, facility and conditions under which the Work is to be performed, including but not limited to: Building access; resident occupancy; fire lanes; landscaping; obstacles and character of materials which may be encountered; traffic conditions; public and private utilities; the availability and cost of labor; and available facilities for transportation, handling, and storage of materials and equipment.

#### 1.8 EXPLANATION TO PROSPECTIVE BIDDERS

A. Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must submit a request in writing to the Owner seven (7) calendar days before the bid due date. Oral explanations or instructions given before the award of a contract will not be binding. Questions shall be submitted to:

Michelle Jackson King County Housing Authority 600 Andover Park W Seattle, WA 98188 Email: MichelleJ@kcha.org

#### 1.9 PREVAILING WAGES

- A. Contractor shall pay no less than the Washington State Department of Labor and Industries (L&I) prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of L&I. The schedule of prevailing wage rates for the locality or localities of the Work is determined by the Industrial Statistician of L&I. It is the Contractor's responsibility to verify the applicable prevailing wage rate.
  - 1. L&I prevailing wage rates may be found at <a href="https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx">https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx</a>
  - 2. The Owner has determined that the work meets the definition of residential construction.
  - 3. The prevailing wage rates publication date is determined by the bid due date.
  - 4. The work is to be performed in King County.
  - 5. A copy of the prevailing wage rates is available at KCHA.
  - 6. A copy of the prevailing wage rates may be mailed on request.

#### 1.10 TAXES

- A. All taxes imposed by law shall be included in the bid amount. The Contractor shall pay the WSST to the Department of Revenue and shall furnish proof of payment to the Owner if requested.
- B. The retail sales tax does not apply to the gross contract price.

# INSTRUCTIONS TO BIDDERS

C. Prime and subcontractors are required to pay retail sales tax upon all purchases of materials, including prefabricated and precast items, equipment, leases or rentals of tools, consumables, and other tangible personal property which is installed, applied, attached, or otherwise incorporated in their work.

#### 1.11 INSURANCE

Must, for the duration of the contract, procure and maintain Builders Risk insurance as stated in Part 2 of the General Conditions. This shall be in addition to General Liability and Automobile Liability Coverage.

#### 1.12 ASSURANCE OF COMPLETION

A. Payment and performance bonds for 100% of the Contract Sum, including all Change Orders and taxes imposed by law, shall be furnished for the Work, and shall be in a form acceptable to the Owner.

#### 1.13 BID ERROR

- A. In the event Bidder discovers an error in its bid, the Bidder may, under certain conditions and if before the date and time that bids are due, modify, their bid, as detailed below:
  - 1. Prior to Date and Time Bids are Due:
    - a. A Bidder may withdraw its bid at any time prior to the date and time bids are due upon written request.
    - b. After withdrawing an original submitted bid, a Bidder may modify and resubmit its bid at any time prior to the date and time bids are due.
  - 2. After the Date and Time Bids are Due:
    - a. A bidder who submits an erroneous low bid may withdraw the bid. The bid withdrawal is permissible if there was an obvious error in the low bid, and the mistake is readily apparent from the bid itself.
    - b. Notification: Provide to the Owner, within 24 hours of bid opening, written notification of the bidder's intent to withdraw the bid due to error.
    - c. Documentation: Provide to the Owner within 48 hours of bid opening, documentation sufficient in content to justify bid withdrawal to the satisfaction of the Owner. Include description and evidence of the error.
    - d. Approval: the Owner will approve or reject the request for withdrawal in writing.
    - e. Any low bidder who withdraws its bid is prohibited from bidding on the same project if it is subsequently re-solicited.

#### 1.14 ADDITIVE OR DEDUCTIVE BID ITEMS

A. The low bid, for purposes of award, shall be the lowest responsive bid from a qualified responsible bidder offering the low aggregate amount for the base bid, plus additive or deductive bid alternates selected by the Owner.

# INSTRUCTIONS TO BIDDERS

#### 1.15 BID EVALUATION

- A. Responsive Bids: A bid will be considered responsive if it meets the conditions of the solicitation, in addition to but not limited to the following requirements:
  - 1. Bid is received not later than the time and date specified.
  - 2. Bid is submitted in the proper format on the form(s) provided.
  - 3. Bid includes the complete scope of work as defined in bid package.
  - 4. Bid does not include any exclusions or qualifications.
  - 5. Bid includes Unit and Lump Sum Costs as listed in Proposal Form.
  - 6. Forms are complete.
- B. After bid opening, bids will be checked for correctness of bid item prices, extensions and the total bid price. Discrepancies shall be resolved by accepting the bid item prices and the corrected extensions and total bid price.
- C. Responsible Bidders: the Owner will award contracts only to responsible bidders who demonstrate the ability to successfully perform under the terms and conditions as set forth in the Contract Documents and have successfully completed projects similar in scope and complexity.
  - 1. Bidders must demonstrate relevant experience on similar types of projects and submit detailed information as required on the Bidder Information Form.
- D. The Owner reserves the right to contact references and investigate past performance and qualifications of the Bidder, subcontractor, and project team members, including contacting third parties and/or the references provided by the Bidder.
  - 1. The Owner may contact references for other projects including those the Bidder did not identify and/or provided references.
  - 2. References may be asked to rate the performance of and describe their experience with project team members and subcontractors. Bidder Information may be solicited and evaluated on the following subjects: type and features of work; overall quality of project performance and quality of work; experience and technical knowledge and competence of the Bidder and Project Team Members; ability, capacity and skill to perform the Work; ability to manage submittals, requests for information, prevailing wage filings, and other paperwork; compliance with laws, ordinances, and contract provisions; and other information as deemed necessary.
  - 3. Poor reference(s) may be justification to determine a Bidder is not responsible.
- E. At the Owner's request, provide any additional explanation or information, which would assist in evaluating the qualifications of the Bidder, subcontractors, project team members, and bid price.
- F. The Owner will verify information submitted and if the lowest bidder is determined to be "not responsible," the Owner will issue, in writing, the specific reasons for this determination. The bidder may appeal this decision. The appeal must be in writing and shall be delivered to the Owner within two business days. The appeal may include additional information that was not included in the original bid documents. KCHA will make a final determination after the receipt of the appeal. The final determination may not be appealed.

#### 1.16 CONTRACT AWARD

# INSTRUCTIONS TO BIDDERS

- A. Bonding and Insurance: Contract award will be contingent on ability to secure payment/performance bonding, and Contractor's ability to meet the Owner insurance requirements as detailed in the Bid Documents.
- B. Must, for the duration of the contract, procure and maintain Builders Risk insurance as stated in Part 2 of the General Conditions. This shall be in addition to General Liability, Automobile Liability, and Professional Liability/Errors and Omissions (if applicable) Coverage.
- C. Bonding, insurance certificate with endorsements, and an approved Statement of Intent to Pay Prevailing Wages shall be submitted to the Owner within 14 days of contract award. A Notice to Proceed shall be issued immediately after receipt.
- D. Right to Reject Bids/Waiver: The Owner reserves the right to reject any or all bids or to waive any informalities or irregularities in the bidding.
- E. Retainage Funds: The Owner will not pay interest to the Contractor for accounts where retainage funds are maintained by the Owner. As part of the procurement by which the Contractor was selected for this work, the Contractor agrees to waive any other options and has made allowances for this waiver.

#### PART 1 - GENERAL PROVISIONS

#### 1.1 DEFINITIONS

- A. "Authority Having Jurisdiction (AHJ)": A federal, state, local, or other regional department, or an individual such as a fire official, labor department, health department, building official, or other individual having statutory authority.
- B. "Contract Documents" means the Instructions to Bidders, Specifications, Plans, General Conditions, Prevailing Wage Rates, Bid Form, Contract Form, other Special Forms, Drawings and Specifications, and all Addenda and modifications thereof.
- C. "Contract Sum" is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents.
- D. "Contract Time" is the number of consecutive Days allotted in the Contract Documents for achieving completion of the Work.
- E. "Contracting Officer" means the person delegated the authority by King County Housing Authority to enter into, and/or terminate this Contract. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer.
- F. "Contractor" means the person or other entity entering into the Contract with King County Housing Authority to perform all of the services or work required under the Contract.
- G. "Day" means calendar day, unless otherwise specified.
- H. "Final Acceptance" means the acceptance by Owner that the Contractor has completed the requirements of the Contract Documents.
- I. "Force Majeure" means those acts entitling Contractor to request an equitable adjustment in the Contract Time, including, but not limited to, unusually severe weather conditions which could not have been reasonably anticipated.
- J. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- K. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- L. "Liquidated Damages" means the amount prescribed in the Contract Documents to be deducted from any payments due or to become due Contractor, for each day's delay in completion of the Work beyond the time allowed in the Contract Documents as stated in the Notice to Proceed, plus any extensions of such time.
- M. "Manager" means the person who is an authorized agent of the King County Housing Authority to administer the Contract.
- N. "Notice to Proceed" means a notice from Owner to Contractor that defines the date on which the Contract Time begins to run.
- O. "Owner" means the King County Housing Authority or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.
- P. "Property Manager" means the property management company, its officers and employees.
- Q. "Provide": Furnish and install, complete and ready for the intended use.

- R. "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a Subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime Contract or a subcontract.
- S. "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another Subcontractor.
- T. "Work" means the construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and the manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

#### 1.2 EXECUTION AND INTENT

- A. The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Contract Documents.
- B. All work is to be executed in accordance with the Building Codes, as adopted by the Authority Having Jurisdiction, and other applicable codes and generally accepted industry standards. All products and materials are to be new and handled and applied in accordance with the manufacturer's recommendations.
- C. Contractor makes the following representations to Owner:
  - 1. The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents;
  - 2. Contractor has carefully reviewed the Contract Documents, had an opportunity to visit and examine the Project site, has become familiar with the local conditions in which the Work is to be performed, and has satisfied itself as to the nature, location, character, quality and quantity of the Work, the labor, materials, equipment, goods, supplies, work, permits, services and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof.
- D. The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

#### PART 2 - INSURANCE AND BONDS

#### 2.1 INSURANCE REQUIREMENTS FOR BUILDING TRADES CONTRACTORS

A. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or Subcontractors.

#### 2.2 MINIMUM SCOPE OF INSURANCE

- A. Contractors shall maintain coverages no less than:
  - 1. Insurance Services Office Commercial General Liability coverage including Products/Completed Operations.
  - 2. Insurance Services Office covering Automobile Liability, code 1 (any auto).
  - 3. Workers' Compensation insurance as required by State law and Employer's Liability Insurance.
  - 4. Builders Risk (Property / Course of Construction insurance covering for all risks of loss for all projects in excess of \$250,000.00).

#### 2.3 MINIMUM LIMITS OF INSURANCE

- A. Contractor shall maintain limits no less than:
  - 1. General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit of \$2,000,000.
  - 2. Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.
  - 3. Employer's Liability: \$1,000,000 per accident for bodily injury/sickness or disease.
  - 4. Builder Risk (Property) / Course of Construction: Completed value of project.

#### 2.4 DEDUCTIBLES AND SELF INSURED RETENTION

A. Any deductibles or self-insured retentions must be declared to and approved by the Owner. At the option of the Owner, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Owner, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the Owner guaranteeing payment of losses and related investigations, claim administration and defense expenses. NOTE: If this contract deals with hazardous materials or activities (i.e. lead based paint, asbestos, armed security guards) additional provisions covering those exposures must be included in order to protect the Owner's interests.

#### 2.5 OTHER INSURANCE PROVISIONS

- A. The policies are to contain, or be endorsed to contain, the following provisions:
  - 1. The Owner, the Property Manager, its officers, officials, employees, partners, agents and volunteers are to be covered as additional insureds under a "completed operations" type of additional insured endorsement with respect to general liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. The endorsement(s) effectuating the foregoing additional insured coverage shall be ISO form CG 20 10 11 85, or CG 20 10 10 01 issued concurrently with CG 20 37 10 01, or their equivalent as long as it provides additional insured coverage, without limitation, for completed operations; (ii) automobile liability arising out of vehicles owned, leased, hired, or borrowed by or on behalf of the Contractor; (iii) any insurance written on a claims made basis, shall have a retroactive date that coincides with, or precede, the commencement of any work under this contract. Evidence of such coverage shall be maintained for a minimum of six (\_6\_) years beyond the expiration of the project.
  - 2. King County will not accept Certificates of Insurance Alone. Improperly Completed Endorsements will be returned to your insured for correction by an authorized representative of the insurance company.
  - 3. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the Owner, its officers, officials, agents, partners, employees, and volunteers. Any insurance or self-insurance maintained or expired by the Owner, its officers, officials, agents, partners, employees, volunteers, or shall be excess of the Contractor's insurance and shall not contribute with it. King County Housing Authority's Insurance is Non-Contributory in Claims Settlement Funding.
  - 4. The "General description of agreement(s) and/or activity(s) insured" shall include reference to the activity and/or to either specific King County Housing Authority's; project of site name, contract number, lease number, permit number or construction approval number.
  - 5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled or materially changed, except after thirty (30) days' [ten (10) days for non-payment of premium] prior written notice by certified mail, return receipt requested, has been given to the Owner.
  - Maintenance of the proper insurance for the duration of the contract is a material element of the contract.
     Material changes in the required coverage or cancellation of the coverage shall constitute a material breach of the contract.
  - 7. Builders Risk / Course of Construction policies shall contain the following provisions:
    - a. The King County Housing Authority shall be named as loss payee.
    - b. The insurer shall waive all rights of subrogation against the Owner and the Property Manager, its officers, officials, employees and volunteers.

#### 2.6 ACCEPTABILITY OF INSURERS

A. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII. The name of the Insurance Company underwriting the coverage and its address shall be noted on the endorsement form. Contractors must provide written verification of their insurer's rating.

#### 2.7 VERIFICATION OF COVERAGE

A. Contractor shall furnish the Owner with original certificates and amendatory endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Owner before work commences in sufficient time to permit contractor to remedy any deficiencies. The Owner reserves the right to require complete, certified copies of all required insurance policies or pertinent parts thereof, including endorsements affecting the coverage required by these specifications at any time.

#### 2.8 SUBCONTRACTORS

A. Subcontractors shall include the Contractor as additional insured under their policies. All coverage's for subcontractors shall be subject to all of the requirements stated herein. Contractor shall be responsible for the adequacy of required coverages for subcontractors, and compile related certificates of insurance and endorsements evidencing subcontractors' compliance.

#### 2.9 PAYMENT AND PERFORMANCE BONDS

A. Payment and performance bonds for 100% of the Contract Award Amount shall be furnished for the Work, using the Payment Bond and Performance Bond form AIA – form A312. Change order increases of cumulative 15% increments require revisions to the bond to match the new Contract Sum.

#### PART 3 - PERFORMANCE

#### 3.1 CONTRACTOR CONTROL AND SUPERVISION

- A. Contractor shall be solely responsible for, and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, and shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.
- B. Contractor shall enforce strict discipline and good order among Contractor's employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Owner may, by Notice, request Contractor to remove from the Work or Project site any employee Owner reasonably deems incompetent, careless, or otherwise objectionable.
- C. The Contractor shall perform on the site, and with its own organization, work equivalent to at least 12% of the total amount of work to be performed under the contract.
- D. Work Hours: The Contractor's allowable hours of operation shall be limited to those hours between 8:00 A.M. and 6:00 P.M. Monday to Friday excluding public holidays.

#### 3.2 PERMITS, FEES, AND NOTICES

A. Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and coordinate inspections necessary for proper execution and completion of the Work. Prior to final payment, the approved, signed permits shall be delivered to Owner.

#### 3.3 PREVAILING WAGES

- A. Statutes of the State of Washington RCW 39.12 as amended shall apply to this contract. Requirements, in brief, are stated below:
  - There shall be paid each laborer or mechanic of the Contractor or sub-Contractor engaged in work on the project under this contract in the trade or occupation listed in the schedule of Wage Rates, as determined

- by the Department of Labor and Industries, not less than the hourly wage rate listed therein, regardless of any contractual relationship which may be alleged to exist between the Contractor and any subcontractor and such laborers and mechanics.
- 2. The "prevailing rate or wage" contained in the wage determination include health and welfare fund contributions and other fringe benefits collectively bargained for by the various management and labor organizations. Prevailing wages shall be paid based on the most recent semi-annual list as required by the Department of Labor and Industries (L&I).
- 3. In case any dispute arises as to what are the prevailing rates for wages of work of a similar nature, and such disputes cannot be resolved by the parties involved, including labor and management representatives, the matter shall be referred for arbitration to the Director of the Department of Labor and Industries of the State of Washington, and the Director's decision shall be final and conclusive and binding on all parties involved in the dispute.
- B. Before commencing the Work, Contractor shall file a statement of "Intent to Pay Prevailing Wages."
- C. After completion of the Work, Contractor shall file an "Affidavit of Wages Paid."

#### 3.4 EQUAL EMPLOYMENT OPPORTUNITY

- A. During performance of the Work:
  - Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, marital status, the presence of any physical, sensory, or mental disability, sexual orientation, Vietnam-era veteran status, disabled veteran status or political affiliation, nor commit any unfair practices as defined in RCW 49.60.
  - 2. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, of any physical, sensory, or mental disability, sexual orientation, Vietnam-era veteran status, disabled veteran status, or political affiliation.
  - 3. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and orders in regard to Equal Employment Opportunity including but not limited to Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and the rules, regulations, and orders of the Secretary of Labor. The Contractor shall include the terms of this Clause in every subcontract so that such term shall be binding on each Subcontractor.
  - 4. Non-Discrimination R.C.W. 49.60: These special requirements establish minimum requirements for affirmative action and are intended to define and implement the basic discrimination provisions of these specifications. Failure to comply with these requirements may constitute grounds for application of contract default.

#### 3.5 SAFETY PRECAUTIONS

- A. In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions. For these purposes, the Contractor shall:
  - 1. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific safety plan to the Owner's representative prior to the initial scheduled construction meeting.
  - 2. Provide adequate safety devices and measures including, but not limited to, the appropriate safety literature, notice, training, permits, placement and use of barricades, signs, signal lights, ladders, scaffolding, staging, runways, hoist, construction elevators, shoring, temporary lighting, grounded outlets, wiring, hazardous materials, vehicles, construction processes, and equipment required by Chapter 19.27 RCW, State Building Code (Uniform Building, Electrical, Mechanical, Fire, and Plumbing Codes); Chapter 212-12 WAC, Fire Marshal Standards, Chapter 49.17 RCW, WISHA; Chapter 296-155 WAC, Safety Standards for Construction Work; Chapter 296-65 WAC; WISHA Asbestos Standard; WAC 296-62-071, Respirator Standard; WAC 296-62, General Occupation Health Standards, WAC 296-24, General Safety and Health Standards, WAC 296-24, General Safety and Health Standards, Chapter 49.70 RCW, and Right to Know Act.

- 3. Comply with the State Environmental Policy Act (SEPA), Clean Air Act, Shoreline Management Act, and other applicable federal, state, and local statutes and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources.
- 4. Post all permits, notices, and/or approvals in a conspicuous location at the construction site.
- 5. Provide any additional measures that the Owner determines to be reasonable and necessary for ensuring a safe environment in areas open to the public. Nothing in this part shall be construed as imposing a duty upon the Owner to prescribe safety conditions relating to employees, public, or agents of the Contractors.
- B. Contractor to maintain safety records: Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.
- C. Contractor to provide HazMat training: Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
  - 1. Information. At a minimum, Contractor shall inform persons working on the Project site of:
    - a. WAC: The requirements of chapter 296-62 WAC, General Occupational Health Standards;
    - b. Presence of hazardous chemicals: Any operations in their work area where hazardous chemicals are present; and
    - c. Hazard communications program: The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets required by chapter 296-62 WAC.
  - 2. Training. At a minimum, Contractor shall provide training for persons working on the Project site which includes:
    - a. Detecting hazardous chemicals: Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
    - b. Hazards of chemicals: The physical and health hazards of the chemicals in the work area;
    - c. Protection from hazards: The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
    - d. Hazard communications program: The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- D. Hazardous, toxic or harmful substances: Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
  - 1. Illegal use of dangerous substances: Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site, any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored on the Project site.
  - 2. Contractor notifications of spills, failures, inspections, and fines: Contractor shall promptly notify Owner of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Owner of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.

- E. Public safety and traffic: All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- F. Contractor to act in an emergency: In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- G. No duty of safety by Owner: Nothing provided in this section shall be construed as imposing any duty upon Owner with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

#### 3.6 INDEPENDENT CONTRACTOR

A. The Contractor and Owner agree the Contractor is an independent contractor with respect to the services provided pursuant to this Contract. Nothing in this Contract shall be considered to create a relationship of employer and employee between the parties hereto. Neither the Contractor nor any employee of the Contractor shall be entitled to any benefits accorded Owner employees by virtue of the services provided under this Contract. The Owner shall not be responsible for withholding or otherwise deducting federal income tax or social security or contributing to the State Industrial Insurance Program, or otherwise assuming the duties of an employer with respect to the Contractor, or any employees of the Contractor.

#### 3.7 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

- A. Contractor shall confine all operations, including storage of materials, to Owner-approved areas.
- B. Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site.
- C. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Final Acceptance, and shall repair or replace without cost to Owner any damage or loss that may occur.

#### 3.8 PRIOR NOTICE OF EXCAVATION

A. Prior to any excavation Contractor shall engage a locate service for all underground facilities or utilities. Contractor shall pay all fees for locator services and pay for all damages caused by excavation.

#### 3.9 UNFORESEEN PHYSICAL CONDITIONS

- A. Notice requirement for concealed or unknown conditions: If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Owner promptly and in no event later than seven Days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.
- B. Adjustment in Contract Time and Contract Sum: If such conditions differ materially and cause a change in Contractor's cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum, or both, provided it makes a request therefore as provided in Part 5.

# 3.10 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES, AND IMPROVEMENTS

- A. Contractor shall protect from damage all existing conditions, including soils, structures, equipment, improvements, utilities, and vegetation at or near the Project site; and on adjacent property of a third party, the locations of which are made known to or should be known by Contractor. Contractor shall repair any damage, including that to the property of a third party, resulting from failure to comply with the requirements of the Contract Documents, any defects of equipment, material, workmanship or design furnished by the Contractor, or failure by Contractor or subcontractor at any tier to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, Owner may have the necessary work performed and charge the cost to Contractor.
- B. New work which connects to existing work shall correspond in all respects with that to which it connects and/or be similar to existing work unless otherwise required by the Specifications.

#### 3.11 MATERIAL AND EQUIPMENT

- A. All equipment, material, and articles incorporated into the Work shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of Owner, is equal to that named in the Specifications, unless otherwise specifically provided in the Contract Documents.
- B. Substitutions shall be considered where qualities and attributes including, but not limited to, cost, performance, weight, size, durability, visual effect, and specific features and requirements indicated are deemed equal or better by the Owner at the Owner's sole discretion. All requests for substitutions shall be made in writing to Owner and shall not be deemed to be approved unless approved in writing by Owner.

#### 3.12 CORRECTION OF NONCONFORMING WORK

- A. Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Final Acceptance.
- B. If Contractor fails to correct nonconforming Work, Owner may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.

#### 3.13 CLEAN UP

A. Contractor shall at all times keep the Project site, including hauling routes, infrastructures, utilities, and storage areas, free from accumulations of waste materials. Before completing the Work, Contractor shall remove from the premises its rubbish, tools, scaffolding, equipment, and materials. Upon completing the Work, Contractor shall leave the Project site in a clean, neat, and orderly condition satisfactory to Owner. If Contractor fails to clean up as provided herein, and after reasonable notice from Owner, Owner may do so and the cost thereof shall be charged to Contractor.

#### 3.14 SUBCONTRACTORS AND SUPPLIERS

- A. Contractor shall utilize Subcontractors and suppliers which are experienced and qualified.
- B. By appropriate written agreement, Contractor shall require each Subcontractor to be bound to Contractor by terms of those Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Owner in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Owner in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.

- C. Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors. No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.
- D. It is the Contractor's responsibility to pay its Subcontractors and material suppliers on a timely basis. The Owner reserves the right to withhold a portion of the Contractor's payment if the Contractor fails to make timely payments to the Subcontractors and material suppliers.
- E. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Owner and any Subcontractor; or any persons other than Owner and Contractor.
- F. The Contractor shall not enter into any subcontract with any subcontractor who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or by any state, territory, or municipality.

#### 3.15 INDEMNIFICATION

- A. The Contractor hereby agrees to indemnify, defend, and hold harmless the Authority, its successors and assigns, director, officers, officials, employees, agents, partners and volunteers (all foregoing singly and collectively (Indemnities") from a and against any and all claims, losses, harm costs, liabilities, damages and expenses, including, but not limited to, reasonable attorney's fees arising or resulting from the performance of the services, or the acts or omissions of the Contractor its successors, and assigns, employees, subcontractors or anyone acting on the contractor's behalf in connection with this Contract or its performance of this Contract.
- B. Provided, however, that the Contractor will not be required to indemnify, defend, or save harmless the indemnitee as provided in the preceding paragraphs of this section if the claim, suit, or action for injuries, death, or damages is caused by the sole negligence of the indemnitee. Where such claims, suites, or actions result from the concurrent negligence of (a) the indemnitee or the indemnitee's agents or employees and (b) the Contractor or the Contractor's agent or employee, the indemnity provisions provided in the proceeding paragraphs of this section shall be valid and enforceable only to the extent of the Contractor's negligence or the negligence of its agents and employees..
- C. The foregoing indemnity is specifically and expressly intended to constitute a waiver of the Contractor's immunity under Washington's Industrial Insurance act, RCW Title 51. The parties acknowledge that these provisions were specifically negotiated and agreed upon by them. If any portion of this indemnity clause is invalid or unenforceable, it shall be deemed excised and the remaining portions of the clause shall be given full force and effect.
- D. The Contractor hereby agrees to require all its Subcontractors or anyone acting under its direction or control or on its behalf in connection with or incidental to the performance of this Contract to execute an indemnity clause identical to the preceding clause, specifically naming the Owner as indemnity, and failure to do so shall constitute a material breach of this Contract by the Contractor.

#### 3.16 PROHIBITION AGAINST LIENS

A. The Contractor is prohibited from placing a lien on the Owner's property. This prohibition shall apply to all subcontractors of any tier and all materials suppliers, in accordance with RCW 35.82.190.

#### 3.17 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

#### A. Liquidated Damages

Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. The liquidated damage amounts set forth will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Owner, and may be retained by the Owner and deducted from any payments to the Contractor.

If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed.

#### 3.18 WAIVER AND SEVERABILITY

- A. The failure or delay of either party to insist on performance of any provision of the Contract, or to exercise any right or remedy available under the Contract, shall not be construed as a waiver of that provision, right, or remedy in any later instance. Waiver or breach of any provision of the Contract shall not be construed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of the Contract, unless the Contract is modified pursuant to the Clause entitled "Contract Modifications" herein.
- B. If any provision of the Contract is or becomes void or unenforceable by operation of law, the remaining provisions shall be valid and enforceable.

#### PART 4 - PAYMENTS AND COMPLETION

#### 4.1 CONTRACT SUM

- A. The Contract Sum shall include all taxes imposed by law and properly chargeable to the Project, including sales tax. The Contractor shall pay the WSST to the Department of Revenue and shall furnish proof of payment to the Owner if requested.
- B. The retail sales tax does not apply to the gross contract price.
- C. Prime and subcontractors are required to pay retail sales tax upon all purchases of materials, including prefabricated and precast items, equipment, leases or rentals of tools, consumables, and other tangible personal property which is installed, applied, attached, or otherwise incorporated in their work.

#### 4.2 APPLICATION FOR PAYMENT

- A. At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an Application for Payment for Work completed in accordance with the Contract Documents. Each application shall be supported by such substantiating data as Owner may require.
- B. Each invoice shall include the following statement: "I hereby certify that the items listed are proper charges for materials, merchandise or services provided to the King County Housing Authority, and that all goods and/or services have been provided; that prevailing wages have been paid in accordance with the approved statements of intent filed with the Department of Labor and Industries; and that sub-contractors and/or suppliers have been paid, less earned retainage, as their interest appears in the last payment received."
- C. Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. Each Application for Payment shall be consistent with previous applications and payments.
- D. Owner shall retain 5% of the amount of each progress payment until 45 Days after Final Acceptance and receipt of all documents required by law or the Contract Documents, including releases by Washington State Employment Security Department and Washington State Department of Revenue, Department of Labor & Industries, and consent of surety to release of the retainage.
- E. Waivers of Lien: With each Application for Payment, submit conditional waivers lien from every entity who is lawfully entitled to file a lien arising out of the Contract and related to the Work covered by the payment.
  - 1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
  - 2. When an application shows completion of an item, submit final or full waivers.
  - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
    - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.

- F. Final Payment Application: Submit final Application for Payment with releases and close out supporting documentation.
- G. Approved payments shall be mailed to the Contractor within 30 days.

#### 4.3 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT

- A. The Owner shall make a final inspection of the Work on receipt of (1) written notice from the Contractor that the Work is ready for final inspection and (2) a final Application for Payment. When the Owner finds the Work acceptable and fully performed under the Contract Documents, and the Contractor has delivered to the Owner all warranties, permits, and operations manuals, the Owner will issue a Notice of Final Completion.
- B. Acceptance of final payment by Contractor, or any Subcontractor, shall constitute a waiver and release to Owner of all claims by Contractor, or any such Subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of Owner relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in PART 7 .

#### PART 5 - CHANGES

#### 5.1 CHANGE IN THE WORK

- A. Owner may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Owner causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in 5.2 and 5.3.
- B. Pending agreement on the terms of the Change Order, Owner may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Owner's approval.
- C. The Contractor agrees that any change in the Contract Amount or Contract Time provided in a Change Order is full and complete compensation to the Contractor for the change(s) to the work, deleted work, modified work, direct or indirect impact on the Contractor's schedule, and for any equitable adjustment or time extension to which the Contractor may be entitled to in this Change Order, pursuant to the Contract between the Owner and Contractor.

#### 5.2 CHANGE IN THE CONTRACT SUM

- A. Change Order Pricing Fixed Price: When the fixed price or time and materials method is used to determine the value of any Work covered by a Change Order, or of a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:
  - Contractor's Change Order proposal, or request for adjustment in the Contract Sum, shall be accompanied
    by a complete itemization of the costs, including labor, material, subcontractor costs, and overhead and
    profit. The costs shall be itemized in the manner set forth below, and shall be submitted on breakdown
    sheets with documentation in a form approved by Owner.
  - 2. Any request for adjustment of Contract Sum shall include only the following items:
    - a. Craft labor costs for Contractors and Subcontractors.
      - Basic wages and benefits: Hourly rates and benefits according to applicable prevailing wages.
      - 2) Direct supervision shall not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
      - 3) Worker's Insurance. Direct contributions to the State for industrial insurance, medical aid, and supplemental pension by the class and rates established by L&I.
      - 4) Federal Insurance. Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
      - 5) Safety and small tools: 4% of the sum of the amounts calculated in (1), (2), and (3) above.

- b. Material Costs: Material costs and applicable sales tax shall be developed from actual known costs, supplier quotations or standard industry pricing guides and shall consider all available discounts. Freight costs, express charges, or special delivery charges shall be itemized.
- c. Equipment Costs: Itemization of the type of equipment and the estimated or actual length of time the equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for equipment and applicable sales tax only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. The Date Quest Rental Rate (Blue Book) shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed 50% of the applicable rate.
- d. Allowance for Overhead: This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time and any other cost incidental to the change in the Work. This allowance shall be strictly limited in all cases an amount not to exceed the following:
  - For Contractor, for any Work actually performed by Contractor's own forces, 16% of the cost.
  - 2) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% of the cost.
  - 3) For Contractor, for any Work performed by its Subcontractor(s), 6% of the amount due each Subcontractor.
  - 4) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 5% of the amount due the sub-Subcontractor.

#### e. Allowance for Profit:

- 1) For Contractor or Subcontractor of any tier for work performed by their forces, 5% of the cost developed in accordance with subsections a, b & c above.
- For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 5% of the Subcontractor cost.
- f. Insurance or Bond Premium: The costs of any change or additional premium of Contractor's liability insurance and public works bond arising directly from the changed Work. The costs of any change in insurance or bond premium shall be added after overhead and profit are calculated.

#### B. Change Order Pricing - Unit Prices

- 1. Work on a unit-price basis as stated in the Specifications and at the price submitted in the Bid Form or as subsequently modified.
  - a. Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead and profit, and bond and insurance costs; and
  - b. Quantities must be supported by field measurement verified by Owner.

#### 5.3 CHANGE IN THE CONTRACT TIME

- A. The Contract Time shall only be changed by a Change Order. Contractor shall immediately notify Owner, and shall include any request for a change in the Contract Time in its Change Order proposal.
- B. If the time of Contractor's performance is changed due to an act of Force Majeure, Contractor shall request for an equitable adjustment in the Contract Time in writing within 24-hours of the occurrence.

#### PART 6 - CLAIMS AND DISPUTE RESOLUTION

#### 6.1 CLAIMS PROCEDURE

- A. If the parties fail to reach agreement regarding any dispute arising from the Contract Documents, Contractor's only remedy shall be to file a Claim with Owner within 30 Days from Owner's final offer.
- B. The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented.
- C. After Contractor has submitted a fully-documented Claim, Owner shall respond, in writing, to Contractor with a decision within 30 Days from the date the Claim is received.
- D. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Owner's written decision as set forth above shall be final and conclusive as to all matters set forth in the Claim.
- E. Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time, shall be conclusively deemed to have been waived by the Contractor unless timely made in accordance with the requirements of this section.

#### 6.2 ARBITRATION

- A. If Contractor disagrees with Owner's decision rendered in accordance with paragraph 6.1C, Contractor shall provide Owner with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than 30 Days after the date of Owner's decision on such Claim; failure to demand arbitration within said 30 Day period shall result in Owner's decision being final and binding upon Contractor and its Subcontractors.
  - 1. Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provided to Owner. The parties shall negotiate or mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service.
- B. All Claims arising out of the Work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the superior court having jurisdiction thereof. No independent legal action relating to or arising from the Work shall be maintained.

#### 6.3 CLAIMS AUDITS

- A. All Claims filed against Owner shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim or to permit Owner access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.
  - 1. In support of Owner audit of any Claim, Contractor shall promptly make available to Owner all records relating to the Work.

#### PART 7 - TERMINATION OF THE WORK

#### 7.1 TERMINATION BY OWNER FOR CAUSE

- A. Owner may, upon a written Notice to Contractor and to its surety, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for cause upon the occurrence of any one or more of the following events:
  - 1. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Completion of the Work within the Contract Time;
  - 2. Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency;
  - 3. Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;
  - 4. Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
  - 5. Contractor repeatedly fails to make prompt payment due to Subcontractors, suppliers, or for labor;
  - 6. Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or

- 7. Contractor is otherwise in material breach of any provision of the Contract Documents.
- B. Upon termination, Owner may at its option:
  - 1. Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of, and to finish, the Work;
  - 2. Finish the Work by whatever other reasonable method it deems expedient.
- C. Owner's rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.
- D. When Owner terminates the Work in accordance with this section, Contractor shall take the actions set forth in paragraph 7.2B, and shall not be entitled to receive further payment until the Work is accepted.
- E. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E services and expenses made necessary thereby and any other extra costs or damages incurred by Owner in completing the Work, or as a result of Contractor's actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner. Contractor shall also be liable for liquidated damages until such reasonable time as may be required for Completion. These obligations for payment shall survive termination.
- F. Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.
- G. If Owner terminates Contractor for cause, and it is later determined that none of the circumstances set forth in 7.1A exist, then such termination shall be deemed a termination for convenience pursuant to 7.2.

#### 7.2 TERMINATION BY OWNER FOR CONVENIENCE

- A. Owner may, upon Notice, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for the convenience of Owner.
- B. Unless Owner directs otherwise, after receipt of a Notice of termination for either cause or convenience, Contractor shall promptly:
  - 1. Stop performing Work on the date and as specified in the notice of termination;
  - 2. Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;
  - 3. Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;

#### PART 8 - MISCELLANEOUS PROVISIONS

#### 8.1 RECORDS KEEPING AND REPORTING

- A. The Contractor and all Subcontractors shall maintain accounts and records in accordance with State Auditor's procedures, including personnel, property, financial and programmatic records which sufficiently and properly reflect all direct and indirect costs of any nature expended and services performed in the performance of this Contract and other such records as may be deemed necessary by the Owner to ensure proper accounting for all funds contributed by the Owner to the performance of this Contract and compliance with this Contract.
- B. The Contractor, and its Subcontractors, shall maintain these records for a period of six (6) years after the date of Final Acceptance.

#### 8.2 AUDITS AND INSPECTIONS

A. The records and documents with respect to all matters covered by this Contract shall be subject at all times to inspection, review or audit by the Owner or any other government agency so authorized by law during the

performance of this Contract. The Owner shall have the right to an annual audit of the Contractor's financial statement and condition.

#### 8.3 ORGANIZATION CONFLICTS OF INTEREST

- A. The Contractor warrants that to the best of its knowledge and belief and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of work under this Contract and the Contractor's organizational, financial, contractual or other interests are such that:
  - 1. Award of the Contract may result in an unfair competitive advantage; or
  - 2. The Contractor's objectivity in performing the Contract work may be impaired.
- B. The Contractor agrees that if after award they discover an organizational conflict of interest with respect to this Contract, they shall make an immediate and full disclosure in writing to the Contracting Officer, which shall include a description of the action, which the Contractor has taken or intends to take to eliminate or neutralize the conflict. The Owner may, however, terminate the Contract if it deems the action to be in the best interest of the Owner.
- C. In the event the Contractor was aware of an organizational conflict of interest before the award of this Contract and intentionally did not disclose the conflict to the Contracting Officer, the Owner may terminate the Contract for default.
- D. The provisions of this Clause shall be included in all subcontracts and consulting agreements wherein the work to be performed is similar to the services provided by the Contractor. The Contractor shall include in such subcontracts and consulting agreements any necessary provisions to eliminate or neutralize conflicts of interest.

#### 8.4 INTERESTS OF MEMBERS OF CONGRESS

A. No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this Contract or to any benefit to arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

# 8.5 INTERESTS OF MEMBERS, OFFICERS, COMMISSIONERS AND EMPLOYEES, OR FORMER MEMBERS, OFFICERS AND EMPLOYEES

A. No member, officer, or employee of the King County Housing Authority, no member of the governing body of the locality in which the project is situated, no member of the governing body in which the Owner was activated, and no other public official or such locality or localities who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this Contract or the proceeds thereof.

# **BID FORM**

# PROJECT NAME AND LOCATION:

Cascadian Apartments Fire Alarm Systems		Contract Number: HW2201531	
BID FORM			
The undersigned, Legal Name of Bidder:			_
prepared by the Owner, hereby proposes to	furnish la sal, new i	ing familiarized him/herself with the contract easurements contained in the project manual a abor, materials and necessary equipment – al installation and the required applicable taxes and	1
BASE BID		(\$	)
(Including sales tax inc	dicated in	Instructions to Bidders) (\$	,
ADDENDA			
Acknowledge receipt of any ad	denda by	inserting the number(s) above	_
	-	eserved by the Owner to reject any and all bids e a valid and firm offer for a period of Sixty (60	
Bidder agrees that Work will be substantially the Contract Documents on or before the date, v		and ready for final payment in accordance with number of calendar days indicated.	1
solicitation date for this Project, the bidder is any provision of chapters 49.46, 49.48, or 49.5	not a "wil 2 RCW, a ent of Lab	three-year period immediately preceding the bid llful" violator, as defined in RCW 49.48.082, on as determined by a final and binding citation and poor and Industries or through a civil judgmen	f d
I certify (or declare) under penalty of perjury units true and correct.	nder the la	aws of the State of Washington that the foregoing	5
Signature of Bidder		Print Your Name	_
Submitted on	day of _	2022	,
City		State	_
City	1	State	

# **BIDDER INFORMATION**

# **BIDDER INFORMATION**

Name of Bidder (Company):			
Address:			
Contact Name:			
Phone Number:	Email	Address:	
Business Type: General Conf	ractor ( ) Other ( ) (Ple	ease specify):	
Bidder is a(n): ☐ Individual	☐ Partnership ☐ Joint V	enture   Incorpor	rated in the state of
List business names & associ	ated UBI # used by Bido	der during the pas	t 5 years if different than above:
Bidder has been in business of	continuously from:		
			. Acct. #:
Bidder has experience in wor	k "Similar in Scope and (	Complexity" com	parable to that required for this Project:
As a prime contractor for	years. A	As a subcontractor	for years.
OWNER(S) OF COMPANY	(List all owners):		SOCIAL SECURITY NUMBER (only sole proprietorship):
No. of regular full-time empl	oyees other than owner(s	s):	
Indicate clearly the kind of w	ork your company will a	ctually perform ir	this project:
Approximate % of work you	company will actually p	perform:	
List the supervisory personne	el to be employed by the l	Bidder and availal	ble for, and intended to, work on this project:
<u>Name</u>	<u>Title</u>		How Long With Bidder

# **BIDDER INFORMATION**

#### **SUBCONTRACTORS**

Do you intend to use Subcontractor(s) in this project? Yes  $\square$  No  $\square$  (If yes, you <u>must</u> show the name of the subcontractors. Attach additional pages as necessary.)

Subcontractors Name	Subcontractor's UI	BI#	Pho	ne Number	Trade		Years in Business
1.							Dusmess
2.							
3.							
4.							
5.							
BIDDER'S EXPERIENCE Projects successfully supervise bid documents in the last 5 yea					ar scope and valu	ie as	specified in
Name of Project	Completion Date	Duration (Months	n	Nature of Work			nount of
1.			,				
2.							
3.							
4.							
5.							
Owner's Name (of project listed above)	Project Address			Contact Person			one imber
1.							
2.							
3.							
4.							
5.							
Has Bidder ever been found gu If yes, give details & attach add						S	
Has Bidder ever filed for protect □ No □ Yes If yes, give deta							

# **BIDDER INFORMATION**

years? (i.e., open claims, lawsuits	s, warrants, judgements including but	been rendered against Bidder in the past five not limited to those that would show on the ages as necessary:
		State Worker's Compensation or other rement in the past 5 years? ☐ No ☐ Yes
<u>Date</u>	Type of Injury	Agency Receiving Claim
Bidders current Experience Modi	fication Rate (EMR):	
(If Bidder is self-insured, attach	proof of EMR stated, showing comp	lete worksheet calculations)
The bidder hereby certifies that current.	the information contained in this B	idder's Information is accurate, complete and
	NAME:	
(signature)		(print)
TITI F.	DATE	

# **CONTRACT FORM**

This Contract is entered into by and between the King County Housing Authority, hereinafter referred to as the "Owner" whose principal office is located at 600 Andover Park West, Seattle, WA 98188 and [Name of Contractor], referred to as the "Contractor", whose principal office is located at [Contractor's Address].

IN CONSIDERATION OF the mutual benefits and conditions hereinafter contained, the parties hereto agree as follows:

- 1.1 Contract Documents
  - A. The provisions set forth in the Contract Documents are hereby incorporated into and made part of the Contract. Contractor acknowledges receipt and review of all Contract Documents applicable to performance of the work. The Contract shall consist of the following component parts:
    - 1. This Instrument
    - 2. Addenda
    - 3. Specifications
    - 4. Plans
    - 5. Bid Form
    - 6. Pre-Bid Agenda
    - 7. General Conditions
    - 8. Instructions to Bidders
    - 9. Prevailing Wage Rates
    - 10. Performance and Payment Bonds
    - 11. Hazardous Material Report
- 1.2 Scope of Services to be Performed by the Contractor: The Contractor shall provide all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete the work in accordance with the Contract Documents for:

Project: Cascadian Fire Alarm Systems Contract No.: HW2201531

- Compensation: The total amount of the Contract shall be [\$\$\$] dollars and  $[\phi\phi]$  cents (\$[\$\$\$.\$\$]) subject to additions and deductions provided therein.
- Duration of Contract: The Contractor shall commence work after receipt of Notice to Proceed, follow the schedule specified in the contract documents, and all work must be completed within ninety (90) consecutive calendar days from the date of the Notice to Proceed unless sooner terminated pursuant to the General Conditions. Upon expiration of the original Contract term, the Contract, at the Owner's sole discretion, may be extended for a period determined by the Owner.
- 1.5 Liquidated Damages: Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. If Completion of the Work does not occur within the Contract Time, the Contractor agrees that Liquidated Damages in the amount of \$250 per day will be assessed for each calendar day that the Contractor exceeds the time for completion.

The individuals signing this Contract warrant and represent for themselves and for their respective organizations that they are duly authorized to sign this Contract and that upon such signing their respective organizations are bound thereby.

DATED this day of	
Contractor	Owner
President/Owner	Dan Watson
	Interim Executive Director
	KING COUNTY HOUSING AUTHORITY

	<b>CERTIFICATE</b>	OF INSUR	NCE					(MM/DD/YY)
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Ven	dor Name		COMPANY	GH	I Insurance Con	nnan	v	
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City	y, State, Zip		COMPANY					
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	A							1,000,000
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	OWNER'S & CONTRACTOR'S PROT						OCCURRENCE	1,000,000
						FIRE I	DAMAGE (Any one fire)	50,000
						MED E	EXP (Any one person)	5,000
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DESC	RIPTION OF OPERATIONS/LOCATIONS/V	EHICLES/SPECIAL ITEMS						
	g County Housing Authority a							
abo	ve general liability and auto co	overage. Re: Contr	act HW220	1531	at Cascadian A	partn	nents, 15517 N	E 12th St,
Bell	evue, WA 98007.							
	TIFICATE HOLDER		CANCI					
	g County Housing Authority				OF THE ABOVE DESCRI DATE THEREOF, THE ISS			
	ed Residential Services				RITTEN NOTICE TO THE			
	Andover Park West				TO MAIL SUCH NOTICE			
Sea	ttle, WA 98188-3326				ANY KIND UPON THE C	OMPA	NY, ITS AGENTS OR R	EPRESENTATIVES.
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			Signature	of Insur	ed's Agent			
ACO	RD 25-S (3/93)						ACORD COI	RPORATION 1993

# **PROVIDE**

# GENERAL LIABILITY ENDORSEMENT

and

# AUTO LIABILITY ENDORSEMENT



# **Limited Good Faith Asbestos Inspection**

"Cascadian Apartments" 15517 NE 12<sup>th</sup> Street, Bellevue, WA 98007



Prepared For Mr. Hugh Watkinson King County Housing Authority 600 Andover Park W, Seattle, WA 98188

Project Number
Inspection Date
Report Date
Inspected By
AHERA Certification
Expiration Date

2016-1117 January 9 & 10, 2017 January 13, 2017 Derrick Gallard

159360 / 160154

October 19, 2017 / December 7, 2017

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"Cascadian Apartments" 15517 NE 12th Street, Bellevue, WA 98007 Project Number: 2016-1117

#### 1.0 SCOPE OF WORK

A Limited Good Faith Asbestos Inspection was conducted at the Cascadian Apartments located at 15517 NE 12th Street, Bellevue, WA 98007 on January 9 & 10, 2017.

Derrick Gallard, an AHERA Certified Building Inspector, conducted this inspection at the request of Mr. Hugh Watkinson of King County Housing Authority.

The purpose of this inspection was to identify all suspect asbestos-containing building materials which would be impacted by the planned renovations. As per the client (Hugh Watkinson) onsite, these renovations include plumbing and fixture upgrades in four buildings that will disturb wall/ceiling systems. Due to occupancy, destructive sampling methods were not utilized to collect samples of suspect building materials. No soft/limited demolition was performed during this inspection. Please note that hidden materials may exist within the structures, and all suspect materials must be treated as asbestos containing until testing proves otherwise.

This survey constitutes a survey of accessible suspect ACM in the project area and was conducted in accordance with:

The National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulations (CFR) Part 61, Subpart M requires a survey by an accredited asbestos inspector prior to demolition of a structure.

This asbestos survey also satisfies the requirements for "Good Faith" inspection outlined in Washington Administrative Code (WAC) 296-62-07221(2), *Identification*, which requires the owner of a structure to provide contractors with a written report identifying the asbestos-containing materials expected to be disturbed during renovation or demolition.

The asbestos survey section is written to comply with the AHERA asbestos sampling procedure as stated in 40 CFR 763.86. This protocol is required under the Puget Sound Clean Air Agency (PSCAA Regulation III, Article IV, rev. March 26, 2009) for all asbestos surveys prior to a building demolition.

A site plan indicating locations of samples collected by NVL personnel has been included in **Appendix A**.

#### 2.0 SURVEY METHOD

#### **Asbestos Survey Method**

The NVL Labs field inspector is an Asbestos Building Inspector, certified under the requirements of the United States Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) regulation 40 CFR 763, Subpart E. A copy of his certificate is provided in Appendix C.

The AHERA Guidelines dictate the following:

The inspector must determine *homogenous areas*, which are defined as an area of Thermal System Insulation, Surfacing Material, or Miscellaneous Material that is uniform in texture and color.

Once homogenous areas have been determined, the inspector must determine whether or not material is friable or non-friable. *Friable* is defined as a material, that when dry, can be crushed, pulverized, or reduced to dust using hand pressure, and *non-friable* material is defined as a material, that when dry, *cannot* be crushed pulverized or reduced to dust using hand pressure. Materials normally defined as non-friable can become friable by definition if sufficiently damaged.

Once friability has been determined, the materials suspected of containing asbestos are divided into one of three categories: Thermal System Insulation (TSI), Surfacing Material (SM), or Miscellaneous Material (MM). Generally speaking, TSI and SM are considered to be friable, with the exception of TSI where the structural integrity of the insulation is intact and the protective out wrap is undamaged.

Once materials are divided into one of the categories, samples are collected in the following manner:

Friable Thermal System Insulation:

- 1. Inspector shall collect three (3) randomly distributed samples;
- 2. Inspector shall collect a minimum of one sample of each TSI materials that appears to have been used as a patch, as long as the patch is less than six linear feet or six square feet;
- 3. Inspector shall collect in a manner sufficient, samples from areas of TSI applied to fittings, tees, and joints.

#### Friable Surfacing Material:

- 1. Inspector shall collect samples in random manner of surfacing materials as follows:
  - a. Collect three bulk samples from an area believed to be homogeneous (defined as a material that appears to be the same or similar and was installed at the same time) that is 1,000 square feet or less in size;
  - b. Collect five bulk samples from an area believed to be homogeneous that is greater than 1,000 square feet in size, but less than 5,000 square feet in size;
  - c. Collect seven bulk samples from an area believed to be homogeneous that is greater than 5,000 square feet.

# 2.0 SURVEY METHOD (continued)

#### Miscellaneous Materials:

1. Inspector shall collect samples in a manner and number sufficient to determine if the material is asbestos-containing or not.

#### All Materials Determined to Be Non Friable:

1. Inspector shall collect samples in a manner and number sufficient to determine if the material is asbestos containing or not.

In addition to these sampling requirements, the AHERA Building Inspector is required to assess the following of each material that is found to be positive for asbestos:

- 1. The condition of each material;
- 2. Accessibility;
- 3. Possibility for air erosion.

Once the samples have been collected, they must be analyzed by an accredited laboratory, and they must be analyzed using polarized light microscopy methods, commonly referred to as EPA Method 600/R-93/116.

NVL Labs collected samples and obtained analytical data for suspect asbestos-containing materials identified in the building. Once collected, each bulk sample was sealed in an unadulterated plastic bag to eliminate the possibility of cross-contamination. "Chain-of-Custody" tracking was followed to maintain sample integrity during handling and data reporting at NVL Labs.

A walk-through inspection of all accessible areas of this structure was performed to identify potential asbestos-containing materials. The walk-through inspection included a review of the internal and external aspects of this structure. The locations and types of potential asbestos-containing materials were noted.

#### **Homogeneous Materials**

Homogeneous materials are defined as an area of asbestos-containing material or presumed asbestos-containing material which appears similar throughout in terms of color, texture, and date of material application. The report listing for homogeneous materials will appear as follows:

Sample Number	Material Description by Layer	Location	Asbestos	Quantity	Friable
#	Layer 1 is not asbestos-containing  Layer 2 is asbestos-containing	Location description	1. % 2. %	"X" LF/ft²	Yes/No

#### 3.0 LABORATORY INFORMATION

**Laboratory Analysis: Asbestos** 

In accordance with 40 CFR Chapter 1 (1-1-87 edition) Part 763, Subpart F, Appendix A, asbestos samples are analyzed at NVL Labs using polarized light microscopy (PLM) with dispersion staining. If samples are not homogeneous, then sub-samples of the components are analyzed separately. All bulk samples are analyzed using EPA Method 600/R-93/116 with the following measurement uncertainties for reported % asbestos: 1%=0-3%, 5%≥1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%. Only materials containing more than 1% total asbestos were classified as "asbestos-containing" based on EPA, state, and local regulations.

Findings for samples containing more than one separable layer of materials are reported for each layer. The asbestos concentration in the sample is determined by visual estimation.

NVL Labs is accredited by the National Institute of Standards and Technology (NIST) under the National Volunteer Laboratory Accreditation Program (NVLAP) program for bulk asbestos fiber analysis; NVLAP Lab Code 102063-0

#### Laboratory Accreditation

Professional accreditations for NVL Laboratories, Inc. include the following:

NVL Laboratories, Inc. is currently accredited by the National Institute of Standards and Technology (NIST) under the National Volunteer Laboratory Accreditation Program (NVLAP) program for bulk asbestos fiber analysis.

NVLAP Lab Code 102063-0

NVL Laboratories, Inc. is approved by the American Industrial Hygiene Association (AIHA) Asbestos Analysts Registry (AAR) program for airborne asbestos fiber analysis.

AAR Counter ID 7412

NVL Laboratories, Inc. is currently accredited by the American Industrial Hygiene Association (AIHA) under the Industrial Hygiene Laboratory Accreditation Program (IHLAP). The IHLAP program is designed specifically for laboratories involved in analyzing samples to evaluate workplace exposure.

IHLAP Certification Number 563

# 4.0 BUILDING DESCRIPTION

General Building Type	The area being disturbed consists of four multi-level apartment buildings of traditional wood framed construction.
Primary External Components	The exterior of the structures were not part of the surveyed area.
Foundation Type	The foundation of the buildings was not part of the surveyed area.
Roofing Material(s)	The roofs of the buildings were not part of the surveyed area.
Window Type(s)	The windows were not part of the surveyed area.
Flooring	The flooring was not part of the surveyed area.
Thermal Systems With Insulation	The thermal system was not part of the surveyed area.
Finishing	The buildings are finished with textured drywall and popcorn ceiling texture.

#### 5.0 FINDINGS

#### Building K, Floor 1 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-K1-1-1	Popcorn ceiling texture	Building K, floor 1, hallway, ceiling	5%		
2016-1117-K1-1-2	Not analyzed	Building K, floor 1, hallway, ceiling	Not analyzed		
2016-1117-K1-1-3	Not analyzed	Building K, floor 1, hallway, ceiling	Not analyzed		
2016-1117-K1-1-4	Not analyzed	Building K, floor 1, unit 123, living room, ceiling	Not analyzed	3845 ft²	Yes
2016-1117-K1-1-5	Not analyzed	Building K, floor 1, unit 124, bedroom, ceiling	Not analyzed		
2016-1117-K1-1-6	Not analyzed	Building K, floor 1, unit 125, foyer, ceiling	Not analyzed		
2016-1117-K1-1-7	Not analyzed	Building K, floor 1, unit 126, kitchen, ceiling	Not analyzed		

## Building K, Floor 1 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-K1-2-1	1: Wall texture 2: Drywall	Building K, floor 1, hallway, mid-wall	1: 5% 2: ND		
2016-1117-K1-2-2	Not analyzed	Building K, floor 1, South stairway, mid-wall	Not analyzed		
2016-1117-K1-2-3	Not analyzed	Building K, floor 1, North stairway, mid-wall	Not analyzed		
2016-1117-K1-2-4	Not analyzed	Building K, floor 1, unit 123, bedroom, mid-wall	Not analyzed	9865 ft²	Yes
2016-1117-K1-2-5	Not analyzed	Building K, floor 1, unit 124, kitchen, mid-wall	Not analyzed		
2016-1117-K1-2-6	Not analyzed	Building K, floor 1, unit 125, bathroom, mid-wall	Not analyzed		
2016-1117-K1-2-7	Not analyzed	Building K, floor 1, unit 126, hall, mid-wall	Not analyzed		

#### ND None Detected

- \* The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.
- \*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

# 5.0 FINDINGS (continued)

# Building K, Floor 2 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-K2-1-8	Popcorn ceiling texture	Building K, floor 2, hallway, ceiling	6%		
2016-1117-K2-1-9	Not analyzed	Building K, floor 2, laundry room, ceiling	Not analyzed		
2016-1117-K2-1-10	Not analyzed	Building K, floor 2, hallway, ceiling	Not analyzed		
2016-1117-K2-1-11	Not analyzed	Building K, floor 2, unit 226, living room, ceiling	Not analyzed	3945 ft²	Yes
2016-1117-K2-1-12	Not analyzed	Building K, floor 2, unit 225, bedroom, ceiling	Not analyzed		
2016-1117-K2-1-13	Not analyzed	Building K, floor 2, unit 224, hall, ceiling	Not analyzed		
2016-1117-K2-1-14	Not analyzed	Building K, floor 2, unit 223, living room, ceiling	Not analyzed		

# Building K, Floor 2 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*	
2016-1117-K2-2-8	1: Wall texture 2: Drywall	Building K, floor 2, laundry room, mid-wall	<b>1: 2%</b> 2: ND	9865 ft²	Yes	
2016-1117-K2-2-9	Not analyzed	Building K, floor 2, hallway, mid- wall	Not analyzed			
2016-1117-K2-2-10	Not analyzed	Building K, floor 2, South stairway, mid-wall	Not analyzed			
2016-1117-K2-2-11	Not analyzed	Building K, floor 2, unit 226, bathroom, mid-wall	Not analyzed			
2016-1117-K2-2-12	Not analyzed	Building K, floor 2, unit 225, kitchen, mid-wall	Not analyzed			
2016-1117-K2-2-13	Not analyzed	Building K, floor 2, unit 224, bathroom, mid-wall	Not analyzed			
2016-1117-K2-2-14	Not analyzed	Building K, floor 2, unit 223, bathroom, mid-wall	Not analyzed			

#### ND None Detected

- The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.
- \*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

# 5.0 FINDINGS (continued)

#### Building K, Floor 3 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-K3-1-15	Popcorn ceiling texture	Building K, floor 3, unit 323, living room, ceiling	5%	3845 ft²	Yes
2016-1117-K3-1-16	Not analyzed	Building K, floor 3, unit 324, bedroom, ceiling	Not analyzed		
2016-1117-K3-1-17	Not analyzed	Building K, floor 3, unit 325, living room, ceiling	Not analyzed		
2016-1117-K3-1-18	Not analyzed	Building K, floor 3, unit 326, bedroom, ceiling	Not analyzed		
2016-1117-K3-1-19	Not analyzed	Building K, floor 3, North stairway, ceiling	Not analyzed		
2016-1117-K3-1-20	Not analyzed	Building K, floor 3, hallway, ceiling	Not analyzed		
2016-1117-K3-1-21	Not analyzed	Building K, floor 3, hallway, ceiling	Not analyzed		

#### Building K, Floor 3 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*	
2016-1117-K3-2-15	Drywall	Building K, floor 3, unit 333, bedroom, mid-wall	ND	9865 ft²	Yes	
2016-1117-K3-2-16	1: Wall texture 2: Drywall	Building K, floor 3, unit 324, bathroom, mid-wall	<b>1: 2%</b> 2: ND			
2016-1117-K3-2-17	Not analyzed	Building K, floor 3, unit 325, bathroom, mid-wall	Not analyzed			
2016-1117-K3-2-18	Not analyzed	Building K, floor 3, unit 326, foyer, mid-wall	Not analyzed			
2016-1117-K3-2-19	Not analyzed	Building K, floor 3, South stairway, mid-wall	Not analyzed			
2016-1117-K3-2-20	Not analyzed	Building K, floor 3, hallway, mid- wall	Not analyzed			
2016-1117-K3-2-21	Not analyzed	Building K, floor 3, hallway, mid- wall	Not analyzed			

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

# 5.0 FINDINGS (continued)

#### Building H, Floor 1 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H1-1-1	Popcorn ceiling texture	Building H, floor 1, unit 122, living room, ceiling	5%	5880 ft²	Yes
2016-1117-H1-1-2	Not analyzed	Building H, floor 1, unit 121, living room, ceiling	Not analyzed		
2016-1117-H1-1-3	Not analyzed	Building H, floor 1, hallway, ceiling	Not analyzed		
2016-1117-H1-1-4	Not analyzed	Building H, floor 1, unit 120, living room, ceiling	Not analyzed		
2016-1117-H1-1-5	Not analyzed	Building H, floor 1, unit 119, living room, ceiling	Not analyzed		
2016-1117-H1-1-6	Not analyzed	Building H, floor 1, unit 118, kitchen, ceiling	Not analyzed		
2016-1117-H1-1-7	Not analyzed	Building H, floor 1, unit 117, hall, ceiling	Not analyzed		

## Building H, Floor 1 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H1-2-1	Drywall with paint	Building H, floor 1, unit 122, bathroom, mid-wall	ND	14950 ft²	Yes
2016-1117-H1-2-2	Drywall with layered paint	Building H, floor 1, unit 121, foyer, mid-wall	ND		
2016-1117-H1-2-3	1: Wall texture	Building H, floor 1, storage room, mid-wall	1: 3%		
	2: Drywall		2: ND		
2016-1117-H1-2-4	Not analyzed	Building H, floor 1, unit 120, bathroom, mid-wall	Not analyzed		
2016-1117-H1-2-5	Not analyzed	Building H, floor 1, unit 119, foyer, mid-wall	Not analyzed		
2016-1117-H1-2-6	Not analyzed	Building H, floor 1, unit 118, foyer, mid-wall	Not analyzed		
2016-1117-H1-2-7	Not analyzed	Building H, floor 1, unit 117, bathroom, mid-wall	Not analyzed		

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

<sup>\*\*</sup> These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building H, Floor 2 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H2-1-8	Popcorn ceiling texture	Building H, floor 2, unit 217, bedroom 1, ceiling	4%		Yes
2016-1117-H2-1-9	Not analyzed	Building H, floor 2, unit 218, foyer, ceiling	Not analyzed		
2016-1117-H2-1-10	Not analyzed	Building H, floor 2, unit 219, living room, ceiling	Not analyzed		
2016-1117-H2-1-11	Not analyzed	Building H, floor 2, unit 220, bedroom, ceiling	Not analyzed	5980 ft²	
2016-1117-H2-1-12	Not analyzed	Building H, floor 2, unit 221, bedroom, ceiling	Not analyzed		
2016-1117-H2-1-13	Not analyzed	Building H, floor 2, unit 222, living room, ceiling	Not analyzed		
2016-1117-H2-1-14	Not analyzed	Building H, floor 2, laundry room, ceiling	Not analyzed		

# Building H, Floor 2 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H2-2-8	1: Wall texture 2: Drywall	Building H, floor 2, unit 217, foyer, mid-wall	1: 2% 2: ND		Yes
2016-1117-H2-2-9	Not analyzed	Building H, floor 2, unit 218, bathroom, mid-wall	Not analyzed		
2016-1117-H2-2-10	Not analyzed	Building H, floor 2, unit 219, foyer, mid-wall	Not analyzed		
2016-1117-H2-2-11	Not analyzed	Building H, floor 2, unit 220, bathroom, mid-wall	Not analyzed	14950 ft²	
2016-1117-H2-2-12	Not analyzed	Building H, floor 2, unit 221, foyer, mid-wall	Not analyzed		
2016-1117-H2-2-13	Not analyzed	Building H, floor 2, unit 222, bathroom, mid-wall	Not analyzed		
2016-1117-H2-2-14	Not analyzed	Building H, floor 2, hallway, mid-wall	Not analyzed		

#### ND None Detected

- \* The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.
- \*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building H, Floor 3 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H3-1-15	Popcorn ceiling texture	Building H, floor 3, unit 322, bedroom 2, ceiling	ND		
2016-1117-H3-1-16	Popcorn ceiling texture	Building H, floor 3, unit 321, living room, ceiling	ND		
2016-1117-H3-1-17	Popcorn ceiling texture	Building H, floor 3, unit 320, bedroom, ceiling	ND		
2016-1117-H3-1-18	Popcorn ceiling texture	Building H, floor 3, unit 319, living room, ceiling	ND		
2016-1117-H3-1-19	Popcorn ceiling texture	Building H, floor 3, unit 318, hall, ceiling	ND		
2016-1117-H3-1-20	Popcorn ceiling texture	Building H, floor 3, unit 317, bedroom 2, ceiling	ND		
2016-1117-H3-1-21	Popcorn ceiling texture	Building H, floor 3, South stairway, ceiling	ND		

ND

None Detected

#### Building H, Floor 3 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-H3-2-15	1: Wali texture 2: Drywali	Building H, floor 3, unit 322, foyer, mid-wall	1: ND 2: ND		Yes
2016-1117-H3-2-16	1: Wall texture 2: Drywall	Building H, floor 3, unit 321, bathroom, mid-wall	1: ND 2: ND		
2016-1117-H3-2-17	Drywall with layered paint	Building H, floor 3, unit 320, bathroom, mid-wall	ND		
2016-1117-H3-2-18	Drywall with layered paint	Building H, floor 3, unit 319, foyer, mid-wall	ND	14950 ft²	
2016-1117-H3-2-19	1: Wall texture 2: Drywall	Building H, floor 3, unit 318, bathroom 1, mid-wall	1: ND 2: ND		
2016-1117-H3-2-20	1: Wall texture 2: Drywall	Building H, floor 3, unit 320, bathroom, mid-wall	1: 2% 2: ND	-	
2016-1117-H3-2-21	Not analyzed	Building H, floor 3, hallway, mid-wall	Not analyzed		

ND None Detected

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The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

# Building P, Floor 1 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P1-1-1	Popcorn ceiling texture	Building P, floor 1, unit 131, kitchen, ceiling	3%		Yes
2016-1117-P1-1-2	Not analyzed	Building P, floor 1, unit 132, bedroom 1, ceiling	Not analyzed		
2016-1117-P1-1-3	Not analyzed	Building P, floor 1, unit 133, living room, ceiling	Not analyzed		
2016-1117-P1-1-4	Not analyzed	Building P, floor 1, unit 134, bedroom 2, ceiling	Not analyzed	5880 ft²	
2016-1117-P1-1-5	Not analyzed	Building P, floor 1, unit 135, bedroom 2, ceiling	Not analyzed		
2016-1117-P1-1-6	Not analyzed	Building P, floor 1, unit 136, kitchen, ceiling	Not analyzed		
2016-1117-P1-1-7	Not analyzed	Building P, floor 1, hallway, ceiling	Not analyzed		

#### Building P, Floor 1 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P1-2-1	1: Wall texture 2: Drywall	Building P, floor 1, unit 131, foyer, mid-wall	1: 2% 2: ND		Yes
2016-1117-P1-2-2	Not analyzed	Building P, floor 1, unit 132, bathroom 1, mid-wall	Not analyzed		
2016-1117-P1-2-3	Not analyzed	Building P, floor 1, unit 133, foyer, mid-wall	Not analyzed		
2016-1117-P1-2-4	Not analyzed	Building P, floor 1, unit 134, kitchen, mid-wall	Not analyzed	14950 ft²	
2016-1117-P1-2-5	Not analyzed	Building P, floor 1, unit 135, bathroom 1, mid-wall	Not analyzed		
2016-1117-P1-2-6	Not analyzed	Building P, floor 1, unit 136, foyer, mid-wall	Not analyzed		
2016-1117-P1-2-7	Not analyzed	Building P, floor 1, hallway, mid- wall	Not analyzed		

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

<sup>\*\*</sup> These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building P, Floor 2 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P2-1-8	Popcorn ceiling texture	Building P, floor 2, unit 236, hall, ceiling	3%		Yes
2016-1117-P2-1-9	Not analyzed	Building P, floor 2, unit 235, kitchen, ceiling	Not analyzed	:	
2016-1117-P2-1-10	Not analyzed	Building P, floor 2, unit 234, bedroom, ceiling	Not analyzed		
2016-1117-P2-1-11	Not analyzed	Building P, floor 2, unit 233, bedroom, ceiling	Not analyzed	5980 ft²	
2016-1117-P2-1-12	Not analyzed	Building P, floor 2, unit 232, living room, ceiling	Not analyzed		
2016-1117-P2-1-13	Not analyzed	Building P, floor 2, unit 231, kitchen, ceiling	Not analyzed		
2016-1117-P2-1-14	Not analyzed	Building P, floor 2, hallway, ceiling	Not analyzed		

### Building P, Floor 2 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P2-2-8	1: Wall texture 2: Drywall	Building P, floor 2, unit 236, foyer, mid-wall	1: 2% 2: ND		Yes
2016-1117-P2-2-9	Not analyzed	Building P, floor 2, unit 235, bedroom 1, mid-wall	Not analyzed		
2016-1117-P2-2-10	Not analyzed	Building P, floor 2, unit 234, hall, mid-wall	Not analyzed		
2016-1117-P2-2-11	Not analyzed	Building P, floor 2, unit 233, bathroom, mid-wall	Not analyzed	14950 ft²	
2016-1117-P2-2-12	Not analyzed	Building P, floor 2, unit 232, hall, mid-wall	Not analyzed		
2016-1117-P2-2-13	Not analyzed	Building P, floor 2, unit 231, foyer, mid-wall	Not analyzed		
2016-1117-P2-2-14	Not analyzed	Building P, floor 2, North stairway, mid-wall	Not analyzed		

#### ND None Detected

- \* The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.
- \*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building P, Floor 3 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P3-1-15	Popcorn ceiling texture	Building P, floor 3, unit 331, bedroom 1, ceiling	3%		Yes
2016-1117-P3-1-16	Not analyzed	Building P, floor 3, unit 332, kitchen, ceiling	Not analyzed		
2016-1117-P3-1-17	Not analyzed	Building P, floor 3, unit 333, living room, ceiling	Not analyzed		
2016-1117-P3-1-18	Not analyzed	Building P, floor 3, unit 334, bedroom 1, ceiling	Not analyzed	5880 ft²	
2016-1117-P3-1-19	Not analyzed	Building P, floor 3, unit 335, hall, ceiling	Not analyzed		
2016-1117-P3-1-20	Not analyzed	Building P, floor 3, unit 336, bedroom 2, ceiling	Not analyzed		
2016-1117-P3-1-21	Not analyzed	Building P, floor 3, hallway, ceiling	Not analyzed		

## Building P, Floor 3 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-P3-2-15	1: Wall texture 2: Drywall	Building P, floor 3, unit 331, kitchen, mid-wall	1: 2% 2: ND		Yes
2016-1117-P3-2-16	Not analyzed	Building P, floor 3, unit 332, foyer, mid-wall	Not analyzed		
2016-1117-P3-2-17	Not analyzed	Building P, floor 3, unit 333, kitchen, mid-wall	Not analyzed		
2016-1117-P3-2-18	Not analyzed	Building P, floor 3, unit 334, bathroom, mid-wall	Not analyzed	14950 ft²	
2016-1117-P3-2-19	Not analyzed	Building P, floor 3, unit 335, bathroom, mid-wall	Not analyzed		
2016-1117-P3-2-20	Not analyzed	Building P, floor 3, unit 336, foyer, mid-wall	Not analyzed		
2016-1117-P3-2-21	Not analyzed	Building P, floor 3, hallway, mid- wall	Not analyzed		

ND None Detected

\* The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

\*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building M, Floor 1 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-M1-1-1	Popcorn ceiling texture	Building M, floor 1, hallway, ceiling	5%	-	Yes
2016-1117-M1-1-2	Not analyzed	Building M, floor 1, hallway, ceiling	Not analyzed		
2016-1117-M1-1-3	Not analyzed	Building M, floor 1, hallway, ceiling	Not analyzed		
2016-1117-M1-1-4	Not analyzed	Building M, floor 1, unit 130, hall, ceiling	Not analyzed	3845 ft²	
2016-1117- <b>M</b> 1-1-5	Not analyzed	Building M, floor 1, unit 129, living room, ceiling	Not analyzed		
2016-1117-M1-1-6	Not analyzed	Building M, floor 1, unit 128, living room, ceiling	Not analyzed		
2016-1117-M1-1-7	Not analyzed	Building M, floor 1, unit 127, foyer, ceiling	Not analyzed		

## Building M, Floor 1 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-M1-2-1	1: Wall texture 2: Drywall	Building M, floor 1, hallway, mid-wall	1: 2% 2: ND		Yes
2016-1117-M1-2-2	Not analyzed	Building M, floor 1, hallway, mid-wall	Not analyzed		
2016-1117-M1-2-3	Not analyzed	Building M, floor 1, South stairway, mid-wall	Not analyzed		
2016-1117- <b>M</b> 1-2-4	Not analyzed	Building M, floor 1, unit 130, foyer, mid-wall	Not analyzed	9865 ft²	
2016-1117-M1-2-5	Not analyzed	Building M, floor 1, unit 129, bedroom, mid-wall	Not analyzed		
2016-1117-M1-2-6	Not analyzed	Building M, floor 1, unit 128, foyer, mid-wall	Not analyzed		
2016-1117-M1-2-7	Not analyzed	Building M, floor 1, unit 127, bedroom 2, mid-wall	Not analyzed		

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

\*\* These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building M, Floor 2 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-M2-1-8	Popcorn ceiling texture	Building M, floor 2, hallway, ceiling	5%		
2016-1117-M2-1-9	Not analyzed	Building M, floor 2, laundry room, ceiling	Not analyzed		
2016-1117-M2-1-10	Not analyzed	Building M, floor 2, hallway, ceiling	Not analyzed		
2016-1117-M2-1-11	Not analyzed	Building M, floor 2, unit 227, bedroom 1, ceiling	Not analyzed	3945 ft²	Yes
2016-1117-M2-1-12	Not analyzed	Building M, floor 2, unit 228, bedroom, ceiling	Not analyzed		
2016-1117-M2-1-13	Not analyzed	Building M, floor 2, unit 229, living room, ceiling	Not analyzed		
2016-1117-M2-1-14	Not analyzed	Building M, floor 2, unit 230, living room, ceiling	Not analyzed		

## Building M, Floor 2 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117- <b>M</b> 2-2-8	1: Wall texture 2: Drywall	Building M, floor 2, North stairway, mid-wall	1: <b>2</b> % 2: ND		
2016-1117-M2-2-9	Not analyzed	Building M, floor 2, Laundry room, mid-wall	Not analyzed		
2016-1117-M2-2-10	Not analyzed	Building M, floor 2, hallway, mid-wall	Not analyzed		
2016-1117-M2-2-11	Not analyzed	Building M, floor 2, unit 227, bathroom 1, mid-wall	Not analyzed	9865 ft²	Yes
2016-1117-M2-2-12	Not analyzed	Building M, floor 2, unit 228, bathroom, mid-wall	Not analyzed		
2016-1117-M2-2-13	Not analyzed	Building M, floor 2, unit 229, kitchen, mid-wall	Not analyzed		
2016-1117-M2-2-14	Not analyzed	Building M, floor 2, unit 230, foyer, mid-wall	Not analyzed		

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

<sup>\*\*</sup> These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

## Building M, Floor 3 (Ceiling)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117- <b>M</b> 3-1-15	Popcorn ceiling texture	Building M, floor 3, North stairway, ceiling	6%		
2016-1117-M3-1-16	Not analyzed	Building M, floor 3, hallway, ceiling	Not analyzed		
2016-1117-M3-1-17	Not analyzed	Building M, floor 3, hallway, ceiling	Not analyzed		
2016-1117 <b>-M</b> 3-1-18	Not analyzed	Building M, floor 3, unit 330, bedroom 1, ceiling	Not analyzed	3845 ft²	Yes
2016-1117-M3-1-19	Not analyzed	Building M, floor 3, unit 329, hall, ceiling	Not analyzed		
2016-1117-M3-1-20	Not analyzed	Building M, floor 3, unit 328, bedroom, ceiling	Not analyzed		
2016-1117-M3-1-21	Not analyzed	Building M, floor 3, unit 327, bedroom 1, ceiling	Not analyzed		

# Building M, Floor 3 (Wall)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity**	Friable*
2016-1117-M3-2-15	1: Wall texture 2: Drywall	Building M, floor 3, North stairway, mid-wall	1: 3% 2: ND		
2016-1117-M3-2-16	Not analyzed	Building M, floor 3, hallway, mid-wall	Not analyzed		
2016-1117-M3-2-17	Not analyzed	Building M, floor 3, South stairway, mid-wall an			
2016-1117-M3-2-18	Not analyzed	Building M, floor 3, unit 330, bathroom 1, mid-wall	Not analyzed	9865 ft²	Yes
2016-1117 <b>-M</b> 3-2-19	Not analyzed	Building M, floor 3, unit 329, bathroom, mid-wall	Not analyzed		
2016-1117-M3-2-20	Not analyzed	Building M, floor 3, unit 328, kitchen, mid-wall	Not analyzed		
2016-1117-M3-2-21	Not analyzed	Building M, floor 3, unit 327, bathroom 2, mid-wall	Not analyzed		

ND None Detected

The friability of this material was determined at the time of this inspection. Subsequent activities such as demolition, renovation, or abatement may affect the friability of this material.

<sup>\*\*</sup> These quantities are only an estimate of the asbestos containing material discovered on site. Accuracy of these estimates must be verified by the asbestos abatement contractor on site.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

The following is an inventory of asbestos-containing building materials identified during the Limited Good Faith Asbestos Inspection at the Cascadian Apartments, located at 15517 NE 12th Street, Bellevue, WA 98007.

#### Building K

1. Popcorn ceiling texture (Friable)
Sample numbers: 2016-1117-K1-1-1 to K3-1-21



There is approximately 11,635 square feet of asbestos containing popcorn ceiling texture located on all floors/units of building K.

2. Drywall texture (Friable)
Sample numbers: 2016-1117-K1-2-1 to K3-2-21



There is approximately 29,595 square feet of asbestos containing drywall texture located on the walls of all the floors/units of building K.

## Building H

3. Popcorn ceiling texture (Friable)
Sample numbers: 2016-1117-H1-1-1 to H2-1-14



There is approximately 11,860 square feet of asbestos containing popcorn ceiling texture located on the first and second floor of building H

The popcorn ceiling on the third floor of building H however is non-asbestos containing.

# **6.0 CONCLUSIONS AND RECOMMENDATIONS (continued)**

**4.** Drywall texture (Friable)
Sample numbers: 2016-1117-H1-2-1 to H3-2-21

There is approximately 44,100 square feet of asbestos containing drywall texture located on all the floors of building H.



### Building P

5. Popcorn ceiling texture (Friable)
Sample numbers: 2016-1117-P1-1-1 to P3-1-21



There is approximately 17,740 square feet of asbestos containing popcorn ceiling texture on all the floors of building P.

6. Drywall texture (Friable)
Sample numbers: 2016-1117-P1-2-1 to P3-2-21



There is approximately 44,850 square feet of asbestos containing drywall texture on all the floors of building P.

# 6.0 CONCLUSIONS AND RECOMMENDATIONS (continued)

#### Building M

7. Popcorn ceiling texture (Friable)
Sample numbers: 2016-1117-M1-1-1 to M3-1-21



There is approximately 11,635 square feet of asbestos containing popcorn ceiling texture on the all the floors of building M.

8. Drywall texture (Friable)
Sample numbers: 2016-1117-M1-2-1 to M3-2-7



There is approximately 29,595 square feet of asbestos containing drywall texture on all the floors of building M.

Contractors should be aware that concealed suspect asbestos-containing building materials may be uncovered during the course of demolition or renovation work. Contractors should have contingency plans that include stopping work, evacuation of the immediate area and sampling by a certified AHERA Building Inspector whenever these materials are found. Concealed suspect materials may include, but are not limited to: non-fiberglass pipe or roof drain insulation; spray-applied coatings; cement board; asphalt or paper vapor barriers; floorings and adhesives.

If discovered, all asbestos-containing materials that will be disturbed as a natural part of renovation and/or demolition are required to be removed and disposed of in accordance with Washington State regulations. Washington State Department of Labor and Industries and PSCAA require that the abatement be performed using Certified Asbestos Workers under the direct on site supervision by a Certified Asbestos Supervisor.

NVL recommends that an AHERA inspector/project manager be on site at the time of renovation/demolition to ensure that any potentially asbestos-containing materials uncovered during the process of renovation/demolition be dealt with properly.

NVL Labs, Inc. is making the following recommendations regarding asbestos:

1. A copy of this inspection report should be maintained at the project site during demolition.

"Cascadian Apartments" 15517 NE 12th Street, Bellevue, WA 98007 Project Number: 2016-1117

- 2. A copy of this inspection report should be provided to the General Contractor and any Sub Contractors working on the project.
- 3. A licensed asbestos abatement contractor must be utilized to remove any asbestos-containing materials that will be impacted by the planned demolition.

#### 7.0 LIMITATIONS OF SURVEY

The sole purpose of this Limited Good Faith Asbestos Inspection report is to document asbestos-containing building materials discovered at the Cascadian Apartments located at 15517 NE 12<sup>th</sup> Street, Bellevue, WA 98007

The purpose of this inspection was to identify all suspect asbestos-containing building materials which would be impacted by the planned renovations. As per the client (Hugh Watkinson) onsite, these renovations include plumbing and fixture upgrades in four buildings that will disturb wall/ceiling systems. Due to occupancy, destructive sampling methods were not utilized to collect samples of suspect building materials. No soft/limited demolition was performed during this inspection. Please note that hidden materials may exist within the structures, and all suspect materials must be treated as asbestos containing until testing proves otherwise.

This site visit consisted of a thorough visual walk-through of the building for the purpose of viewing and sampling potential asbestos-containing material. As hazardous material surveys are non-comprehensive by nature, NVL Laboratories, Inc. cannot be held liable for materials which require destructive means to access, materials which are hidden from sight (e.g. materials hidden behind walls), materials which cannot be found due to their obscure nature, or which otherwise cannot be discovered with reasonable diligence.

This document is the sole property of NVL Laboratories and the property owner, or his agent, authorizing this survey.

Inspected By

**Derrick Gallard** 

AHERA Building Inspector AHERA Certification: #159360 Expiration Date: October 19, 2017 Reviewed By

**Syed Hasan** 

Manager Field Services

AHERA Certification: # 159150 Expiration Date: October 5, 2017



# Appendix A

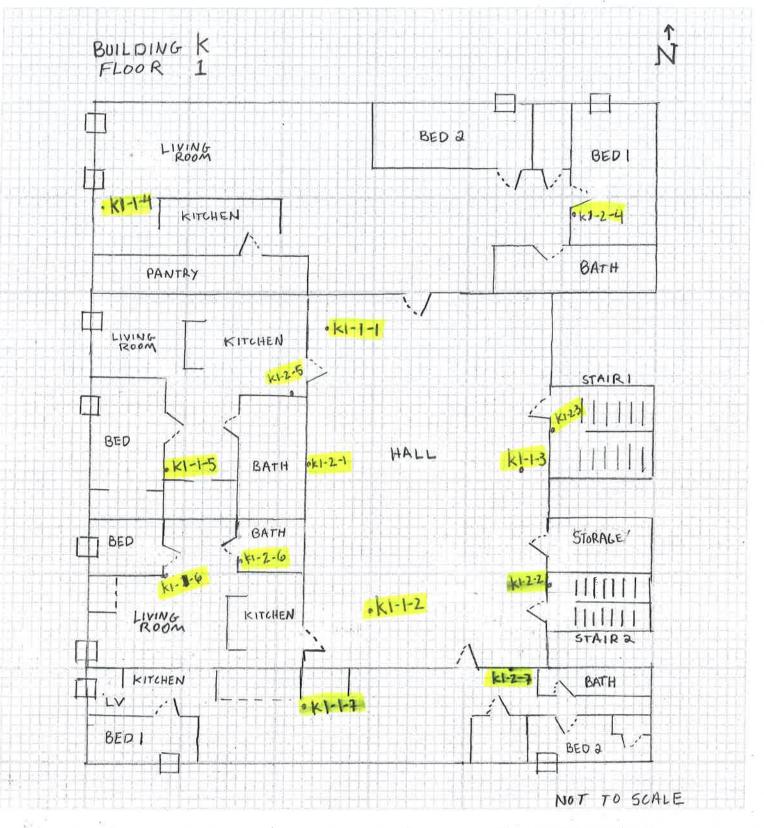
Sample Locations (Floor Plan)



Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue





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NVL Project # 2016-1117

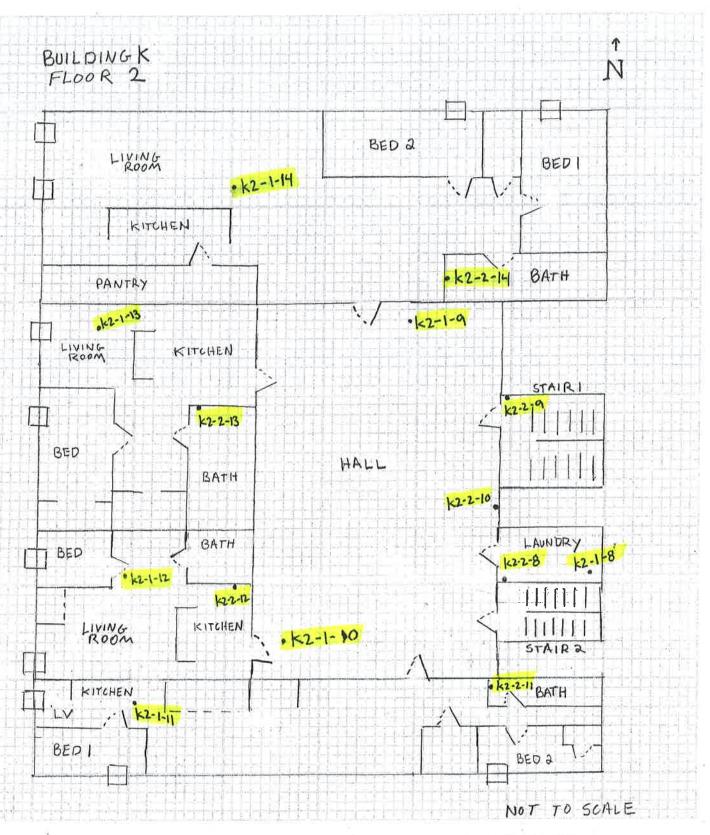
Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

Page 2 of 12

Date 1/9/2017





Laboratory | Management | Training

NVL Project # 2016-1117

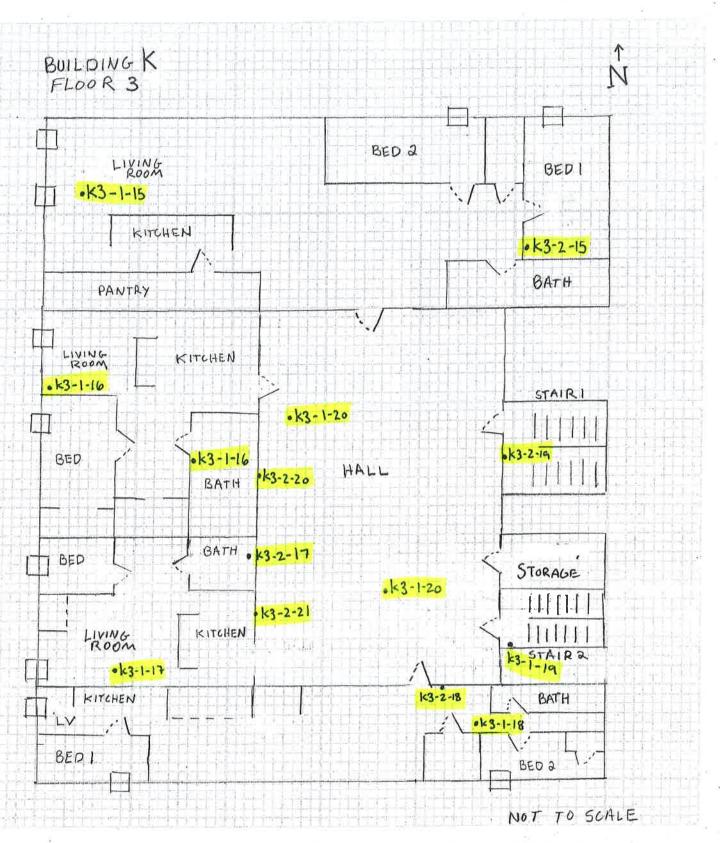
Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

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Date 1/9/2017





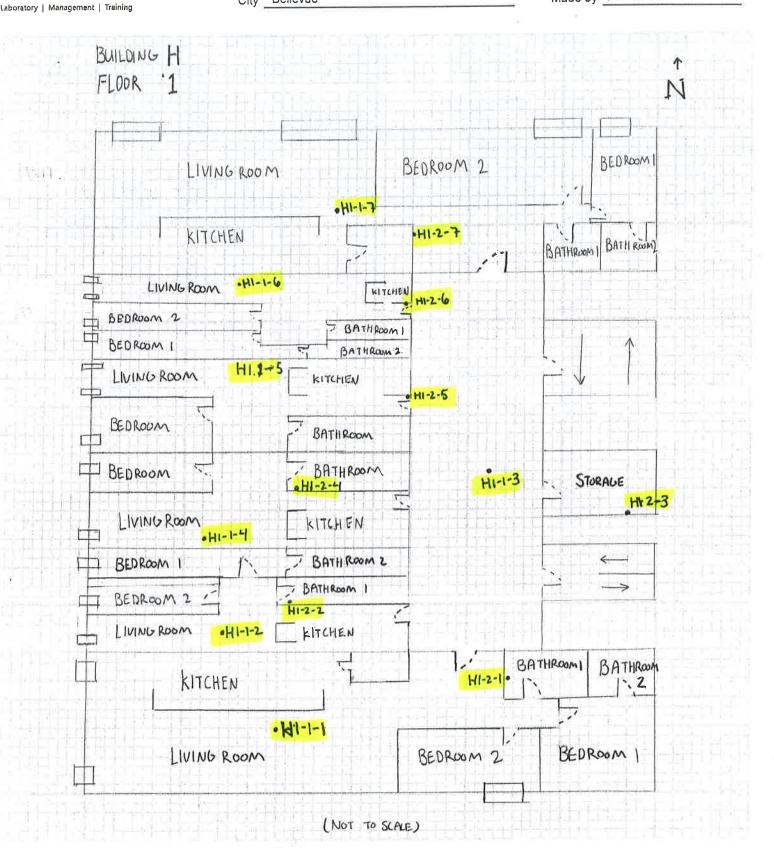
A B S Client N

Client King County Housing Authority - Hugh

NVL Project # 2016-1117

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue





Laboratory | Management | Training

NVL Project # 2016-1117

Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

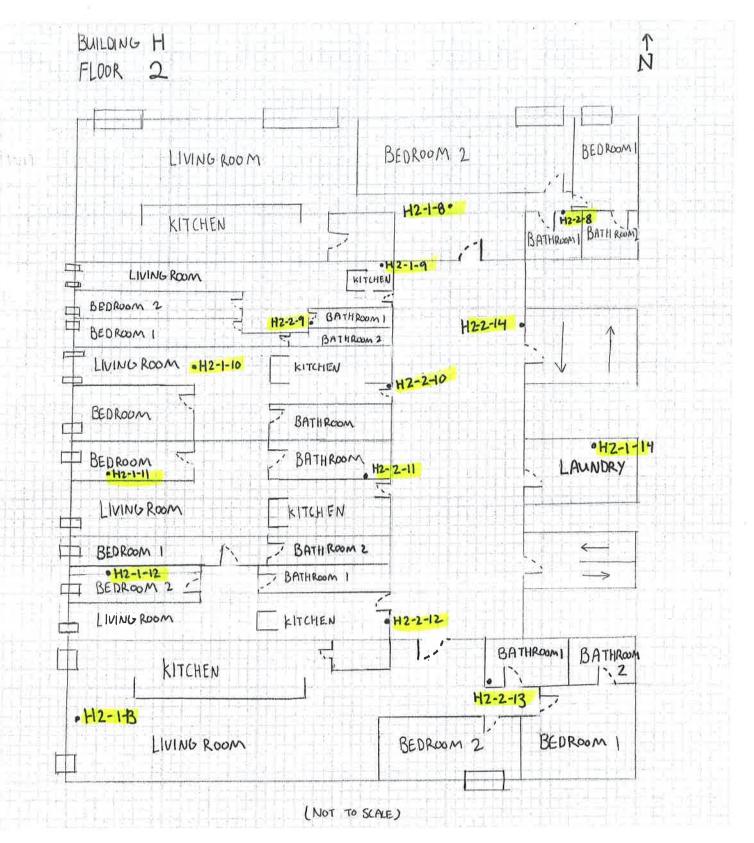
Date 1/9/2017

Page \_\_\_\_

City Bellevue

Made by Derrick Gallard

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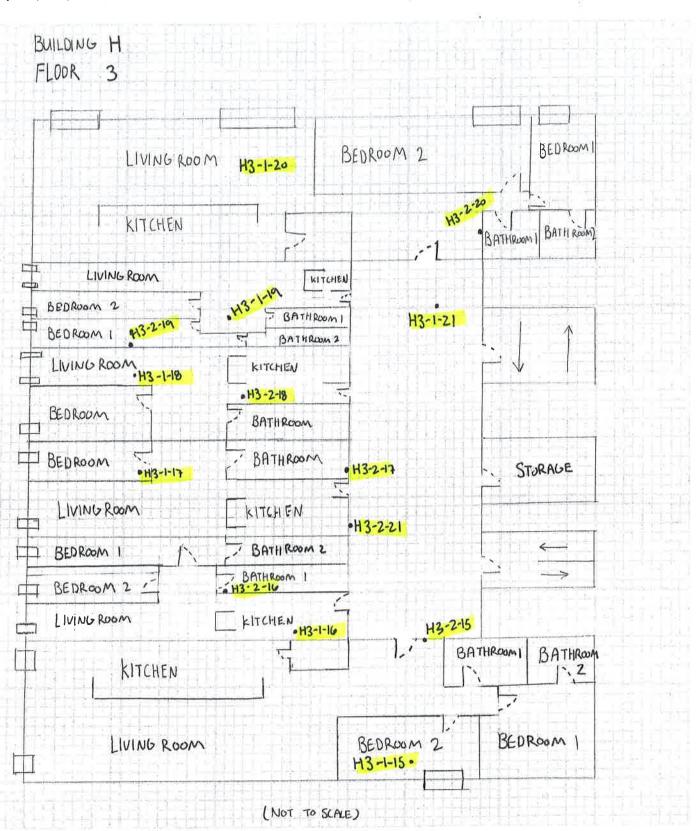
Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

Page \_\_6\_\_ of \_\_12\_

Date 1/9/2017





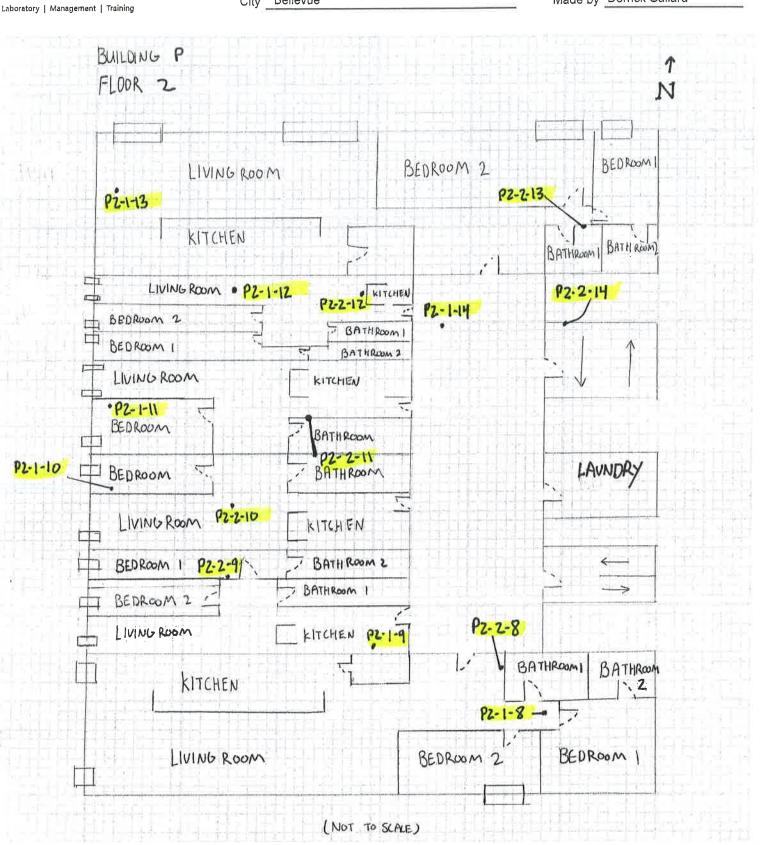
Client King County Housing Authority - Hugh

"Cascadian Apartments" 15517 NE 12th St Location

City Bellevue

Page \_\_\_\_\_\_

Date 1/9/2017





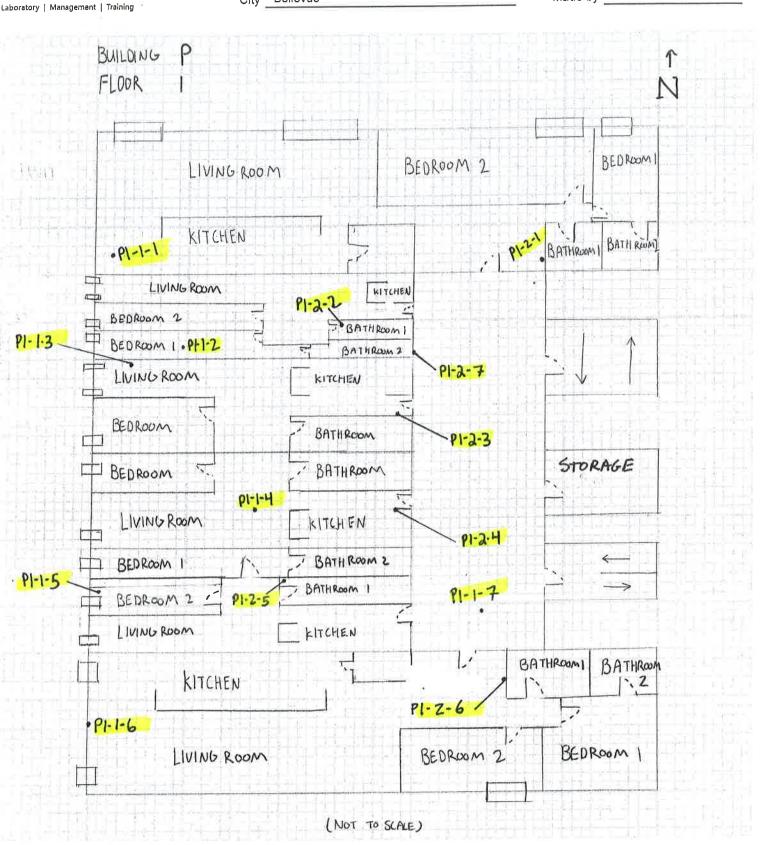
Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

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Date 1/9/2017





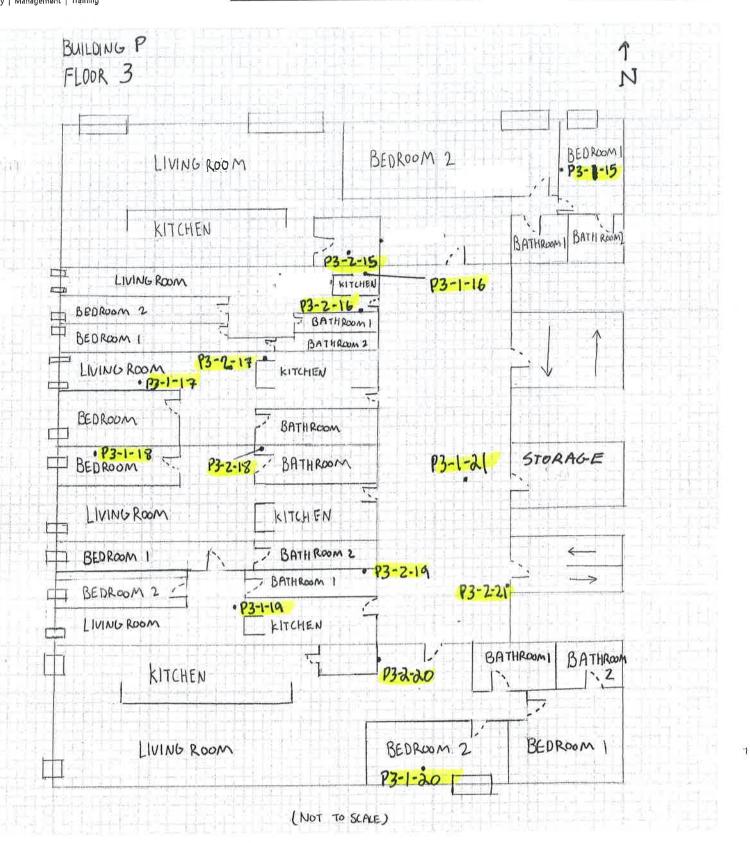
King County Housing Authority - Hugh Client

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"Cascadian Apartments" 15517 NE 12th St

Date 1/9/2017

City Bellevue





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NVL Project # 2016-1117

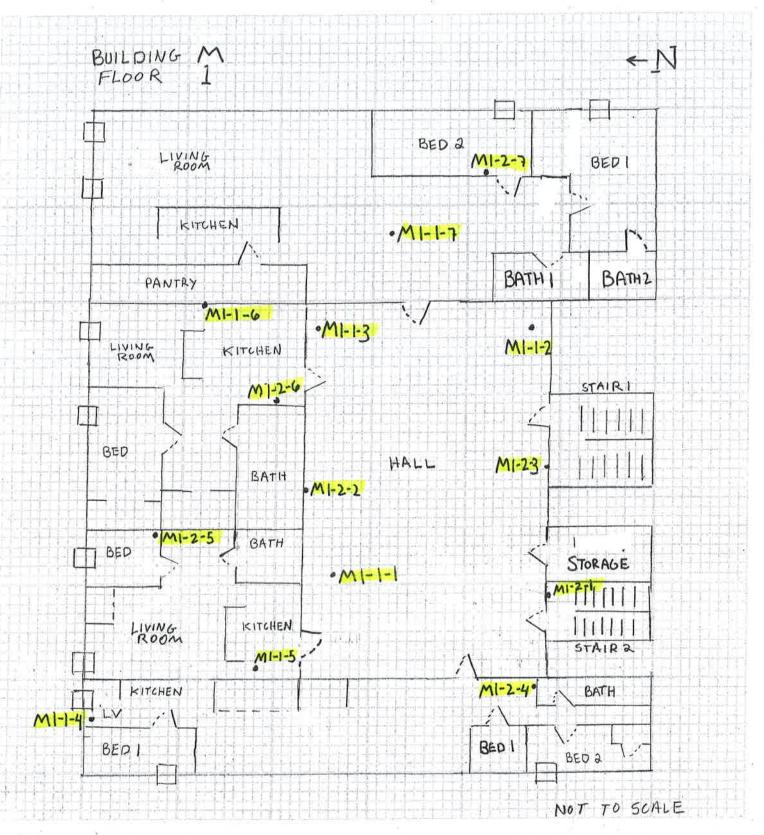
Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

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Date 1/9/2017





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NVL Project # 2016-1117

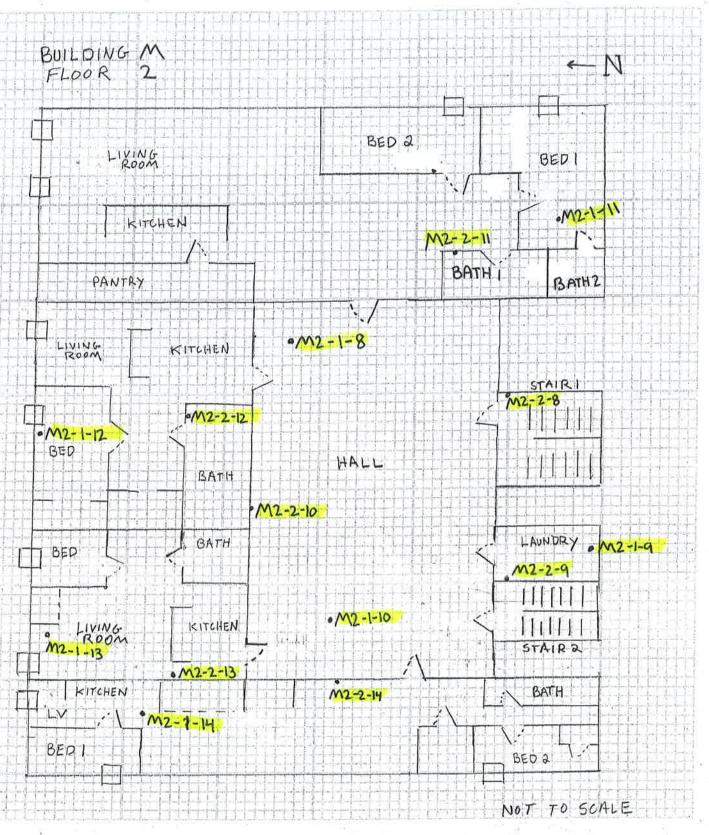
Client King County Housing Authority - Hugh

"Cascadian Apartments" 15517 NE 12th St Location

Bellevue City ...

Date 1/9/2017

Made by Derrick Gallard





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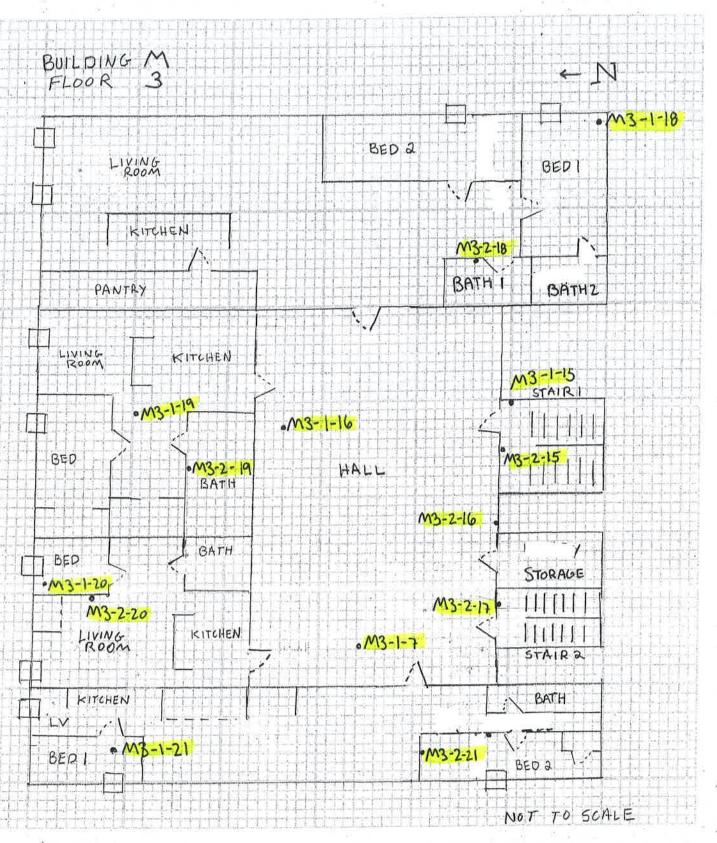
NVL Project # 2016-1117

Client King County Housing Authority - Hugh

Location "Cascadian Apartments" 15517 NE 12th St

City Bellevue

Page 12 of 12
Date 1/9/2017





# Appendix B

**Laboratory Analysis Results** 

January 10, 2017

Derrick Gallard NVL Field Services Division 4708 Aurora Ave. N. Seattle, WA 98103



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1700440.00

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Dear Mr. Gallard.

Enclosed please find test results for the 42 sample(s) submitted to our laboratory for analysis on 1/9/2017.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Lori Tseng, Laboratory Analyst

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com Enc.: Sample Results

Lab Code: 102063-0

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nyllabs.com



**Bulk Asbestos Fibers Analysis** 

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

(Bldg. K-1)

Client Sample #: 2017-1117-K1-1-1 Lab ID: 17002177

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Layer 1 of 1

Description: White lumpy material with paint

Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %

Calcareous binder, Mica, Paint

Cellulose 4% Chrysotile 5%

Lab ID: 17002178 Client Sample #: 2017-1117-K1-1-2 Sample Status:

Not Analyzed

Lab ID: 17002179 Client Sample #: 2017-1117-K1-1-3 Sample Status:

Not Analyzed

Client Sample #: 2017-1117-K1-1-4 Lab ID: 17002180

Sample Status:

Not Analyzed

Lab ID: 17002181

Client Sample #: 2017-1117-K1-1-5

Sample Status:

Not Analyzed

Lab ID: 17002182

Client Sample #: 2017-1117-K1-1-6

Sample Status:

**Not Analyzed** 

Lab ID: 17002183

Client Sample #: 2017-1117-K1-1-7

Sample Status:

4%

**Not Analyzed** 

Lab ID: 17002184

Client Sample #: 2017-1117-K1-2-1

Layer 1 of 2

Description: White compacted powdery material with paint

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Calcareous binder, Paint

Cellulose

Chrysotile 3%

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

(Bldg. K-1)

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Gypsum/Binder, Binder/Filler

Cellulose 29%

None Detected ND

Lab ID: 17002185

Client Sample #: 2017-1117-K1-2-2

Sample Status:

Not Analyzed

Lab ID: 17002186

Client Sample #: 2017-1117-K1-2-3

Sample Status:

Not Analyzed

Lab ID: 17002187

Client Sample #: 2017-1117-K1-2-4

Sample Status:

Not Analyzed

Lab ID: 17002188

Client Sample #: 2017-1117-K1-2-5

Sample Status:

Not Analyzed

Lab ID: 17002189

Client Sample #: 2017-1117-K1-2-6

Sample Status:

Not Analyzed

Lab ID: 17002190

Client Sample #: 2017-1117-K1-2-7

Sample Status:

Not Analyzed

Lab ID: 17002191

Client Sample #: 2017-1117-K2-1-8

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Layer 1 of 1

Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous binder, Mica, Paint

Cellulose 6% Chrysotile 6%

Lab ID: 17002192

Client Sample #: 2017-1117-K2-1-9

Sample Status:

Not Analyzed

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

(Blda, K-1)

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-32-020

( blug.	N-1)		Q 21 7 000071014 Q2 020
Lab ID: 17002193	Client Sample #: 2017-1117-K2-1-1	0 Sample Status	s: Not Analyzed
Lab ID: 17002194	Client Sample #: 2017-1117-K2-1-1	1 Sample Status	s: Not Analyzed
Lab ID: 17002195	Client Sample #: 2017-1117-K2-1-1	2 Sample Status	s: Not Analyzed
Lab ID: 17002196	Client Sample #: 2017-1117-K2-1-1	3 Sample Status	s: Not Analyzed
Lab ID: 17002197	Client Sample #: 2017-1117-K2-1-1	4 Sample Status	s: Not Analyzed
	Client Sample #: 2017-1117-K2-2-8 partments" 15517 NE 12th St. Bellevue, W.	A 98007 ( Bldg. K-1)	
Layer 1 of 2 Descr	iption: White compacted powdery material  Non-Fibrous Materials:	with paint Other Fibrous Materials:%	Asbestos Type: %
Calcareous	s particles, Calcareous binder, Paint	Cellulose 2%	Chrysotile 2%
	iption: White chalky material with paper		
,	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Gypsum/Binder, Binder/Filler	Cellulose 30%	None Detected ND
Lab ID: 17002199	Client Sample #: 2017-1117-K2-2-9	Sample Status	s: Not Analyzed
Lab ID: 17002200	Client Sample #: 2017-1117-K2-2-1	0 Sample Status	s: Not Analyzed

Sampled by: Client

Analyzed by: Jacob Laugeson Reviewed by: Lori Tseng

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Date: 01/10/2017

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Asbestos Type: %

Chrysotile 5%

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

(Bldg. K-1)

Lab ID: 17002201 Client Sample #: 2017-1117-K2-2-11 Sample Status: Not Analyzed

Sample Status: Not Analyzed Lab ID: 17002202 Client Sample #: 2017-1117-K2-2-12

Sample Status: **Not Analyzed** Lab ID: 17002203 Client Sample #: 2017-1117-K2-2-13

Sample Status: **Not Analyzed** Lab ID: 17002204 Client Sample #: 2017-1117-K2-2-14

Client Sample #: 2017-1117-K3-1-15 Lab ID: 17002205

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Layer 1 of 1 Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Calcareous binder, Mica, Paint Cellulose 7%

Lab ID: 17002206 Client Sample #: 2017-1117-K3-1-16 Sample Status: Not Analyzed

Sample Status: Not Analyzed Lab ID: 17002207 Client Sample #: 2017-1117-K3-1-17

**Not Analyzed** Client Sample #: 2017-1117-K3-1-18 Sample Status: Lab ID: 17002208

Client Sample #: 2017-1117-K3-1-19 Lab ID: 17002209 Sample Status: Not Analyzed

Not Analyzed Sample Status: Lab ID: 17002210 Client Sample #: 2017-1117-K3-1-20

Sampled by: Client

Analyzed by: Jacob Laugeson Date: 01/10/2017

Date: 01/10/2017 Lori Tseng, Laboratory Analyst Reviewed by: Lori Tseng

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and aculty of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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# **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

( Bldg. K-1)

Lab ID: 17002211

Client Sample #: 2017-1117-K3-1-21

Sample Status:

**Not Analyzed** 

Lab ID: 17002212

Client Sample #: 2017-1117-K3-2-15

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Layer 1 of 1

Description: White chalky material with paper and paint

Non-Fibrous Materials: Other Fibro

Other Fibrous Materials:%

Asbestos Type: %

Gypsum/Binder, Binder/Filler, Paint

Cellulose 28%

None Detected ND

Lab ID: 17002213

Client Sample #: 2017-1117-K3-2-16

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 (Bldg. K-1)

Layer 1 of 2

Description: White thin compacted powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Calcareous binder, Paint

Cellulose 3%

Chrysotile 2%

Layer 2 of 2

Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Gypsum/Binder, Binder/Filler

Cellulose 28%

None Detected ND

Lab ID: 17002214

Client Sample #: 2017-1117-K3-2-17

Sample Status:

Not Analyzed

Lab ID: 17002215

Client Sample #: 2017-1117-K3-2-18

Sample Status:

Not Analyzed

Lab ID: 17002216

Client Sample #: 2017-1117-K3-2-19

Sample Status:

Not Analyzed

Lab ID: 17002217

Client Sample #: 2017-1117-K3-2-20

Sample Status:

Not Analyzed

Sampled by: Client

Reviewed by: Lori Tseng

Analyzed by: Jacob Laugeson

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and aculty of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

(Bldg. K-1)

Batch #: 1700440.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 7

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002218

Client Sample #: 2017-1117-K3-2-21

Sample Status:

**Not Analyzed** 

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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Company	NVL Field Services Division	NVL E	Batch N	lumber 1	700440	.00
Address	4708 Aurora Ave. N.	TAT	2 Day	S		AH No
	Seattle, WA 98103	Rush	TAT			
Project Manager	Mr. Derrick Gallard	Due D	ate	1/11/2017	Time	4:30 PM
Phone	(206) 547-0100	Email	derric	k.g@nvllab	os.com	
Cell	(425) 985-1253	Fax	(206)	634-1936		

Proj	ect Name/N	umber: 2016-1117	Project Location	"Cascadian Apartments" 15517 NE 12th St 98007 ( Bldg. K-1)	Bellevue, WA
Subc	ategory PLM	1 Bulk			
Ite	m Code ASE	3-02 EPA	600/R-93-116 Asbestos by	PLM <bulk></bulk>	
То	tal Numbe	er of Samples4	2	Rush Samp	oles
	Lab ID	Sample ID	Description		A/R
1	17002177	2017-1117-K1-1-1	Stop @ First Posit	ve	A
2	17002178	2017-1117-K1-1-2			A
3	17002179	2017-1117-K1-1-3			A
4	17002180	2017-1117-K1-1-4			A
5	17002181	2017-1117-K1-1-5			Α
6	17002182	2017-1117-K1-1-6			A
7	17002183	2017-1117-K1-1-7			Α
8	17002184	2017-1117-K1-2-1	Stop @ First Posit	ve	A
9	17002185	2017-1117-K1-2-2			A
10	17002186	2017-1117-K1-2-3			A
11	17002187	2017-1117-K1-2-4			A
12	17002188	2017-1117-K1-2-5			Α
13	17002189	2017-1117-K1-2-6			Α
14	17002190	2017-1117-K1-2-7			A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/9/17	1630
Analyzed by	Jacob Laugeson		NVL	1/10/17	
Results Called by					
🗌 Faxed 🔲 Emailed					
Special Instructions:		·		=	All Control of the Co

Stop @ First Positive

Date: 1/9/2017 Time: 4:34 PM

15 17002191

16 17002192

18 17002194

17002193

17

Entered By: Umer Khan

2017-1117-K2-1-8

2017-1117-K2-1-9

2017-1117-K2-1-10

2017-1117-K2-1-11

# ASBESTOS LABORATORY SERVICES

(206) 634-1936



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Cell (425) 985-1253

Company	NVL Field Services Division	NVL Batch N	umber	1700440	0.00	
Address	4708 Aurora Ave. N.	TAT 2 Days	S		АН	No
	Seattle, WA 98103	Rush TAT				
Project Manager	Mr. Derrick Gallard	Due Date	1/11/201	7_ Time	4:30 PM	√l
Phone	(206) 547-0100	Email derrick	c.a@nvlla	abs.com		

Item Code ASB-02         EPA 600/R-93-116 Asbestos by PLM <bul>         PLM <bul>         PLM <bul>         PLM <bul>         PLM <bul>         Samples           Lab ID         Sample ID         Description         A/R           19         17002195         2017-1117-K2-1-12         A           20         17002196         2017-1117-K2-1-13         A           21         17002197         2017-1117-K2-1-14         A           22         17002198         2017-1117-K2-2-8         Stop @ First Positive         A           23         17002199         2017-1117-K2-2-9         A           24         17002200         2017-1117-K2-2-10         A</bul></bul></bul></bul></bul>				
Proj	ect Name/N	umber: 2016-1117	FIGURE LOGATION.	·
Subcategory PLM Bulk  Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>  Total Number of Samples 42 Rush Samples</bulk>				
Ite	m Code ASE	-02 EPA	600/R-93-116 Asbestos by PLM <	bulk>
То	tal Numbe	er of Samples4	D. Therescale and the State of	Rush Samples
	Lab ID	Sample ID	Description	A/R
19	17002195	2017-1117-K2-1-12		Α Α
20	17002196	2017-1117-K2-1-13		A
21	17002197	2017-1117-K2-1-14		A
22	17002198	2017-1117-K2-2-8	Stop @ First Positive	A
23	17002199	2017-1117-K2-2-9		A
24	17002200	2017-1117-K2-2-10		A
25	17002201	2017-1117-K2-2-11		A
26	17002202	2017-1117-K2-2-12		A
27	17002203	2017-1117-K2-2-13		A
28	17002204	2017-1117-K2-2-14		Α

Stop @ First Positive

Stop @ First Positive

	Print Name	Signature	Company	Date	Time	е
Sampled by	Client					
Relinquished by	Client					
Office Use Only	Print Name	Signature	Company	Date	Time	Э
Received by	Umer Khan		NVL	1/9/17	1630	М
Analyzed by	Jacob Laugeson		NVL	1/10/17		
Results Called by						
🗌 Faxed 📋 Emailed						
Special Instructions:		F ===		***		

Date: 1/9/2017 Time: 4:34 PM

29 17002205

30 17002206

31 17002207

32 17002208

33 | 17002209

35 | 17002211

36 17002212

34

17002210

2017-1117-K3-1-15

2017-1117-K3-1-16

2017-1117-K3-1-17

2017-1117-K3-1-18

2017-1117-K3-1-19

2017-1117-K3-1-20

2017-1117-K3-1-21

2017-1117-K3-2-15

Entered By: Umer Khan

# ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

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Company	NVL Field Services Division	NVL Batch	Number 1	700440	0.00	
Address	4708 Aurora Ave. N.	TAT 2 Days			AH No	
	Seattle, WA 98103	Rush TAT				
Project Manager	Mr. Derrick Gallard	Due Date	1/11/2017	Time	4:30 PM	
Phone (206) 547-0100		Email derrick.g@nvllabs.com				
Cell	(425) 985-1253	Fax (206) 634-1936				

Project Name/Number: 2016-1117		Project Location:	on: "Cascadian Apartments" 15517 NE 12th St. Bell 98007 ( Bldg. K-1)		
Subc	ategory PLN	1 Bulk			
Ite	m Code ASB	i-02 EPA	600/R-93-116 Asbestos by	PLM <bulk></bulk>	
_					
То	tal Numbe	er of Samples 42	Description	Rus	h SamplesA/R
<b>To</b>				Rus	•
	Lab ID	Sample ID		Rus	A/R
37	Lab ID 17002213	Sample ID 2017-1117-K3-2-16		Rus	A/R
37 38	Lab ID 17002213 17002214	Sample ID 2017-1117-K3-2-16 2017-1117-K3-2-17		Rus	A/R A A
37 38 39	Lab ID 17002213 17002214 17002215	Sample ID 2017-1117-K3-2-16 2017-1117-K3-2-17 2017-1117-K3-2-18		Rus	A/R A A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client			-	
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/9/17	1630
Analyzed by	Jacob Laugeson		NVL	1/10/17	
Results Called by					
☐ Faxed ☐ Emailed					
Special Instructions:					

Date: 1/9/2017 Time: 4:34 PM

Entered By: Umer Khan

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# CHAIN of CUSTODY SAMPLE LOG

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	OU NI	اوا ا/\	ooratories	s Inc						umber			
	Street 4						-	Client .	Job N	umber 201	6-1117		
	-		WA 9810					То	otal Sa	mples #	- 4/2		
roject M	anager S						Turn Around Time 1 1 Hr 6 Hrs 3 Days 110					☐ 10 Day	
roject ivi	anager <u> </u>	Cascac	lian Apar	tments"	15517 N	E 12th St		uiii Ai	ouna	2 H	rs ☐ 1 Day rs [☑ 2 Day	/ ☐ 4 Days /s ☐ 5 Days	
OJECT LO	B	ellevue	e, WA 98	007 (B	LD K-	1)				<u>□</u> → / ·		for TAT less tha	n 24 Hrs
	-			-			_	En	mail ac	dress hugi			
	Phone: (2	206) 57	74-1230	Fax:	(206) 35	7-2441		С	cell (20	06) 979-082	26		
Asbe	stos Air	PC	ROIN) M	H 7400)	☐ TEM (I	VIOSH 740	2) [	TEM	(AHEI	RA) 🗌 TEI	M (EPA Lev	vel II)	er
Asbe	stos Bulk	⊠ PL	M (EPA/6	00/R-93/	116) 🗌 F	LM (EPA F	oint (	Count)	□P	LM (EPA Gr	avimetry)	☐ TEM BULK	(
Mold	/Fungus	□ Мо	ld Air 🗌	Mold Bu	ılk 📗 📙 F	Rotometer	Calib	ration					
METALS Total TCLP Cr 6	Metals	□ ICI	.lmlt .A (ppm) P (ppm) FAA (ppb)	l = .	llter king water /wipe (Area				☐ Ai	A Metals rsenic (As) arium (Ba) admium (Cd	Lead	mium (Cr CPb)	er Metals All 3 Copper (C lickel (Ni) Cinc (Zn)
	nalysis	□ Sili		Respi	nce Dust rable Dust	Other		Amm			-		
Conditio	n of Pack	age: L	_  Good	Dama	nged (no sp	oillage)	Seve	ere dan	nage (	spillage)			
Seq. #	Lab ID		Clien	t Sample	e Number	Comment			-				A/
1			2016-		KI-1-1	STOP	0	IST	ros	TIVE			
2				l l	<1-1-2		1_						
3					<1- -3								
4					1-1-4								
5					4-1-5						and Thomas		
6					c1-1-6								
7			A		14-1-7		<u> </u>						
8			7016-	1117	K1-2-1	STOP	0	ST	· 60	SITIUE	100		
9			1	1	<1-2-2								
10					K1-2-3								
11			W	L	K1-2-4								
12					K1-2-5								
13					K1-2-6								
14			1		2-7		$\overline{\Psi}$						
15	P"												
		Prin	t Below		Sian Belo	w			C	ompany		Date	Time
S	ampled b		FRRICI	(	0	L				NUL		1/9/18	gioda
Relino	quished b	15	ERRICH		1	6				NUL		1/9/17	4.30
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	nalyzed b												
	s Called b												
		-											
					-					4. (5)		-1	
Special	Instruct		Unless red	quested		all samples		e dispo	osed of	f two (2) wee	ks after an	alysis.	

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# CHAIN of CUSTODY SAMPLE LOG

1700440

TD.

Client NV	L Laboratorie	s Inc			tch Number			
-	08 Aurora Ave			Client Job Number 2016-1117				
	attle, WA 981			Total Samples 42				
Project Manager Sv				Turn Arc	ound Time 🗌 1 Hr	☐ 6 Hrs ☐ 3 Days	🗌 10 Days	
Project Location "Ca	ascadian Apar	tments" 15517 N	JE 12th St		☐ 2 Hrs	☐ 1 Day ☐ 4 Days ☐ 2 Days ☐ 5 Days		
Be	llevue, WA 98	007 (BLO K-	2)			lease call for TAT less that	n 24 Hrs	
-		(1000 )c	<u> </u>	Em	ail address hughv		12-111	
Phone: (20	06) 574-1230	Fax: (206) 35	57-2441		ell (206) 979-0826			
			(NIOSH 7402)	TEM	(AHERA) TEM	(EPA Level II) 🗌 Oth	er	
Asbestos Bulk	PLM (EPA/6	00/R-93/116)	PLM (EPA Poi	nt Count)	PLM (EPA Grav	imetry) TEM BULK	(	
☐ Mold/Fungus	Mold Air	Mold Bulk	Rotometer Ca	libration				
☐ Total Metals ☐ TCLP	Det. Limit  ☐ FAA (ppm)  ☐ ICP (ppm)  ☐ GFAA (ppb)	Matrix Air Filter Drinking water Dust/wipe (Are			RCRA Metals Arsenic (As) Barium (Ba) Cadmium (Cd)	Chromium (Cr	e <b>r Metals</b> All 3 Copper (Cu) lickel (Ni) Linc (Zn)	
	Fiberglass [	Nuisance Dust Respirable Dus		pecify)				
Condition of Packa	ge: 🗌 Good	Damaged (no s	pillage) 🗌 S	evere dam	age (spillage)			
Seq. # Lab ID	Clien	t Sample Number	Comments				A/R	
1		- 1117-k2-1-8		6 ST	POSITIUE			
2		1						
3		k2-1-10	A					
4		k2-1-11						
5		k2-1-12						
6		12-1-13						
7		/ k2-1-1						
8	2016-	1117-k2- <b>2</b> -8		@ 151	POSITIVE			
9	2018	1 12-2-9	200	<u> </u>	1-01			
10		k2-2-10						
11		k2-2-11						
12		k2-2-12						
13		k2-2-13					5.	
14				/				
15		18-6-11					(2)	
					0	Data	Time	
0	Print Below DERRICK	Sion Bel	OW		Company	Date 1/9/17	Time 9,01 9,	
Sampled by			1		NUL	1/9/17	4:30	
Relinquished by		3.	11000		NUL	1/4/12	16:30	
Received by	Cima	- 66	19000		1200	14 71 1	Lo	
Analyzed by								
Results Called by								
Results Faxed by	V							
Special Instruction Results report to		quested in writing,	all samples w	II be dispos	sed of two (2) weeks	after analysis.		

# CHAIN of CUSTODY SAMPLE LOG

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	114	1//	TID.
4	0		S

1700440

206.547.0	100   f 206.6	34,1936	www	v.nvllabs.com									10	<b>U44</b>	HU	
	Client NVI	_ Labor	atorie	s Inc						ch Nu			_			
	Street 470							Clie	ent Jo	ob Nu	mber 20	16-111 د سید	7			
		attle, W.			1				Tota	al Sar	nples	4	12			
roject M	anager Sve	d Hasa	an					Turr	Aro	und T	ime 🗀 1	Hr □6 Hrs □′	3 Hrs [	]3 Days	10 D	ays
oject Lo	cation "Ca	scadiar	n Apai	rtments"	15517 N	E 12th	St						2 Days			
	Bel	levue, V	NA 98	3007 (	BLD k	-3)		4						AT less thai	1 24 Hrs	ž
	100				(000) 05	7.044					dress hu		cha.org			
	Phone: (20				(206) 35			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			6) 979-0		A Lovel II	Oth	ar .	
	estos Air			H 7400)	CONTRACTOR OF THE PARTY OF THE											-
	111 - Table 11		251								IVI (EFA C	aviille	ny/	LIVI DOLI		-
				Mold Bull	K LLI	cotome	eter C	alibrati	On	DCD.	A Biladala	ПА	JI 8		er Met	als
METAL Total		et. Lim		Matrix Air Filt	ter		Soil				<b>A Metals</b> senic (As)		an o Chromiur	n (Cirl —	All 3	
TCL	-	_ FAA ( _ ICP (ı		1,	ng water			Chips ii			rium (Ba)		Lead (Pb		Copper	
Cr 6		GFAA		☐ Dust/v	vipe (Are	a) 🗌	Paint	Chips i	n cm	☐ Ca	dmium (C	d) 🗌 l	Mercury (		lickel (l inc (Zr	
Otho		Fiberg			ce Dust	По	ther (	Specify	-	AT. P. 100.000	· W				ino (an	
		Silica		Resnira			11011	ороспу								
	n of Packag	ge: 🗌 🤇	Good	Damag	ged (no s <sub>l</sub>	oillage)		Severe	dama	age (s	pillage)					
Seq.#	Lab ID		Clier	nt Sample	Number	Comr	nents									A/R
1				1117 - K				IST	Pos	31711	压					
2			1		1-16		ī									
3					-1-17											
4				-13	-1-18					131-1111-1						
5				- k3	-1-19											
6				-10	3-1-20											
7			1	1 -k3	-1-21	,	¥									
8			2016-	1117 - K3	-2-15	STOP	0	157	POS	SITH	)E					
9				k3-	2-16				_							ļ
10				k3	-2-17				_							_
11					-2-18							-				-
12					-2-19		_		_							-
13					-2-20				_							-
14				1<3	3-2-21	,	V		-							-
15							_									
		Print B			Sian Bel	ow			-	C	ompany	_		Date	Time	) ~
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	nalyzed by								_	_						
D 14	s Called by								-	-					-	-
	ts Faxed by														100	

January 10, 2017

Derrick Gallard NVL Field Services Division 4708 Aurora Ave. N. Seattle, WA 98103



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1700441.00

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Dear Mr. Gallard,

Enclosed please find test results for the 42 sample(s) submitted to our laboratory for analysis on 1/9/2017.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Lori Tseng, Laboratory Analyst

1.888.NVL.LABS Enc.: San

1.888.(685.5227)

www.nvllabs.com

Enc.: Sample Results

Lab Code: 102063-0

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Lab ID: 17002219

Client Sample #: 2016-1117-H1-1-1

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1

Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Vermiculite

None Detected ND Chrysotile 5%

Paint

Client Sample #: 2016-1117-H1-1-2 Lab ID: 17002220

Sample Status:

Not Analyzed

Lab ID: 17002221 Client Sample #: 2016-1117-H1-1-3

Sample Status:

**Not Analyzed** 

Lab ID: 17002222

Client Sample #: 2016-1117-H1-1-4

Sample Status:

**Not Analyzed** 

Lab ID: 17002223

Client Sample #: 2016-1117-H1-1-5

Sample Status:

**Not Analyzed** 

Lab ID: 17002224

Client Sample #: 2016-1117-H1-1-6

Sample Status:

**Not Analyzed** 

Lab ID: 17002225

Client Sample #: 2016-1117-H1-1-7

Sample Status:

**Not Analyzed** 

Lab ID: 17002226

Client Sample #: 2016-1117-H1-2-1

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Lan Keng

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Layer 1 of 1 Description: White chalky material with paper and paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose 18% None

Asbestos Type: %
None Detected ND

Lab ID: 17002227 Client Sample #: 2016-1117-H1-2-2

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description

Description: White chalky material with paper and layered paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Fine particles, Gypsum/Binder, Paint

Cellulose 17%

None Detected ND

Paint

Glass fibers 3%

Lab ID: 17002228 Client Sample #: 2016-1117-H1-2-3

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 2 Description: White thin textured powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

None Detected ND

Chrysotile 3%

Layer 2 of 2

Description: Pink chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 16%

None Detected ND

Glass fibers 3%

Lab ID: 17002229

Client Sample #: 2016-1117-H1-2-4

Sample Status:

Not Analyzed

Lab ID: 17002230

Client Sample #: 2016-1117-H1-2-5

Sample Status:

Not Analyzed

Lab ID: 17002231

Client Sample #: 2016-1117-H1-2-6

Sample Status:

Not Analyzed

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Law Teens

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## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002232

Client Sample #: 2016-1117-H1-2-7

Sample Status:

Not Analyzed

Lab ID: 17002233

Client Sample #: 2016-1117-H2-1-8

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1

Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Vermiculite

None Detected ND

Chrysotile 4%

Paint

Lab ID: 17002234	Client Sample #: 2016-1117-H2-1-9	Sample Status:	Not Analyzed
Lab ID: 17002235	Client Sample #: 2016-1117-H2-1-10	Sample Status:	Not Analyzed
Lab ID: 17002236	Client Sample #: 2016-1117-H2-1-11	Sample Status:	Not Analyzed
Lab ID: 17002237	Client Sample #: 2016-1117-H2-1-12	Sample Status:	Not Analyzed
Lab ID: 17002238	Client Sample #: 2016-1117-H2-1-13	Sample Status:	Not Analyzed
Lab ID: 17002239	Client Sample #: 2016-1117-H2-1-14	Sample Status:	Not Analyzed

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Lab ID: 17002240 Client Sample #: 2016-1117-H2-2-8

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Description: Trace white textured powdery material with paint Layer 1 of 2

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

Cellulose 2% Chrysotile 2%

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 18%

**None Detected ND** 

Glass fibers 4%

Client Sample #: 2016-1117-H2-2-9 Lab ID: 17002241

Sample Status:

**Not Analyzed** 

Lab ID: 17002242

Client Sample #: 2016-1117-H2-2-10

Sample Status:

Not Analyzed

Lab ID: 17002243

Client Sample #: 2016-1117-H2-2-11

Sample Status:

Not Analyzed

Lab ID: 17002244

Client Sample #: 2016-1117-H2-2-12

Sample Status:

Not Analyzed

Lab ID: 17002245

Client Sample #: 2016-1117-H2-2-13

Sample Status:

**Not Analyzed** 

Lab ID: 17002246

Client Sample #: 2016-1117-H2-2-14

Sample Status:

Not Analyzed

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Leen Leen

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Lab ID: 17002247 Client Sample #: 2016-1117-H3-1-15

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Calcareous particles, Binder/Filler, Synthetic foam

None Detected

None Detected ND

Paint

Lab ID: 17002248 Client Sample #: 2016-1117-H3-1-16

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint and trace paper

Non-Fibrous Materials: Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

Cellulose 7% None Detected ND

Paint

Client Sample #: 2016-1117-H3-1-17 Lab ID: 17002249

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

> Other Fibrous Materials:% Non-Fibrous Materials:

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

None Detected ND

None Detected ND

Paint

Client Sample #: 2016-1117-H3-1-18 Lab ID: 17002250

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

Cellulose <1%

None Detected ND

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Client Sample #: 2016-1117-H3-1-19 Lab ID: 17002251

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

None Detected

None Detected ND

Paint

Client Sample #: 2016-1117-H3-1-20 Lab ID: 17002252

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

None Detected ND None Detected ND

Paint

Lab ID: 17002253 Client Sample #: 2016-1117-H3-1-21

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White lumpy foamy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Synthetic foam

ND None Detected

None Detected ND

Paint

Client Sample #: 2016-1117-H3-2-15 Lab ID: 17002254

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 2 Description: White textured compacted powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

None Detected ND

Calcareous particles, Binder/Filler, Paint

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Lori Tseng, Laboratory Analyst

Lew Teens

4708 Aurora Ave N, Seattle, WA 98103

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## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Layer 2 of 2 Description: Light gray chalky material with paper and paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose 16%

Asbestos Type: %

Fine particles, Gypsum/Binder, Paint

None Detected ND

Glass fibers 4%

Client Sample #: 2016-1117-H3-2-16 Lab ID: 17002255

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 2 Description: Trace white textured material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

None Detected ND None Detected ND

Layer 2 of 2 Description: White chalky material with paper and paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 16%

None Detected ND

**Paint** 

Glass fibers 3%

Client Sample #: 2016-1117-H3-2-17 Lab ID: 17002256

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White chalky material with paper and layered paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 15%

None Detected ND

Glass fibers 5%

Client Sample #: 2016-1117-H3-2-18 Lab ID: 17002257

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 1 Description: White chalky material with paper and layered paint Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: % None Detected ND

Cellulose 18% Fine particles, Gypsum/Binder, Mica

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tsena

Lori Tseng, Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and aculty of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Date: 01/10/2017

Date: 01/10/2017

4708 Aurora Ave N. Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700441.00

Client Project #: 2016-1117

Date Received: 1/9/2017

Samples Received: 42

Samples Analyzed: 19

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007

Paint

Glass fibers

4%

Client Sample #: 2016-1117-H3-2-19 Lab ID: 17002258

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 2 Description: White textured powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

None Detected ND None Detected ND

Layer 2 of 2 Description: White chalky material with paper and paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Paint

Cellulose 16%

None Detected ND

Glass fibers 3%

Lab ID: 17002259 Client Sample #: 2016-1117-H3-2-20

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Layer 1 of 2 Description: Trace off-white compacted powdery material with layered paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

None Detected

Chrysotile 2%

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 14%

None Detected ND

Glass fibers 5%

Lab ID: 17002260

Client Sample #: 2016-1117-H3-2-21

Sample Status:

Not Analyzed

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Lori Tseng

Date: 01/10/2017

Date: 01/10/2017

Law Teens Lori Tseng, Laboratory Analyst

## ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547,0100 | f 206.634.1936 | www.nvllabs.com

Company NVL Field Services Division	NVL Batch Number 1700441.00
Address 4708 Aurora Ave. N.	TAT 2 Days AH No
Seattle, WA 98103	Rush TAT
Project Manager Mr. Derrick Gallard	Due Date 1/11/2017 Time 4:30 PM
Phone (206) 547-0100	Email derrick.g@nvllabs.com
Cell (425) 985-1253	Fax (206) 634-1936

Project Name/Number: 2016-1117			Project Location:	"Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007
Subc	ategory PLN	1 Bulk		
Ite	m Code ASE	3-02 EPA	600/R-93-116 Asbestos by	PLM <bulk></bulk>
To	stal Numbe	or of Samples 4	2	Duck Counter
10	tai Numbe	er of Samples4	Languan	Rush Samples
	Lab ID	Sample ID	Description	A/F
1	17002219	2016-1117-H1-1-1		A

	Lab ID	Sample ID	Description	A/R
1	17002219	2016-1117-H1-1-1		A
2	17002220	2016-1117-H1-1-2		A
3	17002221	2016-1117-H1-1-3		A
4	17002222	2016-1117-H1-1-4		Α
5	17002223	2016-1117-H1-1-5		A
6	17002224	2016-1117-H1-1-6		A
7	17002225	2016-1117-H1-1-7		A
8	17002226	2016-1117-H1-2-1		A
9	17002227	2016-1117-H1-2-2		A
10	17002228	2016-1117-H1-2-3		A
11	17002229	2016-1117-H1-2-4		A
12	17002230	2016-1117-H1-2-5		A
13	17002231	2016-1117-H1-2-6		A
14	17002232	2016-1117-H1-2-7		A
15	17002233	2016-1117-H2-1-8		A
16	17002234	2016-1117-H2-1-9		Α.
17	17002235	2016-1117-H2-1-10		A
18	17002236	2016-1117-H2-1-11		Α.

	Print Name	Signature	Company	Date	Time
Sampled by	Client			1+	· S.
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/9/17	1630
Analyzed by	Nadezhda		NVL	1/10/17	
Results Called by					
☐ Faxed ☐ Emailed					
Special Instructions:					

Date: 1/9/2017 Time: 4:53 PM

Entered By: Maya Thetford

#### ASBESTOS LABORATORY SERVICES

(206) 634-1936



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4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Cell (425) 985-1253

Company	NVL Field Services Division	NVL Batch	Number	1700441	.00
Address	4708 Aurora Ave. N.	TAT 2 Da	ys.		AH No
	Seattle, WA 98103	Rush TAT			
Project Manager	Mr. Derrick Gallard	Due Date	1/11/201	7 Time	4:30 PM
Phone	(206) 547-0100	Email derri	ck.g@nvlla	abs.com	

Project Name/Number: 2016-1117		umber: 2016-1117	Project Location: "Cascadian 1, Bellevue \	Apartments" 15517 NE 12th St Bldg. H, Floor NA 98007
Subc	ategory PLM	1 Bulk		
Ite	m Code ASE	3-02 EPA (	00/R-93-116 Asbestos by PLM <bulk></bulk>	
То	tal Numbe	er of Samples42	no managam	Rush Samples
	Lab ID	Sample ID	Description	A/R
19	17002237	2016-1117-H2-1-12		A
20	17002238	2016-1117-H2-1-13		A
21	17002239	2016-1117-H2-1-14		A
22	17002240	2016-1117-H2-2-8		A
23	17002241	2016-1117-H2-2-9		A
24	17002242	2016-1117-H2-2-10		A
25	17002243	2016-1117-H2-2-11		A
26	17002244	2016-1117-H2-2-12		A
27	17002245	2016-1117-H2-2-13		A
28	17002246	2016-1117-H2-2-14		A
29	17002247	2016-1117-H3-1-15		A
30	17002248	2016-1117-H3-1-16		A
31	17002249	2016-1117-H3-1-17		A
32	17002250	2016-1117-H3-1-18		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/9/17	1630
Analyzed by	Nadezhda		NVL	1/10/17	
Results Called by					
Faxed Emailed					
Special Instructions:					

Date: 1/9/2017 Time: 4:53 PM

33 17002251

35 17002253 36 17002254

17002252

2016-1117-H3-1-19

2016-1117-H3-1-20

2016-1117-H3-1-21

2016-1117-H3-2-15

Entered By: Maya Thetford

## ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Company NVL Field Services Division	NVL Batch Number 1700441.00
Address 4708 Aurora Ave. N.	TAT 2 Days AH No.
Seattle, WA 98103	Rush TAT
Project Manager Mr. Derrick Gallard	Due Date 1/11/2017 Time 4:30 PM
Phone (206) 547-0100	Email derrick.g@nvllabs.com
Cell (425) 985-1253	Fax (206) 634-1936

Proj	ect Name/Ni	umber: 2016-1117	Project Location: "Cascadian Apartments" 15517 NE 12	2th St Bldg. H, Floor
Subc	ategory PLN	l Bulk		
Ite	n Code ASB	-02 EPA	600/R-93-116 Asbestos by PLM <bulk></bulk>	
То	tal Numbe	er of Samples 42	2 Rush	Samples
То	tal Numbe	er of Samples 42	2 Rush Description	SamplesA/R
<b>To</b>				
_	Lab ID	Sample ID		A/R
37	Lab ID 17002255	Sample ID 2016-1117-H3-2-16		A/R
37 38	Lab ID 17002255 17002256	Sample ID 2016-1117-H3-2-16 2016-1117-H3-2-17		A/R A A
37 38 39	Lab ID 17002255 17002256 17002257	Sample ID  2016-1117-H3-2-16  2016-1117-H3-2-17  2016-1117-H3-2-18		A/R A A A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				17
Office Use Only	Print Name	Signature	Company	Date	Time ·
Received by	Umer Khan		NVL	1/9/17	1630
Analyzed by	Nadezhda		NVL	1/10/17	
Results Called by					
Faxed Emailed					
Special Instructions:					

Date: 1/9/2017 Time: 4:53 PM

Entered By: Maya Thetford

## CHAIN of CUSTODY SAMPLE LOG

1700441



p 206.547.0100 | f 206.634.1936 | www.nvllabs.com NVL Batch Number Client NVL Laboratories Inc. Client Job Number 2016-1117 Street 4708 Aurora Ave N Total Samples Seattle, WA 98103 🖺 6 Hrs Turn Around Time 1 Hr 6 Hrs 3 Days 2 Hrs 1 Day 4 Days ☐ 3 Davs ☐ 10 Davs Project Manager Syed Hasan Project Location "Cascadian Apartments" 15517 NE 12th St 4 Hrs 2 Days 5 Days Bellevue, WA 98007 BIDG H, Sloor 1 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Cell (206) 979-0826 Phone: (206) 574-1230 Fax: (206) 357-2441 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK Rotometer Calibration Mold/Fungus Mold Air Mold Bulk Other Metals ☐AII 8 **RCRA Metals** Matrix **METALS** Det. Limit All 3 Air Filter ☐ Soil Chromium (Ci Arsenic (As) ☐ Total Metals FAA (ppm) Copper (Cu) Paint Chips in % Barium (Ba) Lead (Pb) Drinking water ☐ TCLP ICP (ppm) GFAA (ppb) Dust/wipe (Area) Paint Chips in crr Cadmium (Cd) Mercury (Hg) Nickel (Ni) □ Cr 6 Zinc (Zn) ☐ Fiberglass ☐ Nuisance Dust Other (Specify) Other Types Silica Respirable Dust of Analysis Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Sea. # Lab ID Stop & First positive 2016-1117.41.1.1 1 H1.1.2 2 41.1.3 3 1-1-1-4 4 H1.1.5 5 141.1.6 6 141.1.7 7 Stop Q first positive  $H_1 \cdot 2 \cdot I$ 8 HI.Z.Z 9 H1.2.3 10 141.2.4 11 H1.2.5 12 13 1-11-2.7 14 15 Time. Company Sian Below Print Below 09:00 Sampled by ( Jus / Desrick 1-9-17 16:30 Relinquished by 16:30 Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to DERRIUS

# CHAIN of CUSTODY SAMPLE LOG

1700441



					NVL Batch I	Number			
	NVL Laborato			_		Number 2016-	1117		
	4708 Aurora			_	Total Samples 42				
	Seattle, WA 9	98103			Turn Around Time			10 Davs	
oject Manager	Syed Hasan				Turn Around	Time 2 Hrs	☐ 1 Day ☐ 4 D	Days	, , -
oject Location	"Cascadian A	partments" 1	5517 NE 12th S	t		<del></del>	2 Days 🗍 5 D		
	Bellevue, WA	98007 B	LDG H, Floo	r2	<b></b>	address hughw	ease call for TAT le	ss than i	24 Hrs
	(000) 574 40	20 =	(206) 257 2441			206) 979-0826	(WKCHA.OIG		
	(206) 574-12		206) 357-2441 TEM (NIOSH 7	102)		ERA) 🗌 TEM (	EPA Level II)	Other	[
Asbestos Ai							metry) TEM		
C 574		Mold Bull	16) PLM (EPA			I LIVI (LI A GIUVI	11100177		
☐ Mold/Funguare METALS ☐ Total Metals ☐ TCLP ☐ Cr 6	Det. Limit  FAA (pp  ICP (ppr	m) Matrix Air Fili Drinki	ter 🔲 Sc	oil aint Chi	RC	Arsenic (As) Barium (Ba)	☐ All 8 ☐ Chromium (C ☐ Lead (Pb) ☐ Mercury (Hg)	Co	or Metals opper (Cu) okel (Ni) nc (Zn)
Other Types	Fiberglas	107	ce Dust 🔲 Oth	er (Spe	eclfy)		-		
of Analysis Condition of Pa	***************************************		jed (no spillage)	☐ Sev	vere damage	(spillage)			
					-				A/R
Seq. # Lab I			Number Comme	00	Cort N	e tive			
1 -	au	16-1117-H	2.1.0 770	Va	first pe	717.16			
2			1.9	-					
3			1.10	-					
4			.1.11						
5		The second secon	1112						_
6			.1.13						
7			11.14		7				
8		+z	.2.8 5 to	PA	tirst	positive			
9		H	. 2. 9						
10		Ha	2.10						
11		1/2	2.11						
12			.2.12						
13			.2.13						
14		V H	.2.14	4	1/.				
15									
	Print Belo	W.	Sian Below			Company	Date	9	Time
Sample	TO THE OWNER OF THE PARTY OF	Duride	Man	11	7-	NVL	1-9	1-17	09:00
		Durick	M-	11	7-	NVL	1-9	-17	16:30
Relinquishe	0. 4.0	F1.	11/100	-		Not	1-4	1-17	16:30
Receive			Mure						
Analyze									
Results Calle								-	
Results Faxe									
Special Instru Results report		ss requested i	n writing, all samp		be disposed	of two (2) week	s after analysis.		

## CHAIN of CUSTODY SAMPLE LOG

1700441



p 206,547,0100 | f 206,634,1936 | www.nvllabs.com **NVL Batch Number** Client NVL Laboratories Inc Client Job Number 2016-1117 Street 4708 Aurora Ave N **Total Samples** Seattle, WA 98103 ☐ 3 Days ☐ 10 Days ☐ 4 Days 6 Hrs Turn Around Time 1 Hr Project Manager Syed Hasan 2 Hrs 🔲 1 Day Project Location "Cascadian Apartments" 15517 NE 12th St ☐ 4 Hrs ★ 2 Days ☐ 5 Days BLDG H. FLOOR 3 Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Fax: (206) 357-2441 Cell (206) 979-0826 Phone: (206) 574-1230 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other PLM (EPA Gravimetry) TEM BULK Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) Rotometer Calibration Mold/Fungus Mold Alr Mold Bulk Other Metals B IIA **RCRA Metals** All 3 Matrix Det. Limit METALS Chromium (Cr Soil 🔲 Air Filter Arsenic (As) Total Metals FAA (ppm) Copper (Cu) Lead (Pb) Paint Chips in % Barium (Ba) Drinking water ☐ TCLP ICP (ppm) Nickel (Ni) GFAA (ppb) Dust/wipe (Area) Paint Chips in crr Cadmium (Cd) Mercury (Hg) □ Cr 6 Zinc (Zn) Fiberglass Nuisance Dust Other (Specify) Other Types Silica Respirable Dust of Analysis Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Seq. # Lab ID first positive 2016-1117-113-1-15 1 2 3 4 5 6 7 Stop & First positive 8 9 10 11 12 13 14 15 Time Company Print Below 09:00 NVL Sampled by CW15 / Dertick 16:30 Relinguished by Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to DERRICK

January 11, 2017

Derrick Gallard NVL Field Services Division 4708 Aurora Ave. N. Seattle, WA 98103



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1700536.00

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Dear Mr. Gallard,

Enclosed please find test results for the 42 sample(s) submitted to our laboratory for analysis on 1/10/2017.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com Enc.: Sample Results

Lab Code: 102063-0

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002700 Client Sample #: 2016-1117-P1-1-1

Layer 1 of 1 Description: White lumpy foamy material with paint and micaceous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Synthetic foam, Paint

Cellulose 2%

Chrysotile 3%

Vermiculite

Lab ID: 17002701 Client Sample #: 2016-1117-P1-1-2 Sample Status: Not Analyzed

Lab ID: 17002702 Client Sample #: 2016-1117-P1-1-3 Sample Status: Not Analyzed

Lab ID: 17002703 Client Sample #: 2016-1117-P1-1-4 Sample Status: Not Analyzed

Lab ID: 17002704 Client Sample #: 2016-1117-P1-1-5 Sample Status: Not Analyzed

Lab ID: 17002705 Client Sample #: 2016-1117-P1-1-6 Sample Status: Not Analyzed

Lab ID: 17002706 Client Sample #: 2016-1117-P1-1-7 Sample Status: Not Analyzed

Lab ID: 17002707 Client Sample #: 2016-1117-P1-2-1

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 Layer 1 of 2 Description: White textured powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Calcareous particles, Paint Cellulose 2%

Asbestos Type: %

Chrysotile 2%

Sampled by: Client

Reviewed by: Nick Ly

Analyzed by: Lori Tseng

Date: 01/11/2017 Date: 01/11/2017

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Gypsum/Binder, Mica

Cellulose 22%

None Detected ND

Glass fibers 6%

Client Sample #: 2016-1117-P1-2-2 Lab ID: 17002708

Sample Status:

Not Analyzed

Lab ID: 17002709 Client Sample #: 2016-1117-P1-2-3 Sample Status:

Not Analyzed

Lab ID: 17002710 Client Sample #: 2016-1117-P1-2-4

Sample Status:

Not Analyzed

Lab ID: 17002711

Client Sample #: 2016-1117-P1-2-5

Sample Status:

Not Analyzed

Lab ID: 17002712

Client Sample #: 2016-1117-P1-2-6

Description: White lumpy foamy material with paint and micaceous material

Sample Status:

Not Analyzed

Lab ID: 17002713

Client Sample #: 2016-1117-P1-2-7

Sample Status:

Not Analyzed

Lab ID: 17002714

Client Sample #: 2016-1117-P2-1-8

Layer 1 of 1

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Synthetic foam, Paint

Cellulose

Chrysotile 3%

Sampled by: Client

Analyzed by: Lori Tseng

Nick Ly, Technical Director

Reviewed by: Nick Ly

Date: 01/11/2017 Date: 01/11/2017

4708 Aurora Ave N, Seattle, WA 98103

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## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

	Vermiculite		
Lab ID: 17002715	Client Sample #: 2016-1117-P2-1	-9 Sample Status	: Not Analyzed
Lab ID: 17002716	Client Sample #: 2016-1117-P2-1	-10 Sample Status	: Not Analyzed
Lab ID: 17002717	Client Sample #: 2016-1117-P2-1	-11 Sample Status	: Not Analyzed
Lab ID: 17002718	Client Sample #: 2016-1117-P2-1	-12 Sample Status	: Not Analyzed
Lab ID: 17002719	Client Sample #: 2016-1117-P2-1	-13 Sample Status	: Not Analyzed
Lab ID: 17002720	Client Sample #: 2016-1117-P2-1	-14 Sample Status	: Not Analyzed
Lab ID: 17002721 Location: "Cascadian /	Client Sample #: 2016-1117-P2-2-Apartments" 15517 NE 12th St. Bellevue, \		
Layer 1 of 2 Desc	ription: White textured powdery material w	vith paint	
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
Cal	careous particles, Paint, Binder/Filler	Cellulose 2%	Chrysotile 2%
Layer 2 of 2 Desc	ription: White chalky material with paper		*
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Binder/Filler, Gypsum/Binder	Cellulose 26%	None Detected ND

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

The said

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

			1
Lab ID: 17002723	Client Sample #: 2016-1117-P2-2-10	Sample Status:	Not Analyzed
Lab ID: 17002724	Client Sample #: 2016-1117-P2-2-11	Sample Status:	Not Analyzed
Lab ID: 17002725	Client Sample #: 2016-1117-P2-2-12	Sample Status:	Not Analyzed
Lab ID: 17002726	Client Sample #: 2016-1117-P2-2-13	Sample Status:	Not Analyzed
Lab ID: 17002727	Client Sample #: 2016-1117-P2-2-14	Sample Status:	Not Analyzed
Lab ID: 17002728 Location: "Cascadian A	Client Sample #: 2016-1117-P3-1-15  Apartments" 15517 NE 12th St. Bellevue, WA 98007		
Layer 1 of 1 Descr	ription: White lumpy foamy material with paint and m		
Layer 1 of 1 Descr	ription: White lumpy foamy material with paint and m		
Layer 1 of 1 Descr	ription: White lumpy foamy material with paint and m		
Layer 1 of 1 Descr	ription: White lumpy foamy material with paint and m Non-Fibrous Materials: Other F	ibrous Materials:%	
	ription: White lumpy foamy material with paint and m Non-Fibrous Materials: Other F Binder/Filler, Vermiculite, Paint	ibrous Materials:%	Chrysotile 3%
Lab ID: 17002729	ription: White lumpy foamy material with paint and m Non-Fibrous Materials: Other F Binder/Filler, Vermiculite, Paint Synthetic foam	ribrous Materials:% As Cellulose 3%	Chrysotile 3%  Not Analyzed
Lab ID: 17002729 Lab ID: 17002730	ription: White lumpy foamy material with paint and m  Non-Fibrous Materials: Other F  Binder/Filler, Vermiculite, Paint  Synthetic foam  Client Sample #: 2016-1117-P3-1-16	ribrous Materials:% As Cellulose 3%  Sample Status:	Not Analyzed
Lab ID: 17002729 Lab ID: 17002730	ription: White lumpy foamy material with paint and m Non-Fibrous Materials: Other F Binder/Filler, Vermiculite, Paint Synthetic foam  Client Sample #: 2016-1117-P3-1-16  Client Sample #: 2016-1117-P3-1-17	Sample Status:  Sample Status:	Not Analyzed
Lab ID: 17002729  Lab ID: 17002730  Lab ID: 17002731	ription: White lumpy foamy material with paint and m Non-Fibrous Materials: Other F Binder/Filler, Vermiculite, Paint Synthetic foam  Client Sample #: 2016-1117-P3-1-16  Client Sample #: 2016-1117-P3-1-17	Sample Status:  Sample Status:	Not Analyzed  Not Analyzed  Not Analyzed

4708 Aurora Ave N, Seattle, WA 98103

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## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002732	Client Sample #: 2016-1117-P3-1-	19 Sample Status	s: Not Analyzed
Lab ID: 17002733	Client Sample #: 2016-1117-P3-1-	20 Sample Status	s: Not Analyzed
Lab ID: 17002734	Client Sample #: 2016-1117-P3-1-	21 Sample Status	s: Not Analyzed
Lab ID: 17002735 Location: "Cascadian A	Client Sample #: 2016-1117-P3-2-partments" 15517 NE 12th St. Bellevue, V		-
Layer 1 of 2 Descr	iption: White textured powdery material w	ith layered paint	
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
Calcareous	particles, Binder/Filler, Paint/Binder	Cellulose 29%	Chrysotile 2%
Layer 2 of 2 Descri	iption: White chalky material with paper		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Binder/Filler, Gypsum/Binder	Cellulose 31%	None Detected ND
Lab ID: 17002736	Client Sample #: 2016-1117-P3-2-	16 Sample Status	: Not Analyzed
Lab ID: 17002737	Client Sample #: 2016-1117-P3-2-	17 Sample Status	: Not Analyzed
Lab ID: 17002738	Client Sample #: 2016-1117-P3-2-	18 Sample Status	s: Not Analyzed

Sampled by: Client

Lab ID: 17002739

Analyzed by: Lori Tseng Reviewed by: Nick Ly

Date: 01/11/2017 Date: 01/11/2017

Nick Ly, Technical Director

**Not Analyzed** 

Sample Status:

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL

Client Sample #: 2016-1117-P3-2-19

Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

4708 Aurora Ave N, Seattle, WA 98103

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## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700536.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002740

Client Sample #: 2016-1117-P3-2-20

Sample Status:

Not Analyzed

Lab ID: 17002741

Client Sample #: 2016-1117-P3-2-21

Sample Status:

Not Analyzed

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

Nick Ly, Technical Director

#### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

Item Code ASB-02

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Cell (425) 985-1253

Compan	y NVL Field Services Division	NVL Batch I	Number	1700536	6.00
Addres	s 4708 Aurora Ave. N.	TAT 2 Day	/S		AH No
	Seattle, WA 98103	Rush TAT			
Project Manage	r Mr. Derrick Gallard	Due Date	1/12/201	7 Time	4:15 PM
Phon	e (206) 547-0100	Email derric	ck.g@nvlla	abs.com	

EPA 600/R-93-116 Asbestos by PLM <bulk>

Project Name/Number: 2016-1117
Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007
Subcategory PLM Bulk

Fax (206) 634-1936

Total	Number	of	Samples	42
		•		NAMES AND ADDRESS OF THE OWNER, WHEN

Rush Samples \_

	Lab ID	Sample ID	Description	A/R
1	17002700	2016-1117-P1-1-1	Stop @ First Positive	A
2	17002701	2016-1117-P1-1-2		A
3	17002702	2016-1117-P1-1-3		A
4	17002703	2016-1117-P1-1-4		Α
.5	17002704	2016-1117-P1-1-5		A
6	17002705	2016-1117-P1-1-6		A
7	17002706	2016-1117-P1-1-7		A
8	17002707	2016-1117-P1-2-1		A
9	17002708	2016-1117-P1-2-2		A
10	17002709	2016-1117-P1-2-3		Α
11	17002710	2016-1117-P1-2-4		A
12	17002711	2016-1117-P1-2-5		A
13	17002712	2016-1117-P1-2-6		Α
14	17002713	2016-1117-P1-2-7		A
15	17002714	2016-1117-P2-1-8		Α
16	17002715	2016-1117-P2-1-9		A
17	17002716	2016-1117-P2-1-10		Α
18	17002717	2016-1117-P2-1-11		. A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				19
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/10/17	1615
Analyzed by	Lori Tseng		NVL	1/11/17	
Results Called by					
🗌 Faxed 🔲 Emailed					
Special Stop (Instructions:	@ First Positive				

Date: 1/10/2017 Time: 4:17 PM Entered By: Umer Khan

#### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

1700536.00 Company NVL Field Services Division **NVL Batch Number** TAT 2 Days AH No Address 4708 Aurora Ave. N. Seattle, WA 98103 Rush TAT **Due Date** 1/12/2017 Time 4:15 PM Project Manager Mr. Derrick Gallard Email derrick.g@nvllabs.com Phone (206) 547-0100 Fax (206) 634-1936 Cell (425) 985-1253

Project Name/Number: 2016-1117		Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007
Subcategory	PLM Bulk	
Item Code	ASB-02	EPA 600/R-93-116 Asbestos by PLM <bulk></bulk>

То	tal Numbe	er of Samples4	2	Rush Samples		
	Lab ID	Sample ID	Description	A/R		
19	17002718	2016-1117-P2-1-12		A		
20	17002719	2016-1117-P2-1-13		A		
21	17002720	2016-1117-P2-1-14		A		
22	17002721	2016-1117-P2-2-8		A		
23	17002722	2016-1117-P2-2-9		A		
24	17002723	2016-1117-P2-2-10		A		
25	17002724	2016-1117-P2-2-11		A		
26	17002725	2016-1117-P2-2-12		Α		
27	17002726	2016-1117-P2-2-13		A		
28	17002727	2016-1117-P2-2-14		A		
29	17002728	2016-1117-P3-1-15		A		
30	17002729	2016-1117-P3-1-16		A		
31	17002730	2016-1117-P3-1-17		A		
32	17002731	2016-1117-P3-1-18		A		
33	17002732	2016-1117-P3-1-19		A		
34	17002733	2016-1117-P3-1-20		A		
35	17002734	2016-1117-P3-1-21		A		
36	17002735	2016-1117-P3-2-15		A		

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/10/17	1615
Analyzed by	Lori Tseng		NVL	1/11/17	
Results Called by					
Faxed Emailed					
Special Stop ( Instructions:	First Positive	×			

Date: 1/10/2017 Time: 4:17 PM Entered By: Umer Khan

## ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Company	NVL Field Services Division	NVL Batch Number 1700536	3.00
Address	4708 Aurora Ave. N.	TAT 2 Days	AH No
	Seattle, WA 98103	Rush TAT	
Project Manager	Mr. Derrick Gallard	Due Date 1/12/2017 Time	4:15 PM
Phone	(206) 547-0100	Email derrick.g@nvllabs.com	
Cell	(425) 985-1253	Fax (206) 634-1936	

- (12)		(1.20) 000 7.200	- Lan (200) 00 1	
Project Name/Number: 2016-1117			Project Location: "Cascadian 98007	Apartments" 15517 NE 12th St. Bellevue, WA
Subc	ategory PLN	/I Bulk		
Ite	m Code ASE	3-02 EPA	600/R-93-116 Asbestos by PLM <bulk></bulk>	
То	tal Numbe	er of Samples <u>4</u>	Planting and the second and the seco	Rush Samples
	Lab ID	Sample ID	Description	A/R
37	17002736	2016-1117-P3-2-16		Α
38	17002737	2016-1117-P3-2-17		Α
39	17002738	2016-1117-P3-2-18		Α
40	17002739	2016-1117-P3-2-19		Α
41	17002740	2016-1117-P3-2-20		A
12	17002741	2016-1117-P3-2-21		Δ

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/10/17	1615
Analyzed by	Lori Tseng		NVL	1/11/17	
Results Called by					
Faxed Emailed					
Special Stop (Instructions:	First Positive		***************************************		

Date: 1/10/2017 Time: 4:17 PM

Entered By: Umer Khan

## CHAIN of CUSTODY SAMPLE LOG

1700536



p 206.547.0100 | f 206.634.1936 | www.nvllabs.com **NVL Batch Number** Client NVL Laboratories Inc. Client Job Number 2016-1117 Street 4708 Aurora Ave N **Total Samples** Seattle, WA 98103 ☐ 3 Days ☐ 10 Days Project Manager Syed Hasan 4 Days Project Location "Cascadian Apartments" 15517 NE 12th St ☐ 4 Hrs 🔀 2 Days 🗍 5 Days Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Cell (206) 979-0826 Fax: (206) 357-2441 Phone: (206) 574-1230 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK Rotometer Calibration Mold/Fungus Mold Air Mold Bulk Other Metals □All 8 **RCRA Metals** Matrix Det. Limit METALS All 3 Chromium (Cr Air Filter Arsenic (As) Soil ☐ Total Metals FAA (ppm) Copper (Cu) Barium (Ba) Lead (Pb) ☐ Paint Chips in % Drinking water ☐ TCLP ☐ ICP (ppm) Nickel (Ni) ☐ GFAA (ppb) ☐ Dust/wipe (Area) ☐ Paint Chips in cm ☐ Cadmium (Cd) ☐ Mercury (Hg) Cr 6 Zinc (Zn) Fiberglass Nuisance Dust Other (Specify) Other Types Silica Respirable Dust of Analysis Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Seq. # Lab ID Client Sample Number Comments 151 POSITIVE 2016-1117-91-1-1 STOP @ 1 P1-1-2 01-1-3 3 P1-1-4 4 - 1.5 5 6 -1-7 7 151 POSITIVE S.LOB 2016-1117-11-2-1 (1) 8 -91-2-2 9 10 -P1-2-3 11 -P1-2-4 12 -P1-2-5 -P1-2-6 13 -P1-2-7 14 15 Date Time Company Print Below Sian Below 1/10/17 4:00 NUL DERRILL Sampled by 110/17 4:15 NUL RORICL Relinquished by 111017 16:15 Umar Khan Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to

## CHAIN of CUSTODY SAMPLE LOG

1700536



p 206.547,0100 | f 206.634.1936 | www.nyllabs.com NVL Batch Number \_\_ Client NVL Laboratories Inc. Client Job Number 2016-1117 Street 4708 Aurora Ave N Total Samples Seattle, WA 98103 ☐ 3 Days ☐ 10 Days Project Manager Syed Hasan Project Location "Cascadian Apartments" 15517 NE 12th St ☐ 4 Hrs 📈 2 Days 🗌 5 Days Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Fax: (206) 357-2441 Cell (206) 979-0826 Phone: (206) 574-1230 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK ☐ Mold/Fungus ☐ Mold Air ☐ Mold Bulk Rotometer Calibration Other Metals MIA Matrix **RCRA Metals METALS** Det. Limit All 3 Chromium (Cr Air Filter Soil Arsenic (As) Total Metals FAA (ppm) Copper (Cu) ☐ Paint Chips in % Barium (Ba) Lead (Pb) TCLP Drinking water ICP (ppm) Nickel (Ni) Cr 6 Dust/wipe (Area) Paint Chips in cm Cadmium (Cd) Mercury (Hg) GFAA (ppb) Zinc (Zn) Fiberglass Nuisance Dust Other (Specify) Other Types of Analysis Sillca Resnirable Dust Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Seq. # Client Sample Number Comments Lab ID POSITIVE 0 151 2016-1117-P2-1-8 STOP 1 2 -P2-1-9 P2-1-10 3 4 P2-1-11 5 P2-1-12 6 P2-1-13 V/ P2 -1-K1 7 POSITIVE 206-117-92-2-8 STOP 13 8 9 12-2-9 10 P2-2-10 11 P2-2-11 12 12-2-12 13 P2-2-13 14 P2 -2-14 15 Date Time Company Print Below\_ Sian Below 1/10/17 9:90 NUL DERRICK Sampled by 1/10/17 4:15 NUL DERRICK Relinquished by NOI 1/10/17 16:15 mar em Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. XOR ICK Results report to

4708 Aurora Ave N, Seattle, WA 98103

#### **CHAIN of CUSTODY** SAMPLE LOG

1700536

206.547.010	0   f 206.63	4.1936   www	nvllabs.com,							U
	uont NVL	Laboratorie	s Inc				atch Number			
_		3 Aurora Ave				Client Job Number 2016-1117				
	_	ttle, WA 981				Total Samples42				
olect Mar	ager Sye					Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days				
oject Location "Cascadian Apartments" 15517 NE 12th St			12th St			J4 Hrs ☑ 2 Days				
5,001 2001	Belle	evue, WA 98	007			E	mall address	Please call fo hughw@kcha.o	r TAT less than .	24 Hrs
Pi	none: (206	5) 574-1230	Fax: (2	206) 357-	2441		cell (206) 979			
						TEM	(AHERA)	TEM (EPA Leve	el II) 🔲 Other	r
								A Gravimetry)		
Mold/F		Mold Air			tometer Ca					
METALS Total M TCLP Cr 6	letals	et. LimIt ] FAA (ppm) ] ICP (ppm) ] GFAA (ppb)	☐ Dust/w	g water ipe (Area)	☐ Paint C	hips in c	RCRA Meta Arsenic ( Barium ( Cadmiur	As) ☐ Chrom Ba) ☐ Lead (	nium (Cr A	er Metals All 3 Opper (Cu ckel (Ni) nc (Zn)
Other		] Fiberglass ] Silica	☐ Nuisand		Other (S	peclfy) _				
of Ana		e: Good			lage) 🔲 S	evere da	mage (spillage	)		
	Lab ID		it Sample I							A/F
Seq. #	Labib	- X	1117 - P			PO	151	POSITIVE		
2		2010		3-1-16	4.19	1				
3				- 1-17						
4			A CONTRACTOR OF THE PARTY OF TH	3-1-18						
5				-1-19						
6				-1-20		- 1				
7				-1-21		V				
8		7016	-1117-P3		STOP	0	151 POS	ITUE		
9		224111		-2-16		1				
10				2-17						
11			-	2-18						
12				2-19						
13			P3.	2-20			/			
14			V 03	-224			/			
15								187		
		Print Below		Sian Belov	v		Compar	ıy	Date	Time
Sa	mpled by	DERR			1			UL	1/16/17	9:00
Relinquished by OERRICK		166	6	6			100	1/16/17	4:15	
	ceived by	Umer Un	n	(Min2		The state of the s		له (	1/10/17	16:15
	alyzed by			- Fr						
	Called by								_	
	Faxed by	*								
	nstructio	ns: Unless re	equested in		I samples w		posed of two (2	2) weeks after ana	alysis.	* '

January 11, 2017

Derrick Gallard NVL Field Services Division 4708 Aurora Ave. N. Seattle, WA 98103



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1700539.00

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Dear Mr. Gallard.

Enclosed please find test results for the 42 sample(s) submitted to our laboratory for analysis on 1/10/2017.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

**1.888.NVL.LABS 1.888.(685.5227)** www.nvllabs.com Enc.: Sample Results

Lab Code: 102063-0

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002746 Client Sample #: 2016-1117-M1-1-1

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 1 Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Vermiculite

None Detected ND

Chrysotile 5%

Paint

Lab ID: 17002747	Client Sample #: 2016-1117-M1-1-2	Sample Status:	Not Analyzed

Lab ID: 17002748 Client Sample #: 2016-1117-M1-1-3 Sample Status: Not Analyzed

Lab ID: 17002749 Client Sample #: 2016-1117-M1-1-4 Sample Status: Not Analyzed

Lab ID: 17002750 Client Sample #: 2016-1117-M1-1-5 Sample Status: Not Analyzed

Lab ID: 17002751 Client Sample #: 2016-1117-M1-1-6 Sample Status: Not Analyzed

Lab ID: 17002752 Client Sample #: 2016-1117-M1-1-7 Sample Status: Not Analyzed

Lab ID: 17002753 Client Sample #: 2016-1117-M1-2-1

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

A JUST

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 2 **Description:** White thin textured powdery material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

Cellulose 1% Chrysotile 2%

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Fine particles, Gypsum/Binder, Mica

Cellulose 15%

None Detected ND

Glass fibers 4%

Lab ID: 17002754 Client Sample #: 2016-1117-M1-2-2 Sample Status:

Not Analyzed

Lab ID: 17002755

Client Sample #: 2016-1117-M1-2-3

Sample Status:

Not Analyzed

Lab ID: 17002756

Client Sample #: 2016-1117-M1-2-4

Sample Status:

Not Analyzed

Lab ID: 17002757

Client Sample #: 2016-1117-M1-2-5

Sample Status:

**Not Analyzed** 

Lab ID: 17002758

Client Sample #: 2016-1117-M1-2-6

**Sample Status:** 

**Not Analyzed** 

Lab ID: 17002759

Client Sample #: 2016-1117-M1-2-7

Sample Status:

Not Analyzed

Lab ID: 17002760

Client Sample #: 2016-1117-M2-1-8

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

4708 Aurora Ave N, Seattle, WA 98103

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## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 1

Description: White lumpy material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Vermiculite

None Detected ND

Chrysotile 5%

Lab ID: 17002761

Client Sample #: 2016-1117-M2-1-9

Sample Status:

Not Analyzed

Lab ID: 17002762

Client Sample #: 2016-1117-M2-1-10

Sample Status:

Not Analyzed

Lab ID: 17002763

Client Sample #: 2016-1117-M2-1-11

Sample Status:

Not Analyzed

Lab ID: 17002764

Client Sample #: 2016-1117-M2-1-12

Sample Status:

Not Analyzed

Client Sample #: 2016-1117-M2-1-13 Lab ID: 17002765

Sample Status:

Not Analyzed

Lab ID: 17002766

Client Sample #: 2016-1117-M2-1-14

Sample Status:

**Not Analyzed** 

Lab ID: 17002767

Client Sample #: 2016-1117-M2-2-8

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 2

Description: White thin textured powdery material with paint Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Paint

None Detected

Chrysotile 2%

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 2 of 2 Description: White chalky material with paper

Non-Fibrous Materials:

Fine particles, Gypsum/Binder, Mica

Other Fibrous Materials:%

Cellulose 18%

Asbestos Type: % None Detected ND

Glass fibers 5%

Lab ID: 17002768

Client Sample #: 2016-1117-M2-2-9

Sample Status:

**Not Analyzed** 

Lab ID: 17002769

Client Sample #: 2016-1117-M2-2-10

Sample Status:

Not Analyzed

Lab ID: 17002770

Client Sample #: 2016-1117-M2-2-11

Client Sample #: 2016-1117-M2-2-12

Client Sample #: 2016-1117-M2-2-13

Sample Status:

Sample Status:

Not Analyzed

Not Analyzed

Lab ID: 17002771

Sample Status:

Not Analyzed

Lab ID: 17002773

Lab ID: 17002772

Client Sample #: 2016-1117-M2-2-14

Sample Status:

Not Analyzed

Lab ID: 17002774

Client Sample #: 2016-1117-M3-1-15

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 1

Non-Fibrous Materials:

Description: White lumpy foamy material with paint

Other Fibrous Materials:%

Asbestos Type: %

Calcareous particles, Binder/Filler, Vermiculite

None Detected ND Chrysotile 6%

Paint

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

Nick Ly, Technical Director

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### Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Asbestos Type: %

Asbestos Type: %

None Detected ND

Chrysotile 3%

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Lab ID: 17002775 Client Sample #: 2016-1117-M3-1-16 Sample Status: **Not Analyzed** 

Lab ID: 17002776 Client Sample #: 2016-1117-M3-1-17 Sample Status: Not Analyzed

Lab ID: 17002777 Client Sample #: 2016-1117-M3-1-18 **Not Analyzed** Sample Status:

Lab ID: 17002778 Client Sample #: 2016-1117-M3-1-19 Sample Status: Not Analyzed

Client Sample #: 2016-1117-M3-1-20 Lab ID: 17002779 Sample Status: Not Analyzed

Lab ID: 17002780 Client Sample #: 2016-1117-M3-1-21 Sample Status: Not Analyzed

Lab ID: 17002781 Client Sample #: 2016-1117-M3-2-15

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Layer 1 of 2 Description: White textured powdery material with paint

Non-Fibrous Materials: Other Fibrous Materials:%

Calcareous particles, Binder/Filler, Paint Cellulose 2%

Layer 2 of 2 Description: White chalky material with paper

> Non-Fibrous Materials: Other Fibrous Materials:%

Fine particles, Gypsum/Binder, Mica Cellulose 17%

Glass fibers 4%

Lab ID: 17002782 **Not Analyzed** Client Sample #: 2016-1117-M3-2-16 Sample Status:

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk Date: 01/11/2017

Date: 01/11/2017 Reviewed by: Nick Ly Nick Ly, Technical Director

47.08 Aurora Ave N, Seattle, WA 98103

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**Bulk Asbestos Fibers Analysis** 

By Polarized Light Microscopy

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Batch #: 1700539.00

Client Project #: 2016-1117

Date Received: 1/10/2017

Samples Received: 42

Samples Analyzed: 6

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 17002783	Client Sample #: 2016-1117-M3-2-17	Sample Status:	Not Analyzed
Lab ID: 17002784	Client Sample #: 2016-1117-M3-2-18	Sample Status:	Not Analyzed
Lab ID: 17002785	Client Sample #: 2016-1117-M3-2-19	Sample Status:	Not Analyzed
Lab ID: 17002786	Client Sample #: 2016-1117-M3-2-20	Sample Status:	Not Analyzed
Lab ID: 17002787	Client Sample #: 2016-1117-M3-2-21	Sample Status:	Not Analyzed

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/11/2017

Date: 01/11/2017

antino

Nick Ly, Technical Director

### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100   1 206.634.1936   www.nvilabs.com		
Company NVL Field Services Division	NVL Batch Number	1700539.00
Address 4708 Aurora Ave N	TAT 2 Days	

Seattle, WA 98103 Rush TAT

Project Manager Mr. Derrick Gallard Due Date 1/12/2017 Time 4:15 PM

 Phone
 (206) 547-0100
 Email derrick.g@nvllabs.com

 Cell
 (425) 985-1253
 Fax
 (206) 634-1936

NO constitution Amendmental ASSAT NE ADM: On Delland

Project Name/Number: 2016-1117
Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Subcategory PLM Bulk
Item Code ASB-02
EPA 600/R-93-116 Asbestos by PLM <bul>
EPA 600/R-93-116 Asbestos by PLM <bul>

### Total Number of Samples 42

Rush Samples

AH No.

	Lab ID	Sample ID	Description	A/R
1	17002746	2016-1117-M1-1-1	Stop @ First Positive	A
2	17002747	2016-1117-M1-1-2		A
3	17002748	2016-1117-M1-1-3		Α
4	17002749	2016-1117-M1-1-4		Α
5	17002750	2016-1117-M1-1-5		Α
6	17002751	2016-1117-M1-1-6		Α
7	17002752	2016-1117-M1-1-7		Α
8	17002753	2016-1117-M1-2-1		Α
9	17002754	2016-1117-M1-2-2		Α
10	17002755	2016-1117-M1-2-3		Α
11	17002756	2016-1117-M1-2-4		Α
12	17002757	2016-1117-M1-2-5		A
13	17002758	2016-1117-M1-2-6		A
14	17002759	2016-1117-M1-2-7		Α
15	17002760	2016-1117-M2-1-8		A
16	17002761	2016-1117-M2-1-9		Α
17	17002762	2016-1117-M2-1-10		Α
18	17002763	2016-1117-M2-1-11		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/10/17	1615
Analyzed by	Nadezhda		NVL	1/11/17	
Results Called by					
Faxed Emailed					9
Special Stop (	Tirst Positive		7.11		

Date: 1/10/2017 Time: 4:32 PM Entered By: Umer Khan

### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103 p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Company	NVL Field Services Division	NVL Batch Number 1700539.00	
Address	4708 Aurora Ave. N.	TAT 2 Days	AH No
	Seattle, WA 98103	Rush TAT	
Project Manager	Mr. Derrick Gallard	Due Date 1/12/2017 Time 4:1	5 PM
Phone	(206) 547-0100	Email derrick.g@nvllabs.com	
Cell	(425) 985-1253	Fax (206) 634-1936	

Project Name/Number: 2016-1117		Project Location:	"Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007				
	ubcategory PLM Bulk  Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk></bulk>						
То	tal Numbe	er of Samples 4	2	Rush Samples			
	Lab ID	Sample ID	Description	A/F			
19	17002764	2016-1117-M2-1-12		A			
20	17002765	2016-1117-M2-1-13		A			
21	17002766	2016-1117-M2-1-14		A			
22	17002767	2016-1117-M2-2-8		A			
23	17002768	2016-1117-M2-2-9		A			
24	17002769	2016-1117-M2-2-10		A			
25	17002770	2016-1117-M2-2-11		A			
26	17002771	2016-1117-M2-2-12		A			
27	17002772	2016-1117-M2-2-13		A			
28	17002773	2016-1117-M2-2-14		A			
29	17002774	2016-1117-M3-1-15		Α			
30	17002775	2016-1117-M3-1-16		A			
31	17002776	2016-1117-M3-1-17		A			
32	17002777	2016-1117-M3-1-18		A			
33	17002778	2016-1117-M3-1-19		A			
34	17002779	2016-1117-M3-1-20		A			
35	17002780	2016-1117-M3-1-21		A			
36	17002781	2016-1117-M3-2-15		A			

	Print Name	Signature	Company	Date	Time
Sampled by	Client				-
Relinquished by	Client				1
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	1/10/17	1615
Analyzed by	Nadezhda		NVL	1/11/17	
Results Called by					19
Faxed Emailed					
Special Stop (Instructions:	@ First Positive	1		-172	×

Date: 1/10/2017 Time: 4:32 PM Entered By: Umer Khan

### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

206.547.0100 } 1206.634.1936   www.nviiabs.com	
Company NVL Field Services Division	NVL Batch Number 1700539.00
Address 4708 Aurora Ave. N.	TAT 2 Days AH No
Seattle, WA 98103	Rush TAT

Proj	ect Name/Nui	mber: 2016-1117	Project Location:	"Cascadian Apartments" 98007	15517 NE 12th St. Belle	evue, WA
Subc	ategory PLM	Bulk				
Ite	n Code ASB-	02 EPA 6	600/R-93-116 Asbestos by	PLM <bulk></bulk>		
То	tal Number	of Samples42	В-инпортамент		Rush Samples	
То	tal Number	of Samples 42	Description		Rush Samples	A/R
<b>To</b>					Rush Samples	A/R A
1	Lab ID	Sample ID			Rush Samples	
37	Lab ID 17002782	Sample ID 2016-1117-M3-2-16			Rush Samples	А
37 38	Lab ID 17002782 17002783	Sample ID 2016-1117-M3-2-16 2016-1117-M3-2-17			Rush Samples	A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan	1	NVL	1/10/17	1615
Analyzed by	Nadezhda		NVL	1/11/17	
Results Called by					
Faxed Emailed					

Date: 1/10/2017 Time: 4:32 PM Entered By: Umer Khan

42 17002787

2016-1117-M3-2-21

### NVL Laboratories, Inc. 4708 Aurora Ave N, Seattle, WA 98103

### CHAIN of CUSTODY SAMPLE LOG

1700539



p 206.547,0100 | f 206.634,1936 | www.nvllabs.com **NVL Batch Number** Client NVL Laboratories Inc Client Job Number 2016-1117 Street 4708 Aurora Ave N Total Samples Seattle, WA 98103 Turn Around Time 1 Hr 6 Hrs 3 Days Project Manager Syed Hasan Project Location "Cascadian Apartments" 15517 NE 12th St 4 Hrs 2 Days 5 Days Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Cell (206) 979-0826 Fax: (206) 357-2441 Phone: (206) 574-1230 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk 🔀 PLM (EPA/600/R-93/116) 🗌 PLM (EPA Point Count) 🔲 PLM (EPA Gravimetry) 🔲 TEM BULK Mold/Fungus Mold Air Mold Bulk Rotometer Calibration Other Metals ☐ All 8 **RCRA Metals** Matrix **METALS** Det. Limit All 3 Chromium (Cr Soil Alr Filter Arsenic (As) Total Metals FAA (ppm) Copper (Cu) Paint Chips in % Lead (Pb) Drinking water Barium (Ba) TCLP ICP (ppm) Nickel (Ni) □ Dust/wipe (Area) □ Paint Chips in cm □ Cadmium (Cd) □ Mercury (Hg) Cr 6 GFAA (ppb) Zinc (Zn) Fiberglass Nuisance Dust Other (Specify) Other Types Silica Respirable Dust of Analysis Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Seq. # Lab ID Stop at FIRST POSITIVE 2016-1117-MI-1-1 1 MIII2 M1.1.3 3 4 MI-1-4 5 6 M1.1.6 M1.1.7 7 Stop at FIRST POSITIVE 8 9 MIZZ M1.2.3 10 11 12 13 14 15 Date. Time. Print Below NYL 09:00 1-10-17 Sampled by Chris / Describe Relinquished by Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to DERR (CU)

### NVL Laboratories, Inc. 4708 Aurora Ave N, Seattle, WA 98103

### CHAIN of CUSTODY SAMPLE LOG

1700539



p 206.547.0100 | f 206.634.1936 | www.nvllabs.com **NVL Batch Number** Client NVL Laboratories Inc. Client Job Number 2016-1117 Street 4708 Aurora Ave N Total Samples Seattle, WA 98103 ☐ 6 Hrs Turn Around Time 1 1 Hr 6 Hrs 2 Hrs 1 Day 3 Days 10 Days Project Manager Syed Hasan Project Location "Cascadian Apartments" 15517 NE 12th St 🗍 4 Hrs 🗷 2 Days 🗌 5 Days Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Phone: (206) 574-1230 Cell (206) 979-0826 Fax: (206) 357-2441 Asbestos Air 🔲 PCM (NIOSH 7400) 🔲 TEM (NIOSH 7402) 🔲 TEM (AHERA) 🔲 TEM (EPA Level II) 🔲 Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK Mold/Fungus Mold Air Mold Bulk Rotometer Calibration Other Metals B IIA **RCRA Metals METALS** Det. Llmit Matrix All 3 Soil Air Filter Chromium (Cr Arsenic (As) ☐ Total Metals FAA (ppm) Copper (Cu) Paint Chips in % Barium (Ba) Lead (Pb) TCLP Drinking water ☐ ICP (ppm) ☐ Nickel (Ni) ☐ Dust/wipe (Area) ☐ Paint Chips In cm ☐ Cadmium (Cd) ☐ Mercury (Hg) Cr 6 GFAA (ppb) Zinc (Zn) Other Types Fiberglass Nuisance Dust Other (Specify) Silica Resnirable Dust of Analysis Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Seq. # Lab ID STOP AT FIRST POSITIVE 2016-1117-M2.1.8 1 M2.1.9 2 3 M21.10 4 M2:1.11 5 MZ.1.13 6 7 Stop at First Positive 8 9 10 M2.2.10 11 Ma. 2.11 12 M2. 2.12 M2.2.13 13 M2.2.14 14 15 Company Time Print Below 09:00 NVL Sampled by has Decruck 16:15 Relinquished by 16.15 Lingelen Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to

### NVL Laboratories, Inc. 4708 Aurora Ave N, Seattle, WA 98103

### CHAIN of CUSTODY SAMPLE LOG

1700539



p 206.547.0100 | f 206.634.1936 | www.nvllabs.com NVL Batch Number\_ Client NVL Laboratories Inc Client Job Number 2016-1117 Street 4708 Aurora Ave N Total Samples Seattle, WA 98103 G Hrs Turn Around Time 3 Days 10 Days Project Manager Syed Hasan 4 Days 🛚 2 Hrs 🔲 1 Day Project Location "Cascadian Apartments" 15517 NE 12th St ☐ 4 Hrs 🐼 2 Days 🗌 5 Days Bellevue, WA 98007 Please call for TAT less than 24 Hrs Email address hughw@kcha.org Fax: (206) 357-2441 Cell (206) 979-0826 Phone: (206) 574-1230 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK Mold/Fungus Mold Air Mold Bulk Rotometer Calibration Other Metals All 8 Matrix **RCRA Metals METALS** Det. Limit ☐ All 3 Chromium (Cr Soil Air Filter Arsenic (As) Total Metals FAA (ppm) Copper (Cu) ☐ Paint Chips in % Lead (Pb) Barium (Ba) TCLP Drinking water ☐ ICP (ppm) Nickel (Ni) ☐ GFAA (ppb) ☐ Dust/wipe (Area) ☐ Paint Chips in cm Cr 6 Cadmium (Cd) Mercury (Hg) Zinc (Zn) Fiberglass Nuisance Dust Other (Specify) Other Types of Analysis Silica Respirable Dust Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Seq. # Lab ID Stop @ first positive 1 2016-1117-M2.1.15 3 4 5 6 7 Stop Q first positive 8 9 10 11 12 13 14 15 Time Sampled by Relinquished by Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to 2RILK



### **Appendix C**

AHERA Certification & Laboratory Qualifications

United States Department of Commerce National Institute of Standards and Technology



# Certificate of Accreditation to ISO/IEC 17025:2005

**NVLAP LAB CODE: 102063-0** 

NVL Laboratories, Inc. Seattle, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for.

### **Asbestos Fiber Analysis**

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2016-10-01 through 2017-09-30

Effective Dates

A DA DATE

For the National Voluntary Laboratory Accreditation Program



### National Voluntary Laboratory Accreditation Program



### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

NVL Laboratories, Inc.

4708 Aurora Avenue N. Seattle, WA 98103 Mr. Nghiep Vi Ly

Phone: 206-547-0100 Fax: 206-634-1936

Email: nick.l@nvllabs.com http://www.nvllabs.com

### ASBESTOS FIBER ANALYSIS

**NVLAP LAB CODE 102063-0** 

### **Bulk Asbestos Analysis**

Code	<b>Description</b>
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

## Certificate of Completion

This is to certify that

### Derrick S. Gallard

has satisfactorily completed 24 hours of training as an

## Asbestos Building Inspector

to comply with the training requirements of TSCA Title II / 40 CFR 763 (AHERA)

Certificate # 159360



Oct 17 - 19, 2016
Date(s) of Training
Exam Score: 92 /

Expiration Date: Oct 19, 2017

ARGUS PACIFIC, INC / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC, COM

EPA Provider Certificate #1085

January 23, 2017



**Mr. Hugh Watkinson King County Housing Authority**600 Andover Park W
Seattle, WA 98188

Laboratory | Management | Training www.NVLLABS.com

Subject: Point Count Analysis (Addendum - NVL Project # 2016-1117)

@ 15517 NE 12th Street, Bellevue, WA 98007

NVL PROJECT # 2016-1117-1

Dear Mr. Hugh Watkinson,

Please find the attached laboratory results of Point Count Analysis performed on the interior drywall wall samples collected from the apartments located at the subject property.

### Building K (Wall Texture)

Sample Number	Material Description by Layer	Location	Asbestos
2016-1117-K1-2-1	Wall texture	Building K, floor 1	2.0%*
2016-1117-K2-2-8	Wall texture	Building K, floor 2	1.8%*
2016-1117-K3-2-15	Wall texture	Building K, floor 3, unit 333, bedroom, mid-wall	0.0%*
2016-1117-K3-2-16	Wall texture	Building K, floor 3	1.1%*

### Building H (Wall Texture)

Sample Number	Material Description by Layer	Location	Asbestos
2016-1117-H1-2-3	Wall texture	Building H, floor 1	1.3%*
2016-1117-H2-2-8	Wall texture	Wall texture Building H, floor 2, unit 217, foyer, mid-wall	
2016-1117-H2-2-9	Wall texture	Building H, floor 2, unit 218, bathroom, mid-wall	0.0%*
2016-1117-H2-2-10	Wall texture	Building H, floor 2, unit 219, foyer, mid-wall	0.9%*
2016-1117-H2-2-11	Wall texture	Building H, floor 2, unit 220, bathroom, mid-wall	0.0%*
2016-1117-H2-2-12	Wall texture	Building H, floor 2, unit 221, foyer, mid-wall	0.3%*

\*Point Count Analysis results as per National Emission Standards for Hazardous Air Pollutants (NESHAP) and 40 Code of Federal Regulations (CFR) Part 61.141.

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227) 4708 Aurora Avenue North | Seattle, WA 98103-6516



### **Point Count Analysis Results (continued)**

Sample Number	Material Description by Layer	Location	Asbestos
2016-1117-H2-2-13 Wall texture		Building H, floor 2, unit 222, bathroom, mid-wall	0.0%*
2016-1117-H2-2-14	Wall texture	Building H, floor 2, hallway, mid-wall	0.8%*
2016-1117-H3-2-20	Wall texture	Wall texture Building H, floor 3, unit 317, bedroom 2, ceiling	
2016-1117-H3-2-21	Wall texture	Building H, floor 3, South stairway, ceiling	0.0%*

### Building P (Wall Texture)

Sample Number	Material Description by Layer	Location	Asbestos
2016-1117-P1-2-1	Wall texture	Building P, floor 1	1.3%*
2016-1117-P2-2-8	Wall texture	Building P, floor 2	1.3%*
2016-1117-P3-2-15	Wall texture	Building P, floor 3, unit 331, kitchen, mid-wall	0.1%*
2016-1117-P3-2-16	Wall texture	Building P, floor 3, unit 332, foyer, mid-wall	0.3%*
2016-1117-P3-2-17	Wall texture	Building P, floor 3, unit 333, kitchen, mid-wall	0.5%*
2016-1117-P3-2-18	Wall texture	Building P, floor 3, unit 334, bathroom, mid-wall	0.0%*
2016-1117-P3-2-19	Wall texture	Building P, floor 3, unit 335, bathroom, mid-wall	0.0%*
2016-1117-P3-2-20	Wall texture	Building P, floor 3, unit 336, foyer, mid-wall	
2016-1117-P3-2-21	Wall texture	Building P, floor 3, hallway, mid-wall	0.0%*

\*Point Count Analysis results as per National Emission Standards for Hazardous Air Pollutants (NESHAP) and 40 Code of Federal Regulations (CFR) Part 61.141.

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### **Point Count Analysis Results (continued)**

### Building M (Wall Texture)

Sample Number	Material Description by Layer	Location	Asbestos
2016-1117-M1-2-1	Wall texture	Wall texture Building M, floor 1, hallway, mid- wall	
2016-1117-M1-2-2	Wall texture	Building M, floor 1, hallway, mid- wall	
2016-1117-M1-2-3	Wall texture	Building M, floor 1	
2016-1117-M2-2-8	Wall texture	Building M, floor 2	1.3%*
2016-1117-M3-2-15	Wall texture	Building M, floor 3	1.5%*

<sup>\*</sup>Point Count Analysis results as per National Emission Standards for Hazardous Air Pollutants (NESHAP) and 40 Code of Federal Regulations (CFR) Part 61.141.

### **Conclusions and Recommendations**

Texture associated with the interior GWB walls throughout all three floors of buildings K and M, floor 1 of building H, and floors 1 and 2 of building P was found to be asbestos-containing through Point Count Analysis. Asbestos abatement protocols apply for any renovations or demolition.

The texture associated with the interior GWB walls on floor 3 of building P, and on floors 2 and 3 of building H was found to be less than one percent asbestos containing through point count analysis. Therefore asbestos abatement protocols are not required for these floors.

Please refer to the survey report # 2016-1117 for Labor and Industries regulatory requirements for materials containing <1% asbestos.

Feel free to contact me at (206) 547-0100 if you have any questions or concerns or for any of your hazardous materials needs.

Prepared By

**Christopher Gaither** 

AHERA Building Inspector AHERA Certification: # 160154

Expiration Date: December 07, 2017

Attachment: Laboratory Analysis Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)

January 20, 2017



Derrick Gallard **NVL Field Services Division**4708 Aurora Ave. N.

Seattle, WA 98103

RE: Bulk Asbestos Fiber Concentration by Point Count NVL Batch # 1700957

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 Bldg. K

Dear Mr. Gallard,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R -93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

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### **PLM** Point Count



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004689 Client Sample #: 2016-1117-K1-2-1

Sample Description: White compacted powdery material with paint - layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM).

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 3 % in Layer 1. Corresponding Lab ID 17002184

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	1	49	50
4	2	48	50
5	0	50	50
6	2	48	50
7	1	49	50
8	1	49	50
Total	8	392	400

Conclusion: This Sample Contains 2.0 % ASBESTOS

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004690 Client Samo

Client Sample #: 2016-1117-K1-2-2

Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**

### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004691 Client Sample #: 2016-1117-K1-2-3

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

(Mins)

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004692 Client Sample #: 2016-1117-K1-2-4

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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Nick Ly, Technical Director

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004693 Client Sample #: 2016-1117-K1-2-5

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004694 Client Sample #: 2016-1117-K1-2-6

Sample Not Analyzed

Asbestos Point	Non Asbestos Point	Points Counted
		Asbestos Asbestos

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004695 Client Sample #: 2016-1117-K1-2-7

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

### PLM Point Count



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004696 Client Sample #: 2016-1117-K2-2-8

Sample Description: White compacted powdery material with paint - layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002198

		Non	Total
Prep	Asbestos	Asbestos	Points
Slide #	Point	Point	Counted
1	0	50	50
2	1	49	50
3	1	49	50
4	1	49	50
5	1	49	50
6	1	49	50
7	2	48	50
8	0	50	50
Total	7	393	400

Conclusion: This Sample Contains 1.8 % ASBESTOS

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004697 Client Sample #: 2016-1117-K2-2-9

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points  Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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Nick Ly, Technical Director

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### **PLM Point Count**

### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004698 Client Sample #: 2016-1117-K2-2-10

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004699 Client Sample #: 2016-1117-K2-2-11

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### **PLM Point Count**

### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004700 Client Sample #: 2016-1117-K2-2-12

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004701 Client Sample #: 2016-1117-K2-2-13

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
		1	

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### PLM Point Count



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004702 Client Sample #: 2016-1117-K2-2-14

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004703 Client Sample #: 2016-1117-K3-2-15

Sample Description: White chalky material with paper and paint - layer 1 of 1

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be ND % in Layer 1. Corresponding Lab ID 17002212

		Non	Total
Prep	Asbestos	Asbestos	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No Asbestos fibers were observed in the field view

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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### **PLM Point Count**



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004704 Client Sample #: 2016-1117-K3-2-16

Sample Description: White thin compacted powdery material with paint - layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM).

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002213

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	2	48	50
3	0	50	50
4	1	49	50
5	0	50	50
6	0	50	50
7	1	49	50
8	1	99	100
Total	5	445	450

Conclusion: This Sample Contains 1.1 % ASBESTOS

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### **PLM Point Count**

### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004705 Client Sample #: 2016-1117-K3-2-17

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Many D

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

Lab ID: 17004706

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### **PLM** Point Count



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Client Sample #: 2016-1117-K3-2-18

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4 Method: EPA/600R-93/116

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
	-	1	

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### **PLM** Point Count



### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004707 Client Sample #: 2016-1117-K3-2-19

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

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### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004708 Client Sample #: 2016-1117-K3-2-20

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Man S

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. K

Batch #: 1700957.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 4

Method: EPA/600R-93/116

Lab ID: 17004709 Client Sample #: 2016-1117-K3-2-21

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Jacob Laugeson

Reviewed by: Nick Ly

Date: 01/19/2017

Date: 01/20/2017

Nick Ly, Technical Director

### ASBESTOS LABORATORY SERVICES



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1700957.00 Company NVL Field Services Division **NVL Batch Number** Address 4708 Aurora Ave. N. TAT 2 Days AH No Seattle, WA 98103 Rush TAT Project Manager Mr. Derrick Gallard **Due Date** 1/20/2017 9:00 AM Time Phone (206) 547-0100 Email derrick.g@nvllabs.com Cell (425) 985-1253 (206) 634-1936

Project Name	e/Number: 2016-111	Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 Bldg. K	
Subcategory F	PLM Bulk		
Item Code	ASB-03	EPA 600/R-93-116 Asbestos by PLM (400 points) <bul></bul>	

#### Total Number of Samples 21 Rush Samples .... Lab ID Sample ID Description A/R 17004689 2016-1117-K1-2-1 Stop @ 1st Pos. Α 2 17004690 2016-1117-K1-2-2 Α 17004691 \*\*\* 3 2016-1117-K1-2-3 Α 17004692 4 2016-1117-K1-2-4 \*\*\* Α 5 17004693 2016-1117-K1-2-5 \*\*\* Α 6 17004694 2016-1117-K1-2-6 \*\*\* Α 17004695 7 2016-1117-K1-2-7 Α 17004696 8 2016-1117-K2-2-8 Stop @ 1st Pos. Α 9 17004697 2016-1117-K2-2-9 Α 17004698 10 2016-1117-K2-2-10 Α 17004699 2016-1117-K2-2-11 11 Α \*\*\* 12 17004700 2016-1117-K2-2-12 Α \*\*\* 13 17004701 2016-1117-K2-2-13 Α 17004702 2016-1117-K2-2-14 \*\*\* 14 Α 17004703 2016-1117-K3-2-15 15 Stop @ 1st Pos. Α 16 17004704 2016-1117-K3-2-16 \*\*\* Α 17 17004705 2016-1117-K3-2-17 Α 17004706 18 2016-1117-K3-2-18 Α

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	1/18/17	900
Analyzed by	Jacob Laugeson		NVL	1/19/17	
Results Called by					
Faxed Emailed					

Date: 1/18/2017 Time: 9:20 AM

Entered By: Fatima Khan

#### ASBESTOS LABORATORY SERVICES



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1700957.00 Company NVL Field Services Division **NVL Batch Number** Address 4708 Aurora Ave. N. TAT 2 Days AH No Seattle, WA 98103 **Rush TAT** 9:00 AM Project Manager Mr. Derrick Gallard **Due Date** 1/20/2017 Time Phone (206) 547-0100 Email derrick.g@nvllabs.com

Cell (425) 985-1253 Fax (206) 634-1936

"Cascadian Apartments" 15517 NE 12th St. Bellevue, WA Project Name/Number: 2016-1117 **Project Location:** 98007 Bldg. K Subcategory PLM Bulk Item Code ASB-03 EPA 600/R-93-116 Asbestos by PLM (400 points) <bulk> Total Number of Samples 21 Rush Samples Lab ID Sample ID A/R Description 19 17004707 2016-1117-K3-2-19 Α 17004708 \*\*\* 20 2016-1117-K3-2-20 Α \*\*\* 21 17004709 2016-1117-K3-2-21

	Print Name	Signature	Company	Date	Time
Sampled by	Client				//
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	1/18/17	900
Analyzed by	Jacob Laugeson		NVL	1/19/17	
Results Called by					
Faxed Emailed					
	es originally from b	atch# 1700440			
Instructions:					

Date: 1/18/2017 Time: 9:20 AM

Entered By: Fatima Khan

#### NVL Laboratories, Inc. 4708 Aurora Ave N. Seattle, WA 98103

# CHAIN of CUSTODY SAMPLE LOG

1700957

p 206.547.0100 | f 206.634,1936 | www.nvllabs.com NVL Batch Number Client NVL Laboratories Inc Client Job Number 2016-1117 Street\_4708 Aurora Ave N Total Samples 🏖 21 Seattle, WA 98103 ☐ 3 Days ☐ 10 Days Project Manager Sved Hasan 4 Days Project Location "Cascadian Apartments" 15517 NE 12th St ☐ 4 Hrs 🔀 2 Days 🗌 5 Days Bellevue, WA 98007 - RUDG K. Please call for TAT less than 24 Hrs Email address hughw@kcha.org Cell (206) 979-0826 Phone: (206) 574-1230 Fax: (206) 357-2441 Asbestos Air PCM (NIOSH 7400) TEM (NIOSH 7402) TEM (AHERA) TEM (EPA Level II) Other Asbestos Bulk PLM (EPA/600/R-93/116) PLM (EPA Point Count) PLM (EPA Gravimetry) TEM BULK Mold/Fungus Mold Air Mold Bulk Rotometer Calibration Other Metals B IIA **RCRA Metals** Det. Limit Matrix **METALS** All 3 Soil Air Filter Chromium (Cr Arsenic (As) Total Metals FAA (ppm) Copper (Cu) Drinking water Paint Chips in % Barium (Ba) Lead (Pb) TCLP ☐ ICP (ppm) Nickel (Ni) GFAA (ppb) Dust/wipe (Area) Paint Chips in cm Cadmium (Cd) Mercury (Hg) Cr 6 Zinc (Zn) Other Types Fiberglass Nuisance Dust Other (Specify) of Analysis Silica Respirable Dust Condition of Package: Good Damaged (no spillage) Severe damage (spillage) A/R Client Sample Number Comments Seq. # Lab ID BATCHIA 1700440.00 FIRES TVE 1 2016-1117-K1-2-1 STOP B -2-2 3 -2 - 34 -2-4 5 -2-5 -2-6 6 7 -2-7 STOP & FIRST TVE 8 K2-2-8 -2-9 9 -2-10 10 -2-11 11 -2-12 12 -2-13 13 -2-14 14 15 Company Time Print Below Sian Below 9:00+N G. YL 1-10-17 DERRICK Sampled by 9:00 dn Relinquished by throthon Received by Analyzed by Results Called by Results Faxed by Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis. Results report to

### **NVL Laboratories, Inc.** 4708 Aurora Ave N, Seattle, WA 98103

# CHAIN of CUSTODY SAMPLE LOG

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January 19, 2017



Derrick Gallard **NVL Field Services Division**4708 Aurora Ave. N.

Seattle, WA 98103

Laboratory | Management | Training

RE: Bulk Asbestos Fiber Concentration by Point Count NVL Batch # 1700956

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007

Bldg. H

Dear Mr. Gallard,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R -93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely

Nick Ly, Technical Director

Enc.: Sample Results

Lab Code:102063

**1.888.NVL.LABS 1.888.(685.5227)** www.nvllabs.com NVL Laboratories, Inc. 4708 Aurora Ave N, Seattle, WA 98103 p 206.547.0100 | f 206.634.1936

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004675 Client Sample #: 2016-1117-H1-2-3

Sample Description: White thin textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 3 % in Layer 1. Corresponding Lab ID 17002228

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	1	49	50
5	0	50	50
6	1	49	50
7	1	49	50
8	1	49	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Cons)

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Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004676 Client Sample #: 2016-1117-H1-2-4

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Circ)

Nick Ly, Technical Director

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# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004677 Client Sample #: 2016-1117-H1-2-5

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Min

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004678 Client Sample #: 2016-1117-H1-2-6 Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

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# PLM Point Count

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004679 Client Sample #: 2016-1117-H1-2-7

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

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# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004680 Client Sample #: 2016-1117-H2-2-8

Sample Description: Trace white textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002240

		Non	Total
Prep	Asbestos	Asbestos	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	1	49	50
4	0	50	50
5	0	50	50
6	1	49	50
7	0	50	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

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### **PLM Point Count**



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004681 Client Sample #: 2016-1117-H2-2-9

Sample Description: White chalky material with paper and paint

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No Asbestos fibers were observed in the field view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Marine D

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004682 Client Sample #: 2016-1117-H2-2-10

Sample Description: White thin textured powdery material with paint and chalky with paper

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	1	49	50
3	0	50	50
4	1	49	50
5	0	50	50
6	0	50	50
7	1	49	50
8	1	99	100
Total	4	446	450

Conclusion: This Sample Contains 0.9 % ASBESTOS

Comments:

Chrysotile asbestos fibers observed in the field of view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004683 Client Sample #: 2016-1117-H2-2-11

Sample Description: White chalky material with paper and layered paint

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	. 0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No Asbestos fibers were observed in the field view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

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### **PLM Point Count**



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004684 Client Sample #: 2016-1117-H2-2-12

Sample Description: Trace white textured powdery material with paint and chalky with paper

Duan	Ashaataa	Non Asbestos	Total Points
•	Asbestos		
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	1	49	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Comments:

Chrysotile asbestos fibers observed in the field of view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

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# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14 Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004685 Client Sample #: 2016-1117-H2-2-13

Sample Description: White chalky material with paper and layered paint

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	. 0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No Asbestos fibers were observed in the field view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

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# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14 Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004686 Client Sample #: 2016-1117-H2-2-14

Sample Description: White thin textured powdery material with paint and chalky with paper

			Non	Total
	Prep	Asbestos	<b>Asbestos</b>	Points
10	Slide#	Point	Point	Counted
	1	1	49	50
	2	0	50	50
	3	1	49	50
	4	0	50	50
	5	0	50	50
	6	0	50	50
	7	1	49	50
	8	0	50	50
	Total	3	397	400

Conclusion: This Sample Contains 0.8 % ASBESTOS

Comments:

Chrysotile asbestos fibers observed in the field of view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004687 Client Sample #: 2016-1117-H3-2-20

Sample Description: Trace off-white compacted powdery material with layered paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1.

1. Corresponding Lab ID 17002259

		Non	Total
Prep	<b>Asbestos</b>	<b>Asbestos</b>	Points
Slide	# Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.1 % ASBESTOS

Comments:

Asbestos fibers observed in the field of view but not counted as points

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

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# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1,

Bellevue WA 98007 Bldg. H

Batch #: 1700956.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 14

Samples Analyzed: 10

Method: EPA/600R-93/116

Lab ID: 17004688 Client Sample #: 2016-1117-H3-2-21

Sample Description: White compacted powdery material with paint and chalky with paper and paint

Prep	Asbestos	Non Asbestos	Total Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No Asbestos fibers were observed in the field view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Miles

Nick Ly, Technical Director

### ASBESTOS LABORATORY SERVICES



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L	A	В	S

Company NVL Field S	Services Division	NVL Batch	Number 1	1700956	.00
Address 4708 Auror	a Ave. N.	TAT 2 Days		AH No	
Seattle, WA	A 98103	Rush TAT			
Project Manager Mr. Derrick	Gallard	Due Date	1/20/2017	Time	9:00 AM
Phone (206) 547-0	100	Email derr	ick.g@nvllal	bs.com	
Cell (425) 985-1	253	Fax (206	3) 634-1936		

**Project Location:** "Cascadian Apartments" 15517 NE 12th St Bldg. H, Floor 1, Bellevue WA 98007 Bldg. H Project Name/Number: 2016-1117 Subcategory PLM Bulk EPA 600/R-93-116 Asbestos by PLM (400 points) <bulk> Item Code ASB-03 Total Number of Samples 14 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	17004675	2016-1117-H1-2-3	**Stop at first positive	Α
2	17004676	2016-1117-H1-2-4	**	A
3	17004677	2016-1117-H1-2-5	**	Α
4	17004678	2016-1117-H1-2-6	**	A
5	17004679	2016-1117-H1-2-7	**	Α
6	17004680	2016-1117-H2-2-8	**Stop at first positive	Α
7	17004681	2016-1117-H2-2-9	**	Α
8	17004682	2016-1117-H2-2-10	##	A
9	17004683	2016-1117-H2-2-11	With	A
10	17004684	2016-1117-H2-2-12	**	A
11	17004685	2016-1117-H2-2-13	**	Α
12	17004686	2016-1117-H2-2-14	**	Α
13	17004687	2016-1117-H3-2-20	**Stop at first positive	Α
14	17004688	2016-1117-H3-2-21	**	Α

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Mychelle Bentley		NVL	1/18/17	900
Analyzed by	Nadezhda		NVL	1/18/17	
Results Called by					
Faxed Emailed					

Date: 1/18/2017 Time: 9:12 AM

Entered By: Mychelle Bentley

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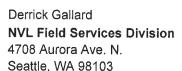
# CHAIN of CUSTODY SAMPLE LOG

1700956

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Cliont	NVI Labo	ratories Inc					tch Number				
		708.Aurora Ave N			_	Client Job Number 2016-1117					
		VA 98103			_	Total Samples 14					
roject Manager					Т	urn Ar		6 Hrs		] 10 Da	ays
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	X					Er	nail address hughw	⊋kcha.or	g		
Phone:	(206) 574	-1230 Fax:	(206) 35	7-2441			ell (206) 979-0826				
Asbestos Air		(NIOSH 7400)					(AHERA) TEM (E				-
🔀 Asbestos Bu	Ik 🗌 PLM	(EPA/600/R-93/1	16) 🔀 F	LM (EPA	Point (	Count)	☐ PLM (EPA Gravin	netry)	TEM BULK		
☐ Mold/Fungus	☐ Mold	Air 🗌 Mold Bul	k EF	Rotomete	r Calib	ration			100		
METALS  Total Metals  TCLP  Cr 6	Det. Lin	(ppm) Air Fil	ter ing water wipe (Area		int Chip		Arsenic (As)	] All 8 ] Chromic ] Lead (P ] Mercury	um (Cr Co	er Meta All 3 opper ( ickel (N nc (Zn	(Cu) Vi)
Other Types of Analysis	Fiber	•	nce Dust		er (Spec	cify)					
Condition of Pag					Seve	ere dan	nage (spillage)				
Seq. # Lab ID		Client Sample							· · · · · · · · · · · · · · · · · · ·		A/R
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8			-2-10			7					
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Analyzed		me and		P						II Ne	
Results Called											
Results Faxed											•
								8			
Special Instruc Results report to		nless requested ir	n writing, a	all sample	s will b	e dispo	sed of two (2) weeks a	after analy	sis.		

January 19, 2017





Laboratory | Management | Training

RE: Bulk Asbestos Fiber Concentration by Point Count NVL Batch # 1700958

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 Bldg. P

Dear Mr. Gallard,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R -93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

Lab Code:102063

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# PLM Point Count



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004710 Client Sample #: 2016-1117-P1-2-1

Sample Description: White textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002707

		Non	Total
Prep	Asbestos	Asbestos	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	1	49	50
4	1	49	50
5	1	49	50
6	1	49	50
7	0	50	50
8	0	50	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Men

Nick Ly, Technical Director

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# **PLM Point Count**



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004711 Client Sample #: 2016-1117-P1-2-2

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

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Nick Ly, Technical Director

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# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004712 Client Sample #: 2016-1117-P1-2-3

Sample Not Analyzed

	Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
				5
E				

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Alterna)

Nick Ly, Technical Director

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# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117 Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004713 Client Sample #: 2016-1117-P1-2-4

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
	3		

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Antino

Nick Ly, Technical Director

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# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Sample Not Analyzed

Method: EPA/600R-93/116

Lab ID: 17004714 Client Sample #: 2016-1117-P1-2-5

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Money

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Sample Not Analyzed

Samples Analyzed: 9 Method: EPA/600R-93/116

Lab ID: 17004715 Client Sample #: 2016-1117-P1-2-6

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004716 Client Sample #: 2016-1117-P1-2-7

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004717 Client Sample #: 2016-1117-P2-2-8

Sample Description: White textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM).

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002721

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	2	48	50
5	1	49	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Motor

Nick Ly, Technical Director

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### **PLM Point Count**



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004718 Client Sample #: 2016-1117-P2-2-9

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

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### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117 Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004719 Client Sample #: 2016-1117-P2-2-10

Sample Not Analyzed

Pre Slide	Asbestos Point	Non Asbesto Poin	os	Total Points Counted

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

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Nick Ly, Technical Director

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### **PLM Point Count**



# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004720 Client Sample #: 2016-1117-P2-2-11

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted	
		7		

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



#### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004721 Client Sample #: 2016-1117-P2-2-12

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted	

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



### **PLM Point Count**

# Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103
Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004722 Client Sample #: 2016-1117-P2-2-13

Sample Not Analyzed

Total Points Counted		Non Asbestos Point	Asbestos Point	Prep Slide #	
=					_

Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634,1936 | www.nvllabs.com

## **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004723 Client Sample #: 2016-1117-P2-2-14

Sample Not Analyzed

_	Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
<b>L</b>				

#### Comments:

SAMPLE NOT ANALYZED

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### PLM Point Count

#### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004724 Client Sample #: 2016-1117-P3-2-15

Sample Description: White textured powdery material with layered paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). **Introduction:** Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002735

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.1 % ASBESTOS

Comments:

Asbestos fibers observed in the field of view but not counted as points

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Miles

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nyllabs.com



#### **PLM Point Count**

#### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004725 Client Sample #: 2016-1117-P3-2-16

Sample Description: White trace textured powdery material with layered paint, Layer 1 of 2

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



#### **PLM Point Count**

## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004726 Client Sample #: 2016-1117-P3-2-17

Sample Description: White textured powdery material with layered paint, Layer 1 of 2

Prep	Asbestos	Non Asbestos Point	Total Points Counted
Slide #	Point	-11	
1	11	49	50
2	0	50	50
3	1	49	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Miles

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004727 Client Sample #: 2016-1117-P3-2-18

Sample Description: White chalky material with layered paint and paper

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No textured powdery material detected in this sample

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Miles

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM** Point Count



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004728 Client Sample #: 2016-1117-P3-2-19

Sample Description: White chalky material with paper and layered paint

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No textured powdery material detected in this sample

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM** Point Count



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004729 Client Sample #: 2016-1117-P3-2-20

Sample Description: White textured powdery material with layered paint, Layer 1 of 2

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



#### **PLM Point Count**

#### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N. Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. P

Batch #: 1700958.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 9

Method: EPA/600R-93/116

Lab ID: 17004730 Client Sample #: 2016-1117-P3-2-21

Sample Description: White chalky material with paper and layered paint

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.0 % ASBESTOS

Comments:

No textured powdery material detected in this sample.

Sampled by: Client

Analyzed by: Lori Tseng

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

#### ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvilabs.com

Company NVL Field Services Division	NVL Batch Number 1700958.00
Address 4708 Aurora Ave. N.	TAT 2 Days AH No
Seattle, WA 98103	Rush TAT
Project Manager Mr. Derrick Gallard	Due Date 1/20/2017 Time 9:00 AM
Phone (206) 547-0100	Email derrick.g@nvllabs.com
Cell (425) 985-1253	Fax (206) 634-1936

by PLM (400 points) <bulk></bulk>
S

To	tal Numbe	er of Samples2	1	Rush Samples
	Lab ID	Sample ID	Description	A/R
1	17004710	2016-1117-P1-2-1	**Stop at first positive	Α
2	17004711	2016-1117-P1-2-2	**	A
3	17004712	2016-1117-P1-2-3	**	A
4	17004713	2016-1117-P1-2-4	**	A
5	17004714	2016-1117-P1-2-5	**	A
6	17004715	2016-1117-P1-2-6	**	A
7	17004716	2016-1117-P1-2-7	**	A
8	17004717	2016-1117-P2-2-8	**Stop at first positive	A
9	17004718	2016-1117-P2-2-9	**	A
10	17004719	2016-1117-P2-2-10	**	A
11	17004720	2016-1117-P2-2-11	**	A
12	17004721	2016-1117-P2-2-12	**	A
13	17004722	2016-1117-P2-2-13	**	Α
14	17004723	2016-1117-P2-2-14	**	A
15	17004724	2016-1117-P3-2-15	**Stop at first positive	A
16	17004725	2016-1117-P3-2-16	**	A
17	17004726	2016-1117-P3-2-17	**	A
18	17004727	2016-1117-P3-2-18	**	A

	Print Name	Signature	Company	Date	Time *
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Mychelle Bentley		NVL	1/18/17	900
Analyzed by	Lori Tseng		NVL	1/18/17	
Results Called by					
Faxed Emailed					

Date: 1/18/2017 Time: 9:22 AM

Entered By: Mychelle Bentley

#### ASBESTOS LABORATORY SERVICES

(206) 634-1936



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Cell (425) 985-1253

Company	NVL Field Services Division	NVL Batch Number	1700958.0	00
Address	4708 Aurora Ave. N.	TAT 2 Days		AH No
	Seattle, WA 98103	Rush TAT		
Project Manager	Mr. Derrick Gallard	<b>Due Date</b> 1/20/20	17 Time	9:00 AM
Phone	(206) 547-0100	Email derrick.g@nvi	labs.com	

Project Name/Number: 2016-1117 Project Locat		Project Location:	"Cascadian Apartments" 15517 98007 Bldg. P	NE 12th St. Bellevue, WA	
Subca	ategory PLM	/I Bulk			
lter	n Code ASE	3-03 EPA	600/R-93-116 Asbestos by	PLM (400 points) <bulk></bulk>	
То	tal Numbe	er of Samples 2			Rush Samples
	Lab ID	Sample ID	Description		A/R
19	17004728	2016-1117-P3-2-19	**		A
20	17004729	2016-1117-P3-2-20	**		A
21	17004730	2016-1117-P3-2-21	**		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Mychelle Bentley		NVL	1/18/17	900
Analyzed by	Lori Tseng		NVL	1/18/17	_
Results Called by					
Faxed Emailed					

Date: 1/18/2017 Time: 9:22 AM

Entered By: Mychelle Bentley

4708 Aurora Ave N, Seattle, WA 98103

# CHAIN of CUSTODY SAMPLE LOG

1700958



Clie	nt NVL Labo	oratories Inc			NVL Batch		117		
		t 4708 Aurora Ave.N		Client Job Number 2016-1117					
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	Bellevue,	WA 98007	-Bro b					TAT less than	24 Hrs
	1000\ F7		(000) 05	7.0444		address <u>hughw@</u>	vkcna.or	<u>g</u>	
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						PLM (EPA Gravim	ietry) [_	] TEM DOCK	
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Other Typ of Analysi		· —	ance Dust pirable Dust		ipecify)				
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Relinquish Receiv Analyz									
Relinquish Receiv	ed by								

# **NVL Laboratories, Inc.** 4708 Aurora Ave N, Seattle, WA 98103

# CHAIN of CUSTODY SAMPLE LOG

1	7	0	0	9	5	8
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S

		34,1936   www.nviiabs.co	m		NVL Batch No	ımher			
	Client NVI	L Laboratories Inc			Client Job No		6-1117		
	Street 470	8 Aurora Ave N							
	Sea	ittle, WA 98103				mples 41	F1011-	□ 0 Davis ["	7 40 Davis
roject Ma	nager Sve	d Hasan			Turn Around	Time 🗀 1 Hr		☐ 3 Days ☐ ☐ 4 Days	] 10 Days
roiect Loc	cation "Ca	scadian Apartments"	15517 NE	E 12th St_			's 🔏 2 Days		
	Bel	levue, WA 98007 -	BLO P-				Please call for		24 Hrs
							nw@kcha.org	1	
F	hone: (20	6) 574-1230 Fax:	(206) 35	7-2441		06) 979-082			
		PCM (NIOSH 7400)							
Asbes	stos Bulk	] PLM (EPA/600/R-93/	/116) 🗌 F	LM (EPA Poir	nt Count) 🔲 P	LM (EPA Gra	avimetry)	TEM BULK	
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METALS Total! TCLP Cr 6 Other	Metals [	GFAA (ppb) Dust	king water Wwipe (Area ance Dust irable Dust	a) Paint C	hips in % Aihips in crr C.	A Metals rsenic (As) arium (Ba) admium (Cd	All 8 Chromiu Lead (Pl Mercury	im (Cr Co b) Ni	AII 3 opper (Ci ckel (Ni) nc (Zn)
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Relino	quished by	*		14		¥		1/18/17	
	eceived by	11 11 16 11	V	395		NVL		1-18-17	9:00
	nalyzed by		/	/		N			
	Called by								2
	s Faxed by								- B
Special		ons: Unless requested	in writing,	all samples w	ill be disposed o	f two (2) wee	eks after analy	rsis.	F)

January 19, 2017



Laboratory | Management | Training

Derrick Gallard

NVL Field Services Division

4708 Aurora Ave. N.

Seattle, WA 98103

RE: Bulk Asbestos Fiber Concentration by Point Count NVL Batch # 1700954

Client Project: 2016-1117

Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007 Bldg. M

Dear Mr. Gallard,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R -93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

Lab Code:102063

47.08 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004654 Client Sample #: 2016-1117-M1-2-1

Sample Description: White thin textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM).

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002753

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	1	49	50
5	0	50	50
6	1	49	50
7	1	49	50
8	0	100	100
Total	4	446	450

Conclusion: This Sample Contains 0.9 % ASBESTOS

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Money

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206,547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017 Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004655 Client Sample #: 2016-1117-M1-2-2

Sample Description: Trace white textured powdery material with paint, chalky with paper

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.1 % ASBESTOS

Comments: Chrysotile asbestos fibers observed in the field of view but not counted as points

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Men

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004656 Client Sample #: 2016-1117-M1-2-3

Sample Description: White textured powdery material with paint, chalky with paper

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
1	1	49	50
2	0	50	50
3	1	49	50
4	1	49	50
5	0	50	50
6	1	49	50
7	0	50	50
8	1	49	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Comments:

Chrysotile asbestos fibers observed in the field of view

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5 Method: EPA/600R-93/116

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Sample Not Analyzed

Lab ID: 17004657 Client Sample #: 2016-1117-M1-2-4

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
	=		
	1		

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Mary)

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### PLM Point Count

# NVD.

## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004658 Client Sample #: 2016-1117-M1-2-5

Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

James S

Nick Ly, Technical Director

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4708 Aurora Ave N, Seattle, WA 98103

Lab ID: 17004659

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 5

Sample Not Analyzed

Method: EPA/600R-93/116

Client Sample #: 2016-1117-M1-2-6

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

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Nick Ly, Technical Director

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#### **PLM Point Count**

#### Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004660 Client Samp

Client Sample #: 2016-1117-M1-2-7

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Many

Nick Ly, Technical Director

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/i16

Lab ID: 17004661 Client Sample #: 2016-1117-M2-2-8

Sample Description: White thin textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM).

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 2 % in Layer 1. Corresponding Lab ID 17002767

		Non	Total
Prep	Asbestos	<b>Asbestos</b>	Points
Slide #	Point	Point	Counted
11	0	50	50
2	1	49	50
3	1	49	50
4	1	49	50
5	0	50	50
6	1	49	50
7	1	49	50
8	0	50	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

After

Nick Ly, Technical Director

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004662 Client Sample #: 2016-1117-M2-2-9

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Men

Nick Ly, Technical Director

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## PLM Point Count



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 5

Sample Not Analyzed

Method: EPA/600R-93/116

Lab ID: 17004663 Client Sample #: 2016-1117-M2-2-10

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nts	Point Count	Non Asbestos Point	Asbestos Point	Prep Slide #

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

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Lab ID: 17004664

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg, M

Batch #: 1700954.00

Client Project #: 2016-1117 Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Client Sample #: 2016-1117-M2-2-11 Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Motors

Nick Ly, Technical Director

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017 Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004665 Client Sample #: 2016-1117-M2-2-12

Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Points Counted
		<u> </u>	

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004666 Client Sample #: 2016-1117-M2-2-13

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

antino

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

Lab ID: 17004667

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Client Sample #: 2016-1117-M2-2-14

Bldg, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 5

Method: EPA/600R-93/116

Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mino

Nick Ly, Technical Director

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bida, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004668

Client Sample #: 2016-1117-M3-2-15

Sample Description: White textured powdery material with paint, Layer 1 of 2

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM)

Introduction: Asbestos fibers were observed and quantity was determined using calibrated visual area estimation.

Asbestos content was originally found to be 3 % in Layer 1. Corresponding Lab ID 17002781

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	0	50	50
5	1	49	50
6	2	48	50
7	1	49	50
8	1	49	50
Total	6	394	400

Conclusion: This Sample Contains 1.5 % ASBESTOS

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Men

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

Lab ID: 17004669

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21 Samples Analyzed: 5

Method: EPA/600R-93/116

Client Sample #: 2016-1117-M3-2-16 Sample Not Analyzed

Prep Slide#	Asbestos Point	Non Asbestos Point	Total Points Counted
	_	1	

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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## PLM Point Count



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017 Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004670 Client Sample #: 2016-1117-M3-2-17

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
		-1	

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Meno

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### **PLM Point Count**

## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Sample Not Analyzed

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004671 Client Sample #: 2016-1117-M3-2-18

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Mary)

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### **PLM Point Count**



## Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Bldg. N

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004672 Client Sample #: 2016-1117-M3-2-19

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted		

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Mens

Nick Ly, Technical Director

4708 Aurora Ave N, Seattle, WA 98103

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#### **PLM Point Count**



## **Bulk Asbestos Fibers Analysis**

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle, WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5

Method: EPA/600R-93/116

Lab ID: 17004673 Client Sample #: 2016-1117-M3-2-20

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Points Counted

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

Meno

Nick Ly, Technical Director

Lab ID: 17004674

4708 Aurora Ave N, Seattle, WA 98103

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# nt Count



# PLM Point Count Bulk Asbestos Fibers Analysis

Client: NVL Field Services Division

Address: 4708 Aurora Ave. N.

Seattle. WA 98103

Attention: Mr. Derrick Gallard

Project Location: "Cascadian Apartments" 15517 NE 12th St. Bellevue, WA 98007

Client Sample #: 2016-1117-M3-2-21

Blda, M

Batch #: 1700954.00

Client Project #: 2016-1117

Date Received: 1/18/2017

Samples Received: 21

Samples Analyzed: 5 Method: EPA/600R-93/116

Sample Not Analyzed

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
	_		

Sampled by: Client

Analyzed by: Nadezhda Prysyazhnyuk

Reviewed by: Nick Ly

Date: 01/18/2017

Date: 01/19/2017

(Mary)

Nick Ly, Technical Director

## ASBESTOS LABORATORY SERVICES



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4708 Aurora Ave N, Seattle, WA 98103

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Company NVL Field Services Division	NVL Batch Number 1700954.00	
Address 4708 Aurora Ave. N.	TAT 2 Days AH	No
Seattle, WA 98103	Rush TAT	
Project Manager Mr. Derrick Gallard	Due Date 1/20/2017 Time 9:00 Al	M
Phone (206) 547-0100	Email derrick.g@nvllabs.com	
Cell (425) 985-1253	Fax (206) 634-1936	

Project Name/Number: 2016-1117		ımber: 2016-1117	Project Location: "Cascadian A 98007 Bldg. I	partments" 15517 NE 12th St. Bellevue, WA M
Subc	ategory PLN	i Bulk		
lte	n Code ASB	-03 EPA	600/R-93-116 Asbestos by PLM (400 po	ints) <bulk></bulk>
То		er of Samples21		Rush Samples
	Lab ID	Sample ID	Description	A/R
1	17004654	2016-1117-M1-2-1	Stop @ 1st Pos.	A
2	17004655	2016-1117-M1-2-2	***	A
3	17004656	2016-1117-M1-2-3	***	A_
4	17004657	2016-1117-M1-2-4	***	A
5	17004658	2016-1117-M1-2-5	***	A
6	17004659	2016-1117-M1-2-6	***	A
7	17004660	2016-1117-M1-2-7	***	A
8	17004661	2016-1117-M2-2-8	Stop @ 1st Pos.	A
9	17004662	2016-1117-M2-2-9	***	A
10	17004663	2016-1117-M2-2-10	***	A
11	17004664	2016-1117-M2-2-11	***	A
12	17004665	2016-1117-M2-2-12	***	A
13	17004666	2016-1117-M2-2-13	***	A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	1/18/17	900
Analyzed by	Nadezhda		NVL	1/18/17	
Results Called by					
Faxed Emailed					

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Stop @ 1st Pos.

2016-1117-M2-2-14

2016-1117-M3-2-15

2016-1117-M3-2-16

2016-1117-M3-2-17

2016-1117-M3-2-18

Date: 1/18/2017 Time: 9:10 AM

14

17

17004667

17004670

15 17004668

16 17004669

18 17004671

Entered By: Fatima Khan

## **NVL Laboratories, Inc.** 4708 Aurora Ave N, Seattle, WA 98103

# CHAIN of CUSTODY SAMPLE LOG

1700954



206.547,0	100   f 206.6	34.1936	www.nvllabs.c	om								
	Client NVI	_ Labo	ratories Inc				Batch Numb					-
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10				-2-10	-							-
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#### **NVL Laboratories, Inc.** 4708 Aurora Ave N, Seattle, WA 98103

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ORIGINAL

#### **Lead-Based Paint Inspection Report**

"Cascadian Apartments" 15517 NE 12th Street Bellevue, WA 98007



Date Prepared October 13, 2010

Prepared for:
Mr. Hugh Watkinson
King County Housing Authority
600 Andover Park W.
Seattle, WA 98188

**NVL PROJECT # 2010-636** 

NVL Laboratories, Inc., 4708 Aurora Ave. N., Seattle, WA 98103 Phone (206) 547-0100 • Fax (206) 634-1936

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#### 1.0 SUMMARY

A lead-based paint inspection was conducted on a multi-family residential complex "Cascadian Apartments" located at 15517 NE 12th Street, Bellevue, Washington. At the request of Mr. Hugh Watkinson of King County Housing Authority, Mr. Antonio Herrera, a Washington Department of Commerce (WA-DOC) certified Lead Risk Assessor and representative of NVL Laboratories, Inc conducted this lead based paint inspection on October 11 and October 12, 2010. Tanveer Khan, a WA-DOC certified lead based paint inspector and additional representative of NVL Laboratories, assisted in the inspection on October 12, 2010.

A total of 27 apartment units, exteriors and common areas have been inspected for lead based paint to satisfy the EPA Renovation, Repair and Painting (RRP) guidelines for the evaluation and control of Lead-Based Paint hazards in multi-family housing.

Painted surfaces were evaluated with Niton XLp 300A spectrum analyzers. For this inspection two Niton analyzers were used, the serial numbers for those analyzers are 25392TR1368 and 17840NR9395. Exterior and interior living areas were evaluated for lead hazards.

The instrument was auto-calibrated just prior to testing. Immediately after a NIST reference sample was tested in triplicate. These values were averaged and found to be within the accepted limits (NIST SRM used for calibration was 1.04 +/- 0.06). Calibration check was also performed every four hours and at the end of the testing for each day/shift.

All building components facing the main entrance into each unit are labeled as Side A and increases clockwise or anti clockwise depending on the floor plan. Room equivalent (an identifiable part of a residence such as a room, house exterior, staircase, hallway, or a painted exterior area) is numbered starting as Room 1 in the entry room and increases clockwise or anticlockwise (depending on the floor plan) as indicated in Appendix B (Floor Plan).

For common areas testing, main entrances into the area (office, stairs, laundry rooms) are labeled as Side A and increases clockwise. For the exterior, all components facing "NE 12<sup>th</sup> Street" are labeled as Side A components and increases clockwise.

#### SITE DESCRIPTION

This is a 197 unit apartment complex split into 14 different structures. Of the 27 units inspected on October 11 and October 12 of 2010, 15 were one bedroom one restroom units, and 12 were two bedroom two restroom units.

The primary external components for the units are a concrete footing/foundation, and wood siding.

Windows are vinyl replacement windows with original sill/stool. There were no window casings identified on the interior of the units. Window casings were found to be present on the exterior of the buildings.

Each unit inspected is associated with one of the attached floor plans included with this report. All units include an entry area, a hallway, living room/dinette, kitchen, and at least one restroom.

The interior walls are drywall throughout. The kitchens have cabinets which may or may not be painted. The floors are carpeted in the living room, the hallway and bedrooms. There is sheet vinyl in the kitchen/dinette and restrooms.

The paint on the interior and exterior is mostly in "Fair" condition.

Please note that the following units were tested in this order for lead-based paint during this inspection.

DATE - 0	OCTOBER 11, 2010	DATE - 0	OCTOBER 12, 2010
ORDER	UNIT/AREA	ORDER	UNIT/AREA
1	OFFICE	17	UNIT D111
2	UNIT A138	18	UNIT D109
3	UNIT C142	19	UNIT F113
4	UNIT C343	20	UNIT F215
5	UNIT E350	21	UNIT H119
6	UNIT E349	22	UNIT H117
7	UNIT G354	23	UNIT K126
8	UNIT G152	24	UNIT K325
9	UNIT J355	25	UNIT P234
10	UNIT J157	26	UNIT P136
11	UNIT L360	27	UNIT M327
12	UNIT L159	28	UNIT M129
13	UNIT N366		The control of the second seco
14	UNIT N164		
15	UNIT B303		
16	UNIT B103		

#### 2. 0 FINDINGS

#### Painted Surfaces:

Paint film condition is rated Intact, Fair, or Poor according to HUD guidelines. These paint film conditions vary depending on whether their surface is an interior or exterior surface, large or small building component. The three condition ratings are described as follows:

- An "Intact" paint film has no significant evidence of paint failure.
- A "Fair" paint film has less than or equal to 10 ft² paint deterioration on large exterior components and less than or equal to 2 ft² paint deterioration on large interior components; or less than or equal to 10 percent (%) deterioration of the total surface areas of small interior and exterior components. Paint films that are in "Fair" condition have some paint failure in the form of peeling or chipping paint, chalking, or signs of friction impact. Although lead-based paint in fair condition would have some form of paint failure, it is below accepted de-minimus levels and is not considered to be an immediate hazard.
- A "Poor" paint film has more than 10 ft<sup>2</sup> deterioration on large exterior components, more than 2 ft<sup>2</sup> deterioration on large interior components and more than 10% deterioration on both interior and exterior small components.

The United States Environmental Protection Agency (EPA) and WA-DOC define LBP as the presence of Lead at or above **1.0 mg/cm<sup>2</sup>** or **0.5 % by weight** lead in paint as defined in Washington Administrative Code (WAC) 365-230.

A total of one thousand seven hundred and fifty (1750) XRF analyses (including calibration readings) were taken on the interior and exterior painted components of the subject multi-family residential property.

Out of one thousand seven hundred and twenty (1720) testing combinations within the subject dwelling, **NONE (0)** of the testing combinations tested positive for LBP, which is defined as at or above the EPA and WA-DOC threshold of 1.0 mg/cm<sup>2</sup> lead.

Appendix A contains a detailed summary of the components tested, including XRF and calibration data. All positive readings in the XRF data sheets have been highlighted in gray.

#### 3.0 LABORATORY INFORMATION

#### LABORATORY ANALYSIS OF PAINT

Paints that have inconclusive results by XRF analysis are collected and analyzed in our laboratory using Flame Atomic Absorption (FAA) or Graphite Furnace Analysis (GFA) depending upon the detection limit requirement for a given sample. Since there are no "Inconclusive" readings, no paint chip sample were collected from this site.

#### LABORATORY ACCREDITATION

AIHA-ELLAP: American Industrial Hygiene Association (AIHA) under the Environmental Lead Laboratory Accreditation Program (ELLAP). The ELLAP accreditation is required for a lab performing paint, soil or dust analysis for the presence of lead to be in compliance under EPA National Lead Laboratory Accreditation program (NLLAC)

**AIHA-IHLAP:** American Industrial Hygiene Association (AIHA) under the Industrial Hygiene Laboratory Accreditation Program (IHLAP). The IHLAP program is designed specifically for laboratories involved in analyzing samples to evaluate workplace exposure. (Cert. No. 101861).

**DOE:** Accredited by the Washington State Department of Ecology for Resource Conservation and Recovery Act (RCRA) metals analysis.

#### 4.0 CONCLUSION AND RECOMMENDATION

- Lead-based paint was <u>not discovered</u> during the lead-based paint inspection of the Cascadian Apartments complex located at 15517 NE 12th Street, Bellevue, WA 98007.
- A copy of this report must be provided to new tenants and purchasers of this property under 24 Code of Federal Regulations (CFR) Part 35 and 40 CFR Part 745. Landlords and sellers are also required to distribute an educational pamphlet to ensure that parents have the information they need to protect their children from lead-based paint hazards
- Those surfaces that do not contain lead-based paint at or above federal standards of 1.0 mg/cm<sup>2</sup> or 0.5 percent lead by weight may still pose a hazard if disturbed.
- Occupational Safety and Health Administration (OSHA) and the Department of Labor and Industries, Division of Occupational Safety and Health (DOSH) regulate worker safety and health in construction and demolition work that impacts surface films with detectable levels of lead.

#### 5.0 LIMITATIONS

This Lead-Based Paint Inspection Report has been prepared for the exclusive use of the Client named herein at the specified Site Address. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. NVL Laboratories, Inc. (NVL) accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This report is based upon and conducted in accordance with HUD Guidelines and WA-DOC rules in effect at the time of this inspection. NVL has no duty to update this report based on subsequent regulatory changes.

NVL is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. Areas not accessible at the time of the Inspection are excluded from this report. NVL also notes that the facts and conditions referenced in this report may change overtime, and that the conclusions set forth here are applicable to the facts and conditions as described at the time of this report. We believe that the conditions stated here are factual, but no guarantee is made or implied.

This document is the sole property of NVL Laboratories and the property owner, or his agent, authorizing this Inspection.

Inspected by:

Tanveer Khan

Washington DOC-certified Lead Risk Assessor

Certification #: 6110

Janvier Man

Expires on: January 13, 2013

Inspected/Prepared by:

Antonio Herrera

Washington DOC-certified Lead Risk Assessor

Certification #: 0172

Expires on: September 8th, 2011

Reviewed by:

Syed Hasan

Manager Field Services

Certification #: 0171

Expires on: December 12, 2011



# Appendix A INSTRUMENT (XRF) & CALIBRATION DATA

## NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103 Tel: 206.547.0100, Fax: 206.634.1936 1.888.NVLLABS(685.5227), www.nvllabs.com

## Calibration Check Test Results



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			Average
First Reading	Second Reading	Third Reading	
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Fourth Calibration Che	ck (if required)		
	NIST SRM		Average

NITON Serial # XLP 300A - 25392TR1368 PAINT

Inspected by: Antonio Herrera; WA / DOC Lead-Based Paint Inspector Certification # 0172 (Expires on; September 8, 2011) Site: "Cascadian Apartments" - 15517 NE 12th Street, Bellevue, WA 98007 Date: 10/11/2010 9:30AM

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# Time	10/11/2010 10:11	10/11/2010 10:11	10/11/2010 10:11	10/11/2010 10:11	10/11/2010 10:12	10/11/2010 10:12	10/11/2010 10:12	10/11/2010 10:12	10/11/2010 10:13	10/11/2010 10:13	10/11/2010 10:13	10/11/2010 10:13	10/11/2010 10:14	10/11/2010 10:14	10/11/2010 10:14	10/11/2010 10:14	10/11/2010 10:14	10/11/2010 10:18	10/11/2010 10:18	10/11/2010 10:18	10/11/2010 10:18	10/11/2010 10:18	10/11/2010 10:18	10/11/2010 10:19	10/11/2010 10:19	10/11/2010 10:19	10/11/2010 10:19	10/11/2010 10:20	10/11/2010 10:20	10/11/2010 10:20	10/11/2010 10:20	10/11/2010 10:21	10/11/2010 10:21	10/11/2010 10:21	10/11/2010 10:22	10/11/2010 10:22	10/11/2010 10:22	10/11/2010 10:22	10/11/2010 10:22
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Pbc	0	0.01	0.01	0.01	0.07	0.16	0	0	0.01	0.03	0	0	0	0.01	0.05	0	0	0	0.1	0.05	0.07	0.04	0.01	0	0	0	0.01	0.03	0.02	0	0	0	0	0.01	0.03	0.02	0.02	0	0
Results	Negative																																						
ROOM	4	4	2	2	5	ស	ស	IJ	9	9	9	9	~	_	-	<del>-</del>	<b>-</b>	-	2	7	7	7	~	ო	ო	ო	က	PORCH	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4	4
FLOOR	<del>,</del>	~	-	_	<del>-</del>	_	-	<del>-</del>	-	<b>~</b>	<del></del>	<del></del>	ന	ო	က	ო	ന	ന	က	ო	က	ო	ന	ന	က	ന	က	ო	ന	ო	က	က	က	ო	ო	ന	က	ന	ო
UNIT	C142	C343																																					
V COLOR	CLEAR	WHITE	WHITE	WHITE	WHITE	WHITE	CLEAR	CLEAR	WHITE	BEIGE	GREEN	BEIGE	BEIGE	BEIGE	WHITE																								
CONDITION COLOR	FAIR																																						
SIDE	∢	Y	∢	В	ပ	۵	ပ	ပ	∢	ပ	۵	۵	<b>B</b>	ပ	۵	¥	۷	∢	∢	മ	ပ	۵	ပ	∢	В	O	O	⋖	∢	Δ	ပ	ပ	∢	æ	ပ	Ω	O	∢	∢
SUBSTRATE	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	MOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD
COMPONENT	DOOR JAMB	CLOSET DOOR	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	CLOSET DOOR	WALL	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	WALL	PORCH RAIL	COLUMN	STRINGER	PORCH CEILING	WALL	WALL	WALL	WALL	WINDOW STOOL	DOOR	DOOR JAMB
<u>Time</u>	10/11/2010 10:23	10/11/2010 10:23	10/11/2010 10:24	10/11/2010 10:24	10/11/2010 10:24	10/11/2010 10:24	10/11/2010 10:24	10/11/2010 10:25	10/11/2010 10:25	10/11/2010 10:25	10/11/2010 10:25	10/11/2010 10:25	10/11/2010 10:28	10/11/2010 10:28	10/11/2010 10:29	10/11/2010 10:29	10/11/2010 10:29	10/11/2010 10:29	10/11/2010 10:30	10/11/2010 10:30	10/11/2010 10:30	10/11/2010 10:30	10/11/2010 10:31	10/11/2010 10:31	10/11/2010 10:31	10/11/2010 10:31	10/11/2010 10:32	10/11/2010 10:32	10/11/2010 10:32	10/11/2010 10:33	10/11/2010 10:33	10/11/2010 10:33	10/11/2010 10:34	10/11/2010 10:34	10/11/2010 10:34	10/11/2010 10:35	10/11/2010 10:35	10/11/2010 10:35	10/11/2010 10:35
#	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149

itive 0.02										ative 0																								_				Negative 0
Negative		Negative		CH Negative		CH Negative		_	Negative	Negative	Negative	Negative	Negative	Neg																								
ម ភ	ည	5	5	5	ស	9	9	9	9	-	τ	-	-	<b>~</b>	-	*	2	2	2	2	2	က	က	က	က	က	က	PORCH	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4
ന (	က	က	က	က	ന	က	ന	ന	က	က	က	က	က	က	3	က	33	3	33	က	က	က	က	က	3	33	က	က	က	က	3	3	33	က	က	က	က	ო
C343	E350																																					
WHITE	ORANGE	ORANGE	ORANGE	ORANGE	ORANGE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	BEIGE	GREEN	BEIGE	BEIGE	BEIGE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE																
FAIR																																						
∢ (	В	ပ	Ω	ပ	O	A	В	8	O	∢	В	ပ	۵	∢	4	∢	∢	B	O	۵	∢	∢	∢	В	ပ	۵	Ω	۵	В	Ω	Ω	۵	∢	മ	O	Ω	Ω	Ω
DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD									
WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	CLOSET DOOR	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	TRIM	TRIM	TRIM	TRIM	WINDOW STOOL	WALL	PORCH RAIL	PORCH SOFFIT	COLUMN	DOOR CASING	WALL	WALL	WALL	WALL	CLOSET DOOR	CLOSET SHELF
10/11/2010 10:36	10/11/2010 10:36	10/11/2010 10:36	10/11/2010 10:36	10/11/2010 10:36	10/11/2010 10:37	10/11/2010 10:37	10/11/2010 10:37	10/11/2010 10:37	10/11/2010 10:38	10/11/2010 10:42	10/11/2010 10:42	10/11/2010 10:43	10/11/2010 10:43	10/11/2010 10:43	10/11/2010 10:43	10/11/2010 10:43	10/11/2010 10:44	10/11/2010 10:45	10/11/2010 10:45	10/11/2010 10:45	10/11/2010 10:45	10/11/2010 10:45	10/11/2010 10:46	10/11/2010 10:46	10/11/2010 10:46	10/11/2010 10:46	10/11/2010 10:47	10/11/2010 10:47	10/11/2010 10:48	10/11/2010 10:48	10/11/2010 10:48	10/11/2010 10:49	10/11/2010 10:50	10/11/2010 10:50	10/11/2010 10:50	10/11/2010 10:50	10/11/2010 10:50	10/11/2010 10:51
150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188

Pbc	0	0	0	0	0	0.01	0	0	0	0.05	0.02	0.02	0.05	0	0	0.03	0.01	0.05	0.02	0	0	0	0.02	0.01	0	0.01	0	0	0	0	0	0.01	0	0.04	0	0	0.02	0.02	0.02
Results	Negative																																						
ROOM	4	4	4	5	5	rC	5	ល	5	9	9	9	9	9	9	7	7	7	7	7	7	7	2	HALL	HALL	HALL	HALL	HALL	HALL	~	~	~	~	~	~	~	7	2	2
FLOOR	က	က	က	က	က	က	က	က	ო	က	ന	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	ო
DINIT	E350	E BUILDING	E BUILDING	E BUILDING			E BUILDING	E349																															
COLOR	WHITE	GREEN	WHITE	BEIGE	BEIGE	BEIGE	BEIGE	WHITE	WHITE	WHITE	BEIGE	BEIGE	BEIGE																										
CONDITION COLOR	FAIR																																						
SIDE	∢	⋖	⋖	⋖	മ	ပ	۵	В	ш	⋖	ш	ပ	Ω	ပ	ပ	۷	<b>c</b>	ပ	Ω	ပ	ပ	⋖	Ø	¥	മ	ပ	۵	⋖	∢	⋖	മ	ပ	۵	۷	A	∢	⋖	മ	O
SUBSTRATE	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL
COMPONENT	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CABINET	CEILING	WALL	WALL	WALL	WALL	WINDOW STOOL	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL
Time	10/11/2010 10:51	10/11/2010 10:51	10/11/2010 10:51	10/11/2010 10:51	10/11/2010 10:52	10/11/2010 10:52	10/11/2010 10:52	10/11/2010 10:52	10/11/2010 10:52	10/11/2010 10:53	10/11/2010 10:53	10/11/2010 10:53	10/11/2010 10:53	10/11/2010 10:53	10/11/2010 10:54	10/11/2010 10:54	10/11/2010 10:54	10/11/2010 10:54	10/11/2010 10:54	10/11/2010 10:55	10/11/2010 10:55	10/11/2010 10:55	10/11/2010 10:55	10/11/2010 10:58	10/11/2010 10:58	10/11/2010 10:59	10/11/2010 10:59	10/11/2010 10:59	10/11/2010 10:59	10/11/2010 11:00	10/11/2010 11:01	10/11/2010 11:01	10/11/2010 11:01	10/11/2010 11:01	10/11/2010 11:01	10/11/2010 11:02	10/11/2010 11:02	10/11/2010 11:02	10/11/2010 11:02
#	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227

Pbc	0.01	0	0	0.01	0.04	0.04	0	0	0	0.02	0	0	0	0.01	0:03	0.01	0.01	0	0.01	0	0	0.01	0.01	0	0.01	0	0	0.01	0	0	0.01	0.02	0.04	0.28	0	0	0	0.05	0.01
Results	Negative																																						
ROOM	2	2	ო	က	က	ო	က	ო	PORCH	PORCH	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	4	4	5	Ð	5	ည	5	5	5	9	9	9	ဖ	9	9	7	7	7
FLOOR	ო	က	က	က	ന	ന	က	က	က	င	က	က	က	က	က	က	က	က	က	က	ო	က	ო	ო	က	က	က	ო	ო	က	က	က	က	က	က	က	က	က	က
TINO	E349																																						
COLOR	BEIGE	WHITE	BEIGE	GREEN	BEIGE	BEIGE	BEIGE	BEIGE	BLUE	BLUE	BLUE	BLUE	WHITE	WHITE	WHITE	WHITE	WHITE	PURPLE	PURPLE	PURPLE	PURPLE	WHITE	BEIGE	BEIGE	BEIGE														
CONDITION	FAIR																																						
SIDE	۵	⋖	⋖	В	ပ	Q	ပ	O	∢	മ	ш	Ω	Ω	۵	∢	<u>m</u>	ပ	Ω	∢	∢	∢	∢	ပ	∢	Ф	ပ	Ω	∢	∢	ပ	⋖	<u>aa</u>	ပ	Ω	ပ	ပ	<b>4</b>	മ	O
SUBSTRATE	DRYWALL	WOOD	DRYWALL	DRYWALL.	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL.	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL.	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL							
COMPONENT	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR JAMB	DOOR CASING	WALL	PORCH RAIL	COLUMN	WALL	PORCH CEILING	PORCH CEILING	WALL	WALE	WALL	WALL	CLOSET DOOR	DOOR	DOOR JAMB	DOOR CASING	WINDOW STOOL	WALL	WALL	WALL	WALL	D00R	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL
Time Time	10/11/2010 11:03	10/11/2010 11:03	10/11/2010 11:03	10/11/2010 11:03	10/11/2010 11:04	10/11/2010 11:04	10/11/2010 11:04	10/11/2010 11:04	10/11/2010 11:05	10/11/2010 11:05	10/11/2010 11:05	10/11/2010 11:05	10/11/2010 11:05	10/11/2010 11:06	10/11/2010 11:07	10/11/2010 11:07	10/11/2010 11:08	10/11/2010 11:08	10/11/2010 11:08	10/11/2010 11:08	10/11/2010 11:08	10/11/2010 11:09	10/11/2010 11:09	10/11/2010 11:10	10/11/2010 11:10	10/11/2010 11:10	10/11/2010 11:10	10/11/2010 11:10	10/11/2010 11:10	10/11/2010 11:11	10/11/2010 11:11	10/11/2010 11:11	10/11/2010 11:11	10/11/2010 11:12	10/11/2010 11:13	10/11/2010 11:13	10/11/2010 11:14	10/11/2010 11:14	10/11/2010 11:14
#	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266

Pbc	0	0	0	0.01	0.02	0	0.01	0	0	0	0	0	0.03	0.03	0.01	0	0	0.03	0	0	0	0.03	0.01	0.02	0	0	0	0	0	0.01	0.02	0.01	0	0	0	0	0	0	0
Results	Negative																																						
ROOM	7		7	7	<b>~</b>	₩	γ-	τ-	τ-	τ	₹	7	2	2	2	7	7	က	က	က	က	က	က	က	က	က	က	4	4	4	4	4	4	4	4	ιΩ	IJ	Ω	ιΩ
FLOOR	ო	က	ო	ო	ო	m	ო	ო	ო	က	ო	ო	က	ო	က	ო	က	ო	ന	ന	ന	ĸ	က	ო	ო	ო	ო	ო	က	က	ო	က	က	ო	ო	ო	ო	ო	ო
LIND	E349	E349	E349	E349	G354	6354	G354																																
COLOR	BEIGE	WHITE	CLEAR	WHITE	WHITE	WHITE	WHITE	BEIGE	BEIGE	BEIGE	BEIGE	GREEN	BEIGE	WHITE																									
CONDITION COLOR	FAIR																																						
SIDE	۵	ပ	O	O	∢	ш	O	۵	∢	∢	∢	∢	В	B	ပ	۵	٧	∢	മ	ပ	۵	മ	۵	۵	<b>a</b>	ш	В	A	ш	O	۵	A	۷	∢	O	∢	മ	O	Ω
SUBSTRATE	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR CASING	WALL	DOOR CASING	COLUMN	PORCH RAIL	PORCH STRINGER	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WINDOW STOOL	WALL	WALL	WALL	WALL
Time	10/11/2010 11:14	10/11/2010 11:14	10/11/2010 11:14	10/11/2010 11:15	10/11/2010 11:18	10/11/2010 11:18	10/11/2010 11:18	10/11/2010 11:18	10/11/2010 11:19	10/11/2010 11:19	10/11/2010 11:19	10/11/2010 11:20	10/11/2010 11:20	10/11/2010 11:20	10/11/2010 11:20	10/11/2010 11:20	10/11/2010 11:21	10/11/2010 11:21	10/11/2010 11:21	10/11/2010 11:21	10/11/2010 11:21	10/11/2010 11:22	10/11/2010 11:22	10/11/2010 11:22	10/11/2010 11:23	10/11/2010 11:23	10/11/2010 11:23	10/11/2010 11:25	10/11/2010 11:25	10/11/2010 11:25	10/11/2010 11:25	10/11/2010 11:26	10/11/2010 11:26	10/11/2010 11:26	10/11/2010 11:26	10/11/2010 11:27	10/11/2010 11:27	10/11/2010 11:27	10/11/2010 11:27
#	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305

Pbc	0.04	0	0	0.12	0	0.03	0.01	-0.04	0.01	0	90.0	0.03	0.02	0.05	0	0	0	0	0	0	0	0	0.01	0.01	0.03	0.03	0	0	0	0.01	0.02	0	0.01	0.01	0	0.01	0.11	0	0
Results	Negative																																						
ROOM	ß	ນ	Ŋ	9	9	9	9	9	9	9	7	7	7	7	7	7	τ-	τ	-	-	_	<b>~</b>	-	7	2	7	က	ო	က	က	က	က	4	4	4	4	4	4	4
FLOOR ROOM	ო	က	က	က	က	က	က	က	က	က	က	ო	က	က	က	က	<del></del>	<del></del>	-	<del></del>	<del>-</del>	τ	~	<b>-</b>	~	~		Ψ-	<b>-</b>	τ-	<del>-</del>	<del>-</del>	-	<del></del>	~	₩	<del></del>	₹	τ
LIND	G354	G152																																					
COLOR	WHITE	CLEAR	WHITE																																				
CONDITION COLOR	FAIR																																						
SIDE	O	മ	Φ	∢	В	O	D	O	O	⋖	∢	Ш	O	Ω	ပ	ပ	∢	ш	ပ	۵	∢	∢	∢	∢	В	ပ	∢	ω	ပ	۵	ပ	ပ	۷	В	ပ	Ω	ပ	۵	∢
SUBSTRATE	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD						
COMPONENT	WINDOW STOOL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CABINET	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	WINDOW STOOL	CLOSET DOOR	DOOR						
# Time	10/11/2010 11:28	10/11/2010 11:28	10/11/2010 11:28	10/11/2010 11:28	10/11/2010 11:29	10/11/2010 11:29	10/11/2010 11:29	10/11/2010 11:29	10/11/2010 11:29	10/11/2010 11:30	10/11/2010 11:30	10/11/2010 11:30	10/11/2010 11:30	10/11/2010 11:31	10/11/2010 11:31	10/11/2010 11:31	10/11/2010 11:33	10/11/2010 11:33	10/11/2010 11:33	10/11/2010 11:34	10/11/2010 11:34	10/11/2010 11:34	10/11/2010 11:34	10/11/2010 11:34	10/11/2010 11:35	10/11/2010 11:35	10/11/2010 11:35	10/11/2010 11:35	10/11/2010 11:36	10/11/2010 11:36	10/11/2010 11:36	10/11/2010 11:36	10/11/2010 11:37	10/11/2010 11:37	10/11/2010 11:37	10/11/2010 11:37	10/11/2010 11:37	10/11/2010 11:38	10/11/2010 11:38
#	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344

0	0	0.03	0.01	0.04	0.01	0	0	0.04	0.01	0	0	0	0.01	<del>-</del>	~	₩-	0	0	0	0	0	0	0	0.01	0	0	0.01	-0.32	0	0	0	0	0	0	0	0	0	0.01
Negative	Positive	Positive	Positive	Negative																																		
4	4	IJ	Ω	5	S	S.	2	ιΩ	9	9	9	9	9					-	~	~	₩	<del>-</del>	<del>-</del>	7	2	2	7	7	2	7	ო	ო	ო	က	က	PORCH	PORCH	PORCH
<del></del>	Ψ-	-	~	-	-	_	•		<b>~</b>	<b>~</b> -	~		-				က	က	က	ო	က	က	က	က	က	က	ന	က	က	က	ო	ო	ო	က	က	က	က	က
G152				J355	J355	1355	J355	J355	1355	J355	1355	1355	<b>J355</b>	J355	1355	J355	<b>J355</b>	1355	J355	1355	J355	J355	<b>J355</b>	J355	1355													
WHITE								WHITE	BEIGE	BEIGE	GREEN	BEIGE																										
FAIR	POOR				FAIR																																	
∢	∢	∢	М	ပ	Ω	ပ	ပ	O	⋖	മ	O	۵	۵	CALIBRATE	CALIBRATE	CALIBRATE	⋖	Ш	ပ	۵	∢	∢	⋖	⋖	മ	ပ	Ω	∢	മ	മ	∢	മ	ပ	۵	۵	ш	۵	۵
WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD				DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD
DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CEILING	WALL	WALL	WALL	CLOSET DOOR	CLOSET TRACK				WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR CASING	WALL	PORCH RAIL	PORCH STRINGER
10/11/2010 11:38	10/11/2010 11:38	10/11/2010 11:39	10/11/2010 11:39	10/11/2010 11:39	10/11/2010 11:39	10/11/2010 11:39	10/11/2010 11:39	10/11/2010 11:40	10/11/2010 11:40	10/11/2010 11:40	10/11/2010 11:40	10/11/2010 11:41	10/11/2010 11:41	10/11/2010 12:55	10/11/2010 12:56	10/11/2010 12:56	10/11/2010 13:11	10/11/2010 13:12	10/11/2010 13:12	10/11/2010 13:12	10/11/2010 13:12	10/11/2010 13:13	10/11/2010 13:13	10/11/2010 13:13	10/11/2010 13:14	10/11/2010 13:14	10/11/2010 13:14	10/11/2010 13:14	10/11/2010 13:14	10/11/2010 13:14	10/11/2010 13:15	10/11/2010 13:15	10/11/2010 13:15	10/11/2010 13:15	10/11/2010 13:16	10/11/2010 13:16	10/11/2010 13:16	10/11/2010 13:17
345	346	347	348	349	350	351	352	353	354	355	356	357	358	329	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383

Pbc	0	0	0.01	0	0	-0.15	0.01	0	0	0	0.01	0	0	0.02	0.04	0	0	0.02	0.02	0	0.02	0	0	0.03	0.01	0.05	0	0	0	0.01	0	0	0	0	0	0	0.02	0.02	0.04
Results	Negative																																						
ROOM	PORCH	4	4	4	4	4	4	4	4	Ŋ	5	5	5	5	5	5	ъ	မ	9	9	9	9	9	7	7	7	7	7	7	τ-	τ-	ν-	<del>-</del>	τ-	-	~	7	2	2
FLOOR	က	က	က	က	က	က	ന	m	ന	ო	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	<del>-</del>	<del>-</del>	-	-	τ-	-	_	-	-	~
TINO	J355	1355	J355	1355	J355	1355	J355	J355	J355	J157	1157	1157	J157	J157	1157	J157	J157	J157	J157																				
COLOR	BEIGE	WHITE																																					
CONDITION COLOR	FAIR																																						
SIDE	۵	⋖	В	O	Q	В	ပ	∢	∢	∢	B	ပ	۵	O	ပ	۵	۵	∢	Ш	O	۵	ပ	ပ	∢	മ	ပ	۵	∢	O	∢	മ	ပ	Ω	∢	∢	∢	∢	ш	O
SUBSTRATE	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL.	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL
COMPONENT	COLUMN	WALL	WALL	WALL	WALL	CLOSET DOOR	WINDOW STOOL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	CLOSET DOOR	WINDOW STOOL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	CABINET	DOOR	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL
# Time	10/11/2010 13:17	10/11/2010 13:17	10/11/2010 13:18	10/11/2010 13:18	10/11/2010 13:18	10/11/2010 13:18	10/11/2010 13:18	10/11/2010 13:19	10/11/2010 13:19	10/11/2010 13:19	10/11/2010 13:19	10/11/2010 13:20	10/11/2010 13:20	10/11/2010 13:20	10/11/2010 13:20	10/11/2010 13:20	10/11/2010 13:20	10/11/2010 13:21	10/11/2010 13:21	10/11/2010 13:21	10/11/2010 13:21	10/11/2010 13:22	10/11/2010 13:22	10/11/2010 13:22	10/11/2010 13:22	10/11/2010 13:23	10/11/2010 13:23	10/11/2010 13:23	10/11/2010 13:23	10/11/2010 13:26	10/11/2010 13:26	10/11/2010 13:26	10/11/2010 13:26	10/11/2010 13:26	10/11/2010 13:26	10/11/2010 13:27	10/11/2010 13:27	10/11/2010 13:27	10/11/2010 13:27
#	384	385	386	387	388	389	330	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	7	412	413	4.4	415	416	417	418	419	420	421	422

Pbc	0.01	0	0.01	0	0.01	0.01	0.01	0	0	0	0	0	0	0.05	0.01	0	0.02	0.08	0.07	0.09	0	0	90.0	0.01	0	0.09	0	0.02	0	0.01	0	0	0	0.02	0.25	0.03	0.03	0.01	0
Results	Negative																																						
ROOM	2	7	က	ო	က	က	က	က	4	4	4	4	4	4	4	4	5	۲Ċ	гO	5	5	5	τĊ	ις	9	9	<del>-</del>	-	-	τ-	τ-	-	-	2	2	7	7	က	ო
FLOOR	τ-	<b>v-</b>	<del></del>	<del>-</del>	<del></del>	-	-	-	~	~	~	~	<del>-</del>	₹~	<b>-</b>	•	•	~	<u>_</u>	<b>.</b>	<b>.</b>	₩.	-	-	-	۲	က	က	က	က	ო	ო	က	ო	ო	က	ო	ന	က
E	J157	J157	J157	1157	J157	1157	1157	1157	J157	1157	1157	1157	1157	L360	T360	L360	L360	L360	L360	L360	L360	1360	L360	T360	L360	L360													
COLOR	WHITE	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	WHITE																																
CONDITION COLOR	FAIR																																						
SIDE	۵	۷	۷	∢	മ	ပ	۵	ပ	∢	В	ပ	۵	ပ	മ	∢	∢	۷	മ	O	۵	ပ	ပ	O	∢	В	O	∢	В	O	۵	∀	∢	∢	∢	В	ပ	Ω	٧	മ
SUBSTRATE	DRYWALL	WOOD	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT	WALL	CABINET	WALL	TRIM	WALL	WALL	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	WINDOW STOOL	CLOSET DOOR	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CEILING	WALL	CLOSET DOOR	CLOSET DOOR	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	WALL	WALL
Time #	10/11/2010 13:27	10/11/2010 13:28	10/11/2010 13:28	10/11/2010 13:28	10/11/2010 13:28	10/11/2010 13:29	10/11/2010 13:29	10/11/2010 13:29	10/11/2010 13:30	10/11/2010 13:30	10/11/2010 13:30	10/11/2010 13:30	10/11/2010 13:30	10/11/2010 13:31	10/11/2010 13:31	10/11/2010 13:31	10/11/2010 13:32	10/11/2010 13:32	10/11/2010 13:32	10/11/2010 13:32	10/11/2010 13:32	10/11/2010 13:32	10/11/2010 13:33	10/11/2010 13:33	10/11/2010 13:33	10/11/2010 13:33	10/11/2010 13:37	10/11/2010 13:37	10/11/2010 13:37	10/11/2010 13:37	10/11/2010 13:37	10/11/2010 13:38	10/11/2010 13:38	10/11/2010 13:38	10/11/2010 13:38	10/11/2010 13:38	10/11/2010 13:39	10/11/2010 13:39	10/11/2010 13:39
#	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461

Pbc	0.02	0	0	0.02	0.01	0.03	0.03	0	0.01	0.01	0	0	0	0.02	0.03	90.0	0.01	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.03	0.02	0	0	0	0	0	0.01	0	0
Results	Negative																																						
ROOM	ന	က	က	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	S	Ŋ	ß	t3	ις	ιΩ	-	~	-	~	<del></del>	~	~	2	2	2	7	2	2	7	က	က	ო	က	ო
FLOOR	က	က	က	ო	က	က	က	ന	က	က	ന	က	က	က	ო	က	က	က	က	က	_	~		-	-	~	<del>-</del>	<del></del>	-	<del>-</del>	~	-	~	-	-	τ-	-	-	<del>-</del>
LIND	L360	T360	L360	L360	L360	L360	L360	L360	L159																														
COLOR	WHITE	WHITE	WHITE	BEIGE	GREEN	BEIGE	BEIGE	WHITE																															
CONDITION	FAIR																																						
SIDE	O	O	O	∢	O	ပ	ပ	4	83	ပ	۵	∢	∢	ပ	∢	മ	O	Ω	ပ	ပ	∢	œ	ပ	۵	∢	∢	∢	∢	В	ပ	۵	∢	മ	മ	∢	<b>a</b>	ပ	۵	۵
SUBSTRATE	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD
COMPONENT	WALL	WALL	WINDOW STOOL	WALL	PORCH RAIL	COLUMN	STRINGER	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALE	DOOR	DOOR JAMB	WALL	WALL	WALE	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	WINDOW STOOL
Time	10/11/2010 13:39	10/11/2010 13:40	10/11/2010 13:40	10/11/2010 13:40	10/11/2010 13:41	10/11/2010 13:41	10/11/2010 13:41	10/11/2010 13:42	10/11/2010 13:42	10/11/2010 13:42	10/11/2010 13:42	10/11/2010 13:43	10/11/2010 13:43	10/11/2010 13:43	10/11/2010 13:43	10/11/2010 13:44	10/11/2010 13:44	10/11/2010 13:44	10/11/2010 13:44	10/11/2010 13:44	10/11/2010 13:47	10/11/2010 13:47	10/11/2010 13:47	10/11/2010 13:48	10/11/2010 13:48	10/11/2010 13:48	10/11/2010 13:48	10/11/2010 13:49	10/11/2010 13:49	10/11/2010 13:49	10/11/2010 13:49	10/11/2010 13:49	10/11/2010 13:50	10/11/2010 13:50	10/11/2010 13:50	10/11/2010 13:50	10/11/2010 13:50	10/11/2010 13:51	10/11/2010 13:51
#	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	200

PbC	0	0.26	0.02	0.01	0	0	0	0	0	0.01	0	0.01	0	0.02	0	0.08	90.0	0	0	0.09	0.05	0.09	0.02	0	0	0.09	0.02	0	0	0	0.01	0	0.02	0.05	0	0.01	0	0	0
Results	Negative																																						
ROOM	4	4	4	4	4	4	5	S	ເວ	Ŋ	വ	5	5	9	9	9	9	တ	9	7	7	7	7	7	2	7	τ-	<b>.</b>	-	<del>-</del>	-	-	2	2	2	2	7	2	7
FLOOR	~	<del>-</del>	~	~	Ψ-	γ	Ψ-	<del>-</del>	<del></del>	<b>/-</b>	τ-	~	-	~	•	τ	~	-	~	~	<b>~</b>	τ	~	τ	-	<b>.</b>	က	m	ო	က	ო	ო	ო	ო	ო	ო	ო	ო	ო
LIND	L159	N366																																					
COLOR	WHITE																																						
CONDITION COLOR	FAIR																																						
SIDE	4	<b>c</b>	ပ	۵	∢	4	∢	Ф	ပ	۵	۵	Ω	۵	۷	В	ပ	۵	ပ	ပ	⋖	В	ပ	۵	ပ	ပ	ပ	A	ш	ပ	۵	٧	∢	⋖	മ	ပ	۵	۵	۵	∢
SUBSTRATE	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD
COMPONENT	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CEILING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CABINET
Time	10/11/2010 13:51	10/11/2010 13:52	10/11/2010 13:52	10/11/2010 13:52	10/11/2010 13:52	10/11/2010 13:52	10/11/2010 13:53	10/11/2010 13:53	10/11/2010 13:53	10/11/2010 13:53	10/11/2010 13:54	10/11/2010 13:54	10/11/2010 13:54	10/11/2010 13:54	10/11/2010 13:54	10/11/2010 13:55	10/11/2010 13:55	10/11/2010 13:55	10/11/2010 13:55	10/11/2010 13:55	10/11/2010 13:56	10/11/2010 13:56	10/11/2010 13:56	10/11/2010 13:56	10/11/2010 13:56	10/11/2010 13:56	10/11/2010 14:01	10/11/2010 14:01	10/11/2010 14:01	10/11/2010 14:01	10/11/2010 14:01	10/11/2010 14:02	10/11/2010 14:02	10/11/2010 14:02	10/11/2010 14:02	10/11/2010 14:03	10/11/2010 14:03	10/11/2010 14:03	10/11/2010 14:03
#	501	502	503	504	505	206	207	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539

PbC	0.01	0	0	0	0.02	0	0.01	0.01	0.01	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0.02	0.02	0.02	0.04	0	0	0	0.04	0.01	0	0.07	0	0	0.01	0	0.01	0
Results	Negative																																						
ROOM	က	က	က	ო	က	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	ល	ധ	ເນ	ഗ	ស	വ	ις	9	9	9	9	9	9	7	7	7	7	7	7	_	_	~	₩.
FLOOR	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	က	ო	က	ന	က	က	ო	ო	-	-	~	τ-
UNIT	N366	99EN	N366	N164	N164	N164	N164																																
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE	BEIGE	GREEN	BEIGE	BEIGE	WHITE																													
CONDITION COLOR	FAIR																																						
SIDE	Υ	മ	ပ	۵	В	۵	В	B	മ	∢	œ	ပ	Ω	Q	∢	∢	۷	മ	ပ	О	В	В	ပ	∢	മ	O	Ω	ပ	ပ	∢	В	ပ	۵	ပ	ပ	∢	В	ပ	۵
SUBSTRATE	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	PORCH RAIL	STRINGER	COLUMN	WALL	WALL	WALL	WALL	CLOSET DOOR	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL
# Time	10/11/2010 14:04	10/11/2010 14:04	10/11/2010 14:04	10/11/2010 14:04	10/11/2010 14:04	10/11/2010 14:05	10/11/2010 14:05	10/11/2010 14:05	10/11/2010 14:06	10/11/2010 14:07	10/11/2010 14:07	10/11/2010 14:07	10/11/2010 14:07	10/11/2010 14:07	10/11/2010 14:08	10/11/2010 14:08	10/11/2010 14:08	10/11/2010 14:08	10/11/2010 14:08	10/11/2010 14:09	10/11/2010 14:09	10/11/2010 14:09	10/11/2010 14:09	10/11/2010 14:10	10/11/2010 14:10	10/11/2010 14:10	10/11/2010 14:10	10/11/2010 14:10	10/11/2010 14:11	10/11/2010 14:11	10/11/2010 14:11	10/11/2010 14:11	10/11/2010 14:12	10/11/2010 14:12	10/11/2010 14:12	10/11/2010 14:14	10/11/2010 14:14	10/11/2010 14:14	10/11/2010 14:15
#	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	222	228	559	260	561	295	563	564	265	566	292	268	269	570	571	572	573	574	275	276	211	578

0.01	0.73	0.02	0	0.01	0.03	0.01	0	0	0.24	0.06	0.02	0.12	0	0	0.07	0.05	0.04	0	0	0.03	0.04	0.07	0.03	0.25	0.01	0.01	0.03	0	0.01	0.02	0.01	0.02	0.02	-0.49	0	0	0.01
Negative	Negative Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
EXTERIOR	EXTERIOR EXTERIOR	; ; ;	τ-	₹~	<del>-</del>	τ-	₩.	-	2	2	7	2	2	က	က	က	က	က	က	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	5	2	ស	5	5	ស	ល	Υ-
<del></del> +		- ო	ო	ന	က	က	ന	က	က	က	က	က	က	က	ന	က	က	က	က	ო	က	က	က	က	ო	က	3	က	က	က	က	က	က	က	က	က	τ-
C BUILDING	C BUILDING	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B303	B103
GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	BEIGE	GREEN	BEIGE	WHITE														
FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR
∢ <	∢∢	: ∢	83	O	۵	۷	٧	⋖	٧	80	O	٥	∢	٧	В	O	۵	ပ	ပ	۷	മ	ш	∢	B	ပ	۵	ပ	∢	∢	∢	ш	ပ	۵	ပ	ပ	œ	4
WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL
DOOR THRESHOLD	CARPORT SUPPORT BEAM	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR JAMB	WINDOW STOOL	WALL	PORCH RAIL	COLUMN	WALL	WALL	WALL	WALL	WINDOW STOOL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CABINET	WALL
10/11/2010 14:30			10/11/2010 14:41	10/11/2010 14:41	10/11/2010 14:41	10/11/2010 14:41	10/11/2010 14:41	10/11/2010 14:42	10/11/2010 14:42	10/11/2010 14:42	10/11/2010 14:42	10/11/2010 14:43	10/11/2010 14:43	10/11/2010 14:43	10/11/2010 14:43	10/11/2010 14:44	10/11/2010 14:44	10/11/2010 14:44	10/11/2010 14:44	10/11/2010 14:45	10/11/2010 14:45	10/11/2010 14:45	10/11/2010 14:46	10/11/2010 14:46	10/11/2010 14:46	10/11/2010 14:47	10/11/2010 14:47	10/11/2010 14:47	10/11/2010 14:47	10/11/2010 14:48	10/11/2010 14:48	10/11/2010 14:48	10/11/2010 14:48	10/11/2010 14:48	10/11/2010 14:48	10/11/2010 14:49	10/11/2010 14:51
618	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	929	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656

		ive 0.01	ive 0.01	ive 0	ive 0.01	ive 0.06	iive 0.05		live 0.04	ب	iive 0	U	live 0	_		live 0.03				_		tive 0.03					tive 0			tive 0				tive 0.01				tive 0.05
Negative	L Negative	L Negative	L Negative	L Negative	L Negative		R Negative	<b>IOR</b> Negative	10R Negative	IOR Negative	IOR Negative																											
Ψ-	<del>-</del>	<del></del>	<del></del> -	~	~	2	2	2	2	2	3	3	က	က	33	5	ß	IJ	5	5	5	HALL	HALL	HALL	HALL	HALL	HALL	STAIR	EXTERIOR	EXTERIOR	EXTERIOR	EXTERIOR						
₹	~	~	~	Ψ-	_	₹	~	•	-	~-	_	<b></b>	•	₩.	<b>~</b>	<del>-</del>	*	τ-	~	~	₹-	~	·-	-		-	-		-		-	-	-	-	<del></del>		<u></u>	<del>-</del>
B103	B BUILDING	B BUILDING							B BUILDING	B BUILDING		B BUILDING																										
WHITE	CLEAR	WHITE	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	BEIGE	BEIGE	BEIGE	BEIGE																							
FAIR	FAIR	FAIR	FAIR																																			
മ	ပ	Ω	¥	⋖	⋖	A	ш	ပ	۵	¥	¥	В	ပ	۵	ပ	¥	œ	ပ	Ω	ပ	ပ	V	ш	O	Ω	∢	∢	∢	Ф	ပ	Ω	۵	۵	ပ	4	<b>6</b>	ന	ပ
DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	MOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	METAL	METAL	WOOD	WOOD	WOOD	WOOD	WOOD
WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	WINDOW STOOL	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR JAMB	WALL	WALL	FENCE	WALL
10/11/2010 14:51	10/11/2010 14:51	10/11/2010 14:51	10/11/2010 14:51	10/11/2010 14:51	10/11/2010 14:52	10/11/2010 14:52	10/11/2010 14:52	10/11/2010 14:52	10/11/2010 14:53	10/11/2010 14:53	10/11/2010 14:53	10/11/2010 14:53	10/11/2010 14:54	10/11/2010 14:54	10/11/2010 14:54	10/11/2010 14:55	10/11/2010 14:55	10/11/2010 14:55	10/11/2010 14:55	10/11/2010 14:55	10/11/2010 14:56	10/11/2010 14:58	10/11/2010 14:58	10/11/2010 14:58	10/11/2010 14:58	10/11/2010 14:59	10/11/2010 14:59	10/11/2010 15:00	10/11/2010 15:00	10/11/2010 15:00	10/11/2010 15:01	10/11/2010 15:01	10/11/2010 15:01	10/11/2010 15:01	10/11/2010 15:02	10/11/2010 15:03	10/11/2010 15:03	10/11/2010 15:04
657	658	629	099	661	995	663	664	999	999	299	899	699	670	671	672	673	674	675	9/9	2/19	678	629	680	681	682	683	684	685	989	687	688	689	069	691	692	693	694	695

PbC	0.01	0.02	0.01	0	0.01	0	0	0	0.03	0.04	0	0	0	0.13	0	0.04	0.01	0	0	0	0.02	0	0.02	0	0	0	0	0.09	0.17	0.03	0	0.01	0.01	0.05	0.01	0.01	0	0.03	0
Results	Negative	Negative	Negative	Vegative	Negative	Negative	Negative	Negative	Vegative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negatíve	Negative	Vegative	Negative	Vegative	Vegative	Negative	Vegative	Negative						
FLOOR ROOM	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	EXTERIOR N	_	CARPORT	EXTERIOR N	_	EXTERIOR																					
FLOOR	<del></del>	Ψ-	~	<del></del>	<del></del>	<b>-</b>	<b></b>	<del></del>	~	τ-	~	•	~	•	~		•	~	~	•	T	τ	-	***	***	<del></del>	•	<u>-</u>	•	₹"	₹-	•	·	~	₹~	τ-	τ-	<del></del>	<del></del>
LIND	B BUILDING	A BUILDING	A BUILDING	E BUILDING			E BUILDING	G BUILDING		G BUILDING																													
COLOR	BEIGE	BEIGE	BEIGE	GREEN	GREEN	WHITE	WHITE	BEIGE	BEIGE	GREEN	GREEN	GREEN	GREEN	GREEN	BEIGE	GREEN	BEIGE	GREEN	BEIGE	BEIGE	GREEN	BEIGE	BEIGE	WHITE	BEIGE	GREEN	GREEN	GREEN	BEIGE	BEIGE	BEIGE	GREEN	BEIGE	BEIGE	GREEN	BEIGE	WHITE	GREEN	BEIGE
CONDITION COLOR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR														
SIDE	Ω	۷	8	<b>6</b>	ပ	ပ	ပ	ပ	۵	۵	Ω	Q	۵	Ω	۵	۵	∢	∢	∢	<b>B</b> 3	В	O	۵	۵	۵	O	۵	۵	Ω	∢	∢	∢	В	O	O	Ω	Ω	۵	۵
SUBSTRATE	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD														
COMPONENT	WALL	WALL	WALL	TRIM	TRIM	DOOR CASING	DOOR JAMB	WINDOW CASING	WALL	DOOR	DOOR CASING	DOOR THRESHOLD	STAIR RAIL	CARPORT COLUMN	CARPORT SUPPORT BEAM	CARPORT FASCIA	WALL	TRIM	FENCE	WALL	TRIM	WALL	WALL	DOOR CASING	DOOR	DOOR THRESHOLD	STAIR RAIL	COLUMN	SUPPORT BEAM	WALL	FENCE	TRIM	WALL	WALL	TRIM	WALL	DOOR CASING	DOOR THRESHOLD	DOOR
Tme	10/11/2010 15:05	10/11/2010 15:05	10/11/2010 15:06	10/11/2010 15:06	10/11/2010 15:06	10/11/2010 15:06	10/11/2010 15:07	10/11/2010 15:07	10/11/2010 15:07	10/11/2010 15:08	10/11/2010 15:08	10/11/2010 15:09	10/11/2010 15:09	10/11/2010 15:09	10/11/2010 15:10	10/11/2010 15:11	10/11/2010 15:14	10/11/2010 15:14	10/11/2010 15:15	10/11/2010 15:15	10/11/2010 15:15	10/11/2010 15:17	10/11/2010 15:17	10/11/2010 15:18	10/11/2010 15:18	10/11/2010 15:18	10/11/2010 15:18	10/11/2010 15:19	10/11/2010 15:19	10/11/2010 15:21	10/11/2010 15:22	10/11/2010 15:22	10/11/2010 15:22	10/11/2010 15:23	10/11/2010 15:24	10/11/2010 15:24	10/11/2010 15:25	10/11/2010 15:25	10/11/2010 15:25
**	969	269	698	669	700	701	702	703	704	202	902	707	208	402	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734

PbC	0	0	0	0.01	0.05	0	0	0.01	0	0.05	0.02	0	0.01	0	0	0.12	0	1.1	<del>-</del>	<del>-</del>
Results	Negative	Positive	Positive																	
ROOM	EXTERIOR	CARPORT	CARPORT	EXTERIOR	CARPORT	CARPORT														
FLOOR	_	-	<del></del>	<del></del>	<del>-</del>	~	-	-	•	~	_	<b>~</b>	<del>-</del>	<del>-</del>	<del>-</del>	_	~			
LIMI	G BUILDING	G BUILDING	G BUILDING	J BUILDING																
COLOR	GREEN	GREEN	GREEN	BEIGE	GREEN	BEIGE	BEIGE	BEIGE	BEIGE	GREEN	BEIGE	WHITE	GREEN	GREEN	BEIGE	GREEN	BEIGE			
CONDITION	FAIR																			
SIDE	۵	۵	Ω	A	A	¥	В	O	ပ	ပ	Ω	۵	۵	۵	O	۵	Ω	CALIBRATE	CALIBRATE	CALIBRATE
SUBSTRATE	WOOD																			
COMPONENT	STAIR RAIL	COLUMN	SUPPORT BEAM	WALL	TRIM	FENCE	WALL	WALL	WINDOW CASING	TRIM	WALL	DOOR CASING	DOOR THRESHOLD	STAIR RAIL	DOOR	COLUMN	SUPPORT BEAM			
Time	10/11/2010 15:25	10/11/2010 15:26	10/11/2010 15:26	10/11/2010 15:27	10/11/2010 15:28	10/11/2010 15:28	10/11/2010 15:29	10/11/2010 15:30	10/11/2010 15:30	10/11/2010 15:30	10/11/2010 15:31	10/11/2010 15:31	10/11/2010 15:31	10/11/2010 15:32	10/11/2010 15:32	10/11/2010 15:32	10/11/2010 15:33	10/11/2010 15:36	10/11/2010 15:36	10/11/2010 15:36
#	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754

### NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103 Tel: 206.547.0100, Fax: 206.634.1936 1.888.NVLLABS(685.5227), www.nvllabs.com

## Calibration Check Test Results



- 0 / 40 004			
Date: Oct 12, 201			
***************************************	ty Housing Authority		
ct Location; <u>Cascadian</u> Street	Apartment" 15517 NE. 12t	<u>. I </u>	
'L Project #: 2010-636			
Device: Niton XL 30	9 Spectrum Analyzer	XRF Serial #: <u>253</u>	92TR1368
spected by: Antonio He	rrera		
rtification #: <u>0172</u>		Inspector Signature:	
ration Date: Sep 08, 20	11	v	
NIST SRM Used		ration Check Tolerance Used	_+/- 0.06 mg
The completion one	NIST SRM		Average
First Reading	Second Reading	Third Reading	
1.0	0.9	0.8	0.93
Second Calibration	Check NIST SRM		Average
First Reading	Second Reading	Third Reading	_
1.0	1.0	1.2	1.07
Third Calibration Ch	eck (if required)		
			Average
First Reading	Second Reading	Third Reading	
1.2	1.0	1.1	7. (
Fourth Calibration Che	eck (if required)		
	NIST SRM	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Average

NITON Serial # XLP 300A - 25392TR1368

Inspected by: Antonio Herrera; WA / DOC Lead-Based Paint Inspector Certification # 0172 (Expires on; September 8, 2011) Site: "Cascadian Apartments" - 15517 NE 12th Street, Bellevue, WA 98007 Date: 10/12/2010 9:30AM PAINT

Pbc	5.14	-	6.0	6.0	0.01	0	0.01	0.01	0	0	0	0	0.01	0.01	0.05	90.0	-0.37	0	0.01	0.04	0.01	0	0.01	0	90.0	0	0.01	0.02	0	0	0	0
Results		Positive	Positive	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
ROOM					<del>-</del>	~	-	-	-	₹	-	-	2	7	7	7	7	က	က	က	ന	က	4	4	4	4	4	4	4	4	വ	2
FLOOR					~	<b>~</b>	~	τ-	τ-	Ψ-	τ-	τ	₩.	~	T	<del>,</del>	τ	₩	₩	~	~	<del>-</del>	<b>~</b>	<b>~</b>	<b>-</b>	~	<b>-</b>	<b>~</b>	~	~	<del></del>	₩
SITE					D111	D111	D111	D111	D111	D111	D111	D111	D111	D111	D111	D111	D111	D111	D111													
COLOR					WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE													
CONDITION COLOR					FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR													
SIDE	SHUTTER CAL	CALIBRATE	CALIBRATE	CALIBRATE	⋖	Ш	ပ	Ω	۵	∢	∢	∢	∢	Ш	ပ	Ω	∢	∢	œ	O	Ω	ပ	∢	B	ပ	۵	ပ	∢	∢	∢	⋖	œ
SUBSTRATE	0,				DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	MOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL
COMPONENT					WALL	WALL	WALL	WALL	CLOSET SHELF	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	WALL	WALL	WALL	WINDOW STOOL	CLOSET DOOR	DOOR	DOOR JAMB	WALL	WALL
Time	10/12/2010 9:40	10/12/2010 9:41	10/12/2010 9:41	10/12/2010 9:41	10/12/2010 10:07	10/12/2010 10:07	10/12/2010 10:07	10/12/2010 10:08	10/12/2010 10:08	10/12/2010 10:08	10/12/2010 10:08	10/12/2010 10:08	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:10				_			10/12/2010 10:11							10/12/2010 10:13
#	755	756	757	758	759	760	761	762	763	764	765	992	767	292	769	770	771	772	773	774	775	9//	777	778	779	780	781	782	783	784	785	786

Pbc	0.05	0.01	0.04	0.01	0.03	0.01	0.01	0	0	0	0.01	0	0.02	0	0	0	0.01	0.01	0	0	0.01	0.02	0.01	0	0.02	0	0.05	0.04	0.01	0.05	-0.06	0	0.01	0.02	0.02	0.01	6.0	-0.22	0
FLOOR ROOM Results PbC	Negative																																						
ROOM	വ	IJ	5	9	9	9	ပ	9	9	7	7	7	7	7	7	-	-	<b>-</b>	<del></del>	<del>-</del>	<b>-</b>	7	2	7	2	7	က	က	က	က	ന	က	ო	4	4	4	4	4	4
FLOOR	<del></del>	-	~	<b>v-</b>	<del>-</del>	<del></del>	τ	<del></del>	τ	τ-	<del></del>	<del></del>	<del></del>	<del>-</del>	_	-	_	-	~	-	-	~	τ	<b>~</b>	-	<b>~</b>	<del>-</del>	<del></del>	-	~	Ψ-	₩	<del></del>	-	<del>~~</del>	<del></del>	τ-	<del>-</del>	₩-
SITE	D111	D109																																					
COLOR	WHITE																																						
CONDITION COLOR	FAIR																																						
SIDE	O	۵	O	¥	В	ပ	۵	O	O	A	83	ပ	Ω	O	O	<b>8</b>	O	۵	∢	∢	∢	∢	8	ပ	О	O	∢	<u>co</u>	O	۵	∢	∢	ပ	⋖	മ	ပ	۵	O	O
SUBSTRATE	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD
COMPONENT	WALL	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB
# Time	10/12/2010 10:13	10/12/2010 10:13	10/12/2010 10:13	10/12/2010 10:14	10/12/2010 10:14	10/12/2010 10:14	10/12/2010 10:14	10/12/2010 10:15	10/12/2010 10:15	10/12/2010 10:15	10/12/2010 10:15	10/12/2010 10:15	10/12/2010 10:16	10/12/2010 10:16	10/12/2010 10:16	10/12/2010 10:17	10/12/2010 10:18	10/12/2010 10:18	10/12/2010 10:18	10/12/2010 10:18	10/12/2010 10:18	10/12/2010 10:19	10/12/2010 10:19	10/12/2010 10:19	10/12/2010 10:19	10/12/2010 10:20	10/12/2010 10:20	10/12/2010 10:20	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:22	10/12/2010 10:22	10/12/2010 10:22	10/12/2010 10:22	10/12/2010 10:23	10/12/2010 10:23
**	787	788	789	790	791	792	793	794	795	200	797	798	799	800	801	802	803	804	805	806	807	808	808	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825

##	Tine	COMPONENT	SUBSTRATE	SIDE	CONDITION COLOR	I COLOR	SITE	FLOOR	ROOM	Results	PbC
826	10/12/2010 10:25	WALL	DRYWALL	A	FAIR	WHITE	F113	₩.	τ-	Negative	0
827	10/12/2010 10:26	WALL	DRYWALL	В	FAIR	WHITE	F113	<del>-</del>	τ-	Negative	0
828	10/12/2010 10:26	WALL	DRYWALL	ပ	FAIR	WHITE	F113	<del></del>	τ-	Negative	0
829	10/12/2010 10:26	WALL	DRYWALL		FAIR	WHITE	F113	<del>~~</del>	<del>, '</del>	Negative	0
830	10/12/2010 10:26	DOOR	WOOD	۷	FAIR	WHITE	F113	₩	τ	Negative	0
831	10/12/2010 10:26	DOOR CASING	WOOD	٧	FAIR	WHITE	F113	<del></del>	•	Negative	0
832	10/12/2010 10:26	DOOR JAMB	WOOD	4	FAIR	WHITE	F113	<del></del>	τ-	Negative	0
833	10/12/2010 10:27	WALL	DRYWALL	٧	FAIR	GREEN	F113	γ	2	Negative	0.01
834	10/12/2010 10:27	WALL	DRYWALL	O	FAIR	GREEN	F113	<b>-</b>	2	Negative	90.0
835	10/12/2010 10:27	WALL	DRYWALL	Q	FAIR	GREEN	F113	τ-	2	Negative	0.03
836	10/12/2010 10:27	DOOR JAMB	WOOD	۵	FAIR	GREEN	F113	<del></del>	2	Negative	0
837	10/12/2010 10:28	WALL	DRYWALL	∢	FAIR	GREEN	F113	<del></del>	ო	Negative	0
838	10/12/2010 10:28	WALL	DRYWALL	ш	FAIR	GREEN	F113	τ-	က	Negative	0.02
839	10/12/2010 10:29	WALL	DRYWALL	ပ	FAIR	GREEN	F113	τ	ന	Negative	0
840	10/12/2010 10:29	WALL	DRYWALL	Ω	FAIR	GREEN	F113	·	က	Negative	0
841	10/12/2010 10:29	WINDOW STOOL	WOOD	В	FAIR	WHITE	F113	τ-	က	Negative	0.05
842	10/12/2010 10:29	DOOR CASING	WOOD	8	FAIR	WHITE	F113	τ-	က	Negative	0
843	10/12/2010 10:30	WALL	DRYWALL	۷	FAIR	YELLOW	F113	<del></del>	4	Negative	0
844	10/12/2010 10:30	WALL	DRYWALL	В	FAIR	YELLOW	F113	τ-	4	Negative	0
845	10/12/2010 10:30	WALL	DRYWALL	ပ	FAIR	YELLOW	F113	<del>,-</del>	4	Negative	0
846	10/12/2010 10:30	WALL	DRYWALL	Ω	FAIR	YELLOW	F113	<b>-</b>	4	Negative	0
847	10/12/2010 10:31	DOOR	WOOD	∢	FAIR	WHITE	F113	<del>-</del>	4	Negative	0
848	10/12/2010 10:31	DOOR JAMB	WOOD	∢	FAIR	WHITE	F113	<b>4-</b> -	4	Negative	0
840	10/12/2010 10:31	DOOR CASING	WOOD	∢	FAIR	WHITE	F113	<del></del>	4	Negative	0
820	10/12/2010 10:31	WINDOW STOOL	WOOD	O	FAIR	WHITE	F113	<del>-</del>	4	Negative	0.01
851	10/12/2010 10:32	WALL	DRYWALL	∢	FAIR	WHITE	F113	-	ഹ	Negative	0
852	10/12/2010 10:32	WALL	DRYWALL	മ	FAIR	WHITE	F113	<del>,-</del> -	ເດ	Negative	0
853	10/12/2010 10:32	WALL	DRYWALL	ပ	FAIR	PINK	F113	Υ-	ល	Negative	0
854	10/12/2010 10:32	WALL	DRYWALL	Ω	FAIR	PINK	F113	<del></del>	Ŋ	Negative	0
855	10/12/2010 10:33	DOOR	WOOD	മ	FAIR	WHITE	F113	<del></del>	ιĊ	Negative	0
856	10/12/2010 10:33	DOOR JAMB	WOOD	œ	FAIR	WHITE	F113	<del></del>	ιΩ	Negative	0
857	10/12/2010 10:33	WALL	DRYWALL	∢	FAIR	BLUE	F113	<del>-</del>	9	Negative	0.01
828	10/12/2010 10:33	WALL	DRYWALL	Ф	FAIR	BLUE	F113	<del>-</del>	9	Negative	9.0
859	10/12/2010 10:34	WALL	DRYWALL	O	FAIR	BLUE	F113	Ψ-	9	Negative	0.01
860	10/12/2010 10:34	WALL	DRYWALL	Ω	FAIR	WHITE	F113	<del></del>	9	Negative	0.04
861	10/12/2010 10:34	DOOR	WOOD	O	FAIR	WHITE	F113	₩	9	Negative	0
862	10/12/2010 10:34	DOOR JAMB	WOOD	ပ	FAIR	WHITE	F113	<b>-</b>	9	Negative	0
863	10/12/2010 10:35	WALL	DRYWALL	∢	FAIR	WHITE	F113	<del>-</del>	7	Negative	0
864	10/12/2010 10:35	WALL	DRYWALL	മ	FAIR	WHITE	F113	~	2	Negative	0.21

Pbc	0.01	0	0.01	0	0	0	0	0	0	0.01	0.02	0	0.08	0.03	0	0.01	0	0.03	0	0.01	0	0	0.02	90.0	0.01	0	0	0.02	0	0	0	0	0.03	0.14	0	0	0	0	0.01
Results	Negative																																						
ROOM	7	7	7	7	-	-	-	_	•	<u>-</u>	2	7	2	7	2	က	ന	က	က	PORCH	PORCH	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	ស	5	2	ເດ	2	വ	IJ	~
FLOOR	τ-	<del>-</del>	<b>.</b>	•	7	7	7	2	2	2	7	7	7	7	7	2	7	2	7	8	2	2	2	7	2	2	2	7	2	7	2	7	2	2	2	2	7	2	₩.
SITE	F113	F113	F113	F113	F215	H119																																	
V COLOR	WHITE	BEIGE	BEIGE	GREEN	GREEN	BEIGE	WHITE	GREEN																															
CONDITION COLOR	FAIR																																						
SIDE	ပ	Ω	O	O	ш	O	۵	۷	⋖	⋖	∢	മ	ပ	۵	∢	∢	മ	ပ	O	∢	В	O	O	A	∢	۵	ပ	Ω	∢	∢	O	∢	മ	O	۵	O	ပ	ပ	ш
SUBSTRATE	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL
COMPONENT SUBSTRATE	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	WALL	WALL	PORCH RAIL	FASCIA	WINDOW CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CEILING	WALL
# #	10/12/2010 10:35	10/12/2010 10:35	10/12/2010 10:35	10/12/2010 10:36	10/12/2010 10:37	10/12/2010 10:37	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:39	10/12/2010 10:39	10/12/2010 10:39	10/12/2010 10:39	10/12/2010 10:39	10/12/2010 10:40	10/12/2010 10:40	10/12/2010 10:41	10/12/2010 10:41	10/12/2010 10:41	10/12/2010 10:41	10/12/2010 10:42	10/12/2010 10:42	10/12/2010 10:43	10/12/2010 10:43	10/12/2010 10:43	10/12/2010 10:43	10/12/2010 10:43	10/12/2010 10:43	10/12/2010 10:44	10/12/2010 10:44	10/12/2010 10:44	10/12/2010 10:44	10/12/2010 10:45	10/12/2010 10:45	10/12/2010 10:45	10/12/2010 10:52
*	865	998	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	882	886	887	20 G	688	890	891	882	S 6	894	C C C	896	897	828	886	300	901	305	903

Pbc	C	0.01	0	0	0	0.11	0.05	0	0.09	0	0	0.01	0	0	0	0.01	0.01	0.01	0	0	0	0	0.05	0.01	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.7	0	0.01
Results	Negative																																						
ROOM	<del></del>	· <del></del>	<del></del>	<del></del>	₹~	7	7	7	2	က	က	ო	က	က	4	4	4	4	4	4	ល	ß	Ŋ	ເວ	5	ß	9	9	<del></del>	τ-	τ-	<b>*</b> -	τ-	₹-	2	7	7	2	7
FLOOR ROOM	<del>-</del>	. —	<del></del>	<del></del>	<del></del>	<del>-</del>	<b>~</b>	_	~	<del>-</del>	<del></del>	Υ-	<del></del>	-	-	<del></del>	<del></del>	-	-	<del>-</del>	<del>-</del>	ν-	<del></del>	<del></del>	-	-	<del>-</del>	<del></del>	<del></del>	<del></del>	<del>-</del>	<b>~</b>	<del></del>	<del>-</del>	<b>-</b>	τ-	<del>-</del>	<del>-</del>	₩
SITE	H119	H117																																					
COLOR	GREEN	GREEN	WHITE	GREEN	GREEN	WHITE	PINK	PINK	PINK	PINK	WHITE																												
CONDITION COLOR	FAIR																																						
SIDE	O	۵	∢	∢	۷	∢	В	ပ	O	∢	В	ပ	۵	O	∢	മ	O	Ω	∢	⋖	⋖	Ф	O	Ω	O	O	ပ	O	∢	മ	O	۵	∢	∢	∢	മ	O	Ω	∢
SUBSTRATE	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD							
COMPONENT	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CLOSET DOOR	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	CABINET							
# Time	10/12/2010 10:52	10/12/2010 10:52	10/12/2010 10:53	10/12/2010 10:53	10/12/2010 10:53	10/12/2010 10:53	10/12/2010 10:53	10/12/2010 10:54	10/12/2010 10:54	10/12/2010 10:54	10/12/2010 10:54	10/12/2010 10:55	10/12/2010 10:55	10/12/2010 10:55	10/12/2010 10:56	10/12/2010 10:56	10/12/2010 10:56	10/12/2010 10:56	10/12/2010 10:57	10/12/2010 10:57	10/12/2010 10:57	10/12/2010 10:57	10/12/2010 10:58	10/12/2010 10:58	10/12/2010 10:58	10/12/2010 10:58	10/12/2010 10:59	10/12/2010 10:59	10/12/2010 11:01	10/12/2010 11:01	10/12/2010 11:01	10/12/2010 11:01	10/12/2010 11:02	10/12/2010 11:02	10/12/2010 11:03	10/12/2010 11:03	10/12/2010 11:03	10/12/2010 11:04	10/12/2010 11:04
#	904	902	906	206	806	606	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	636	940	941	942

NVL PROJECT # 2010-627

Pbc	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0.01	0	0	0	0	0.4	0	0	0	0.04	0.07	0.03	0.04	0	0.01	0.01	0.01	0.01	0.01	0	0	0	0	0	0.03
Results	Negative																																						
FLOOR ROOM	2	7	က	က	က	က	က	ო	4	4	4	4	4	4	4	വ	ഹ	ťΩ	IJ	വ	ις	ιΩ	ß	9	မ	9	9	9	9	7	7	7	7	7	7	-	•	-	~
FLOOR	₩	<del>-</del>	-	-	-	_	-	<del>, -</del>	•	-	τ	_	-	~	~-	-	-	<b>~</b>	<del>-</del>	~	Ψ-	<b>←</b>	•	-	<b>₹</b>	~	<del></del>	<del></del>	-	<b>7</b>	<del></del>	<b>~</b>	<b>-</b>	₩	Υ-	<del></del>	τ-	~	~
SITE	H117	K126	K126	K126	K126																																		
CONDITION COLOR	WHITE																																						
CONDITION	FAIR																																						
SIDE	۵	۵	∢	മ	ပ	۵	⋖	മ	∢	മ	ပ	Ω	∢	⋖	Ö	۷	മ	O	۵	മ	മ	æ	83	∢	<b>6</b> 0	O	۵	ပ	ပ	¥	В	ပ	۵	ပ	ပ	A	മ	ပ	۵
SUBSTRATE	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	MOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	BASEBOARD	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	CLOSET DOOR	CLOSET SHELF	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL
# Time	10/12/2010 11:04	10/12/2010 11:04	10/12/2010 11:05	10/12/2010 11:05	10/12/2010 11:05	10/12/2010 11:05	10/12/2010 11:05	10/12/2010 11:06	10/12/2010 11:06	10/12/2010 11:06	10/12/2010 11:07	10/12/2010 11:07	10/12/2010 11:07	10/12/2010 11:07	10/12/2010 11:08	10/12/2010 11:08	10/12/2010 11:08	10/12/2010 11:08	10/12/2010 11:09	10/12/2010 11:09	10/12/2010 11:09	10/12/2010 11:09	10/12/2010 11:09	10/12/2010 11:10	10/12/2010 11:10	10/12/2010 11:10	10/12/2010 11:11	10/12/2010 11:11	10/12/2010 11:11	10/12/2010 11:11	10/12/2010 11:12	10/12/2010 11:12	10/12/2010 11:12	10/12/2010 11:12	10/12/2010 11:12	10/12/2010 11:16	10/12/2010 11:16	10/12/2010 11:16	10/12/2010 11:16
#	943	944	945	946	947	948	949	920	951	952	953	954	922	926	957	928	959	096	961	962	963	964	965	996	296	896	696	970	971	972	973	974	975	976	977	978	979	286	981

PbC	C	0	0	0.02	9.0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0.02	0.01	0.03	0	0	0	0	0.02	0.01	0	0
Results	Negative																																						
ROOM	•	· <del></del>	2	2	2	2	0	2	က	က	က	က	က	4	4	4	4	4	4	5	5	Ŋ	c)	5	S	ည	IJ	Ŋ	9	9	9	9	9	9	7	7	7	7	7
FLOOR	•	-	•	•	τ-	•	τ-	τ	<del></del>	~	₩	τ	₹	~	<b>~</b>	<del>-</del>	•	~	•	~	-	~	τ	<del></del>	<del>-</del>	<del></del>	<del></del>	τ-	<del>-</del>	<del>-</del>	τ-	<del></del>	<del></del>	<del></del>	<del>-</del>	<del></del>	<b>~</b>	<b>~</b>	₽
SITE	K126																																						
COLOR	WHITE																																						
CONDITION COLOR	FAIR																																						
SIDE	⋖	⋖	٧	Ω	O	∢	æ	В	A	ш	ပ	۵	۵	۷	Ω	ပ	۵	∢	∢	٧	മ	O	۵	Ω	ပ	۵	۵	۵	∢	ш	ပ	۵	O	O	∢	ш	O	۵	ပ
SUBSTRATE	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD
COMPONENT	DOOR	DOOR JAMB	WALL	WALL	WALL	CABINET	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	CLOSET DOOR	WINDOW STOOL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR
# Lime	10/12/2010 11:17	10/12/2010 11:17	10/12/2010 11:17	10/12/2010 11:17	10/12/2010 11:18	10/12/2010 11:18	10/12/2010 11:18	10/12/2010 11:18	10/12/2010 11:19	10/12/2010 11:19	10/12/2010 11:19	10/12/2010 11:19	10/12/2010 11:19	10/12/2010 11:20	10/12/2010 11:20	10/12/2010 11:20	10/12/2010 11:21	10/12/2010 11:21	10/12/2010 11:21	10/12/2010 11:21	10/12/2010 11:22	10/12/2010 11:22	10/12/2010 11:22	10/12/2010 11:22	10/12/2010 11:22	10/12/2010 11:23	10/12/2010 11:23	10/12/2010 11:23	10/12/2010 11:23	10/12/2010 11:24	10/12/2010 11:24	10/12/2010 11:24	10/12/2010 11:24	10/12/2010 11:24	10/12/2010 11:25	10/12/2010 11:25	10/12/2010 11:25	10/12/2010 11:25	10/12/2010 11:25
#	982	983	984	985	986	987	988	989	066	991	992	993	994	995	966	266	866	666	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	2101	1013	1014	1015	1016	1017	1018	1019	1020

0	0	0	0	0.01	0	0.01	0	0.05	0.05	0.07	0.01	0	0	0	0.01	0.01	0	0.01	0.01	0	0.01	0	0.01	0.4	0	0	0	0.04	0.01	0.04	90.0	-	<del>-</del>	1.2	0	0	0	0
Negative	Positive	Positive	Positive	Negative	Negative	Negative																																
7	7	τ-	<b>*-</b> -	<del>-</del>	<del></del>	<b>v</b> -	<del></del>	2	2	2	2	7	က	က	ဗ	က	က	PORCH	PORCH	PORCH	4	4	ধ	4	4	4	4	ល	ς.	9	ស				-	~	~	<del>,</del>
<b>-</b>	<b>~</b>	ღ	ო	က	ო	က	ო	က	ო	က	ო	ന	က	ന	ო	ო	ო	က	ო	ന	ო	ო	ო	က	ო	ന	က	ო	က	ო	ო				2	7	N	7
K126	K126	K325				P234	P234	P234	P234																													
WHITE	BEIGE	BEIGE	BEIGE	WHITE				WHITE	WHITE	WHITE	WHITE																											
FAIR				FAIR	FAIR	FAIR	FAIR																															
ပ	ပ	മ	O	Ω	۷	∢	∢	∢	ш	ပ	۵	∢	∢	മ	ပ	۵	ပ	∢	۵	۵	∢	ш	ပ	٥	∢	∢	ပ	⋖	В	ပ	۵	CALIBRATE	CALIBRATE	CALIBRATE	മ	O	۵	⋖
WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL				DRYWALL	DRYWALL	DRYWALL	WOOD
DOOR JAMB	DOOR CASING	WALL	WALL	WALL	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	PORCH STRINGER	COLUMN	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL				WALL	WALL	WALL	DOOR
10/12/2010 11:26	10/12/2010 11:26	10/12/2010 11:28	10/12/2010 11:28	10/12/2010 11:29	10/12/2010 11:29	10/12/2010 11:29	10/12/2010 11:29	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:31	10/12/2010 11:31	10/12/2010 11:31	10/12/2010 11:31	10/12/2010 11:32	10/12/2010 11:32	10/12/2010 11:32	10/12/2010 11:32	10/12/2010 11:33	10/12/2010 11:33	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:35	10/12/2010 11:35	10/12/2010 11:35	10/12/2010 11:35	10/12/2010 12:43	10/12/2010 12:43	10/12/2010 12:43	10/12/2010 12:56	10/12/2010 12:56	10/12/2010 12:56	10/12/2010 12:56
1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059

0	0	0	0.02	0	0	0	0	0	0	0	0	0	0.03	0.11	0.01	0	0.02	0	0	0.01	0	0	0	0	0.01	0	0	0	0	0	0.01	0.01	0	0.01	0	0	0	0
Negative																																						
~	<del></del>	2	2	2	2	2	2	ო	ဗ	က	က	က	PORCH	PORCH	PORCH	4	4	4	4	4	4	4	4	2	S.	5	5	S	5	5	<b>.</b>	٣	~	-	Ψ-	<del>-</del>	2	2
7	7	2	2	2	2	2	2	2	2	2	7	2	2	7	2	2	2	2	2	2	7	2	2	2	7	2	73	7	7	7	<del>-</del>	<del></del>	-	<del>-</del>	<del>-</del>	~	₩	<del></del>
P234	P136																																					
WHITE	BEIGE	GREEN	GREEN	WHITE																																		
FAIR																																						
¥	∢	A	മ	ပ	Ω	Ω	O	¥	89	ပ	Ω	ပ	∢	۵	O	۷	8	ပ	Ω	ပ	۵	⋖	∢	∢	œ	ပ	Ω	ပ	ပ	ပ	⋖	മ	ပ	۵	∢	∢	∢	മ
WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL
DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	PORCH RAIL	PORCH STRINGER	WALL	WALL	WALL	WALL	WINDOW STOOL	CLOSET DOOR	D00R	DOOR JAMB	WALL	WALL	WALL	WALL	D00R	DOOR JAMB	CEILING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WALL	WALL
10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:58	10/12/2010 12:58	10/12/2010 12:58	10/12/2010 12:58	10/12/2010 12:58	10/12/2010 12:59	10/12/2010 12:59	10/12/2010 12:59	10/12/2010 13:00	10/12/2010 13:00	10/12/2010 13:00	10/12/2010 13:01	10/12/2010 13:01	10/12/2010 13:01	10/12/2010 13:02	10/12/2010 13:02	10/12/2010 13:02	10/12/2010 13:02	10/12/2010 13:02	10/12/2010 13:03	10/12/2010 13:03	10/12/2010 13:03	10/12/2010 13:03	10/12/2010 13:03	10/12/2010 13:04	10/12/2010 13:04	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:08	10/12/2010 13:08
1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098

1099	99 10/12/2010 13:08	WALL DRYWALL	DRYWALL	3 C C	FAIR WHITE	WHITE	P136	) ) )	2 2 2	resuits Negative	ם ס
1100	10/12/2010 13:08	CABINET	WOOD	∢	FAIR	WHITE	P136	_	7	Negative	0
1101	10/12/2010 13:09	DOOR	WOOD	В	FAIR	WHITE	P136	~	7	Negative	0
1102	10/12/2010 13:09	DOOR JAMB	WOOD	œ	FAIR	WHITE	P136	~	7	Negative	0
1103	10/12/2010 13:09	WALL	DRYWALL	∢	FAIR	WHITE	P136	۲	က	Negative	0
1104	10/12/2010 13:09	WALL	DRYWALL	B	FAIR	WHITE	P136	-	က	Negative	0
1105	10/12/2010 13:09	WALL	DRYWALL	O	FAIR	WHITE	P136	₩	က	Negative	0
1106	10/12/2010 13:10	WALL	DRYWALL	Q	FAIR	WHITE	P136	۳-	က	Negative	0
1107	10/12/2010 13:10	DOOR CASING	WOOD	۵	FAIR	WHITE	P136	₩	ო	Negative	0
1108	10/12/2010 13:10	WALL	DRYWALL	∢	FAIR	WHITE	P136	<b>~</b>	4	Negative	0
1109	10/12/2010 13:11	WALL	DRYWALL	Ю	FAIR	WHITE	P136	τ-	4	Negative	0
1110	10/12/2010 13:11	WALL	DRYWALL	O	FAIR	WHITE	P136	τ-	4	Negative	0
1111	10/12/2010 13:11	WALL	DRYWALL	۵	FAIR	WHITE	P136	-	4	Negative	0
1112	10/12/2010 13:11	DOOR	WOOD	⋖	FAIR	WHITE	P136	<del></del>	4	Negative	0
1113	10/12/2010 13:11	DOOR JAMB	WOOD	∢	FAIR	WHITE	P136	τ-	4	Negative	0
1114	10/12/2010 13:12	WALL	DRYWALL	∢	FAIR	WHITE	P136	τ-	ĸ	Negative	0
1115	10/12/2010 13:12	WALL	DRYWALL	B	FAIR	WHITE	P136	~	ហ	Negative	0
1116	10/12/2010 13:12	WALL	DRYWALL	ပ	FAIR	WHITE	P136	~	ហ	Negative	0
1117	10/12/2010 13:12	WALL	DRYWALL	Ω	FAIR	WHITE	P136	$\leftarrow$	ស	Negative	0.5
1118	10/12/2010 13:13	WINDOW STOOL	WOOD	O	FAIR	WHITE	P136	~	ъ	Negative	0
1119	10/12/2010 13:13	WALL	DRYWALL	∢	FAIR	WHITE	P136	₩.	9	Negative	0
1120	10/12/2010 13:13	WALL	DRYWALL	ш	FAIR	WHITE	P136	₩	9	Negative	0.01
1121	10/12/2010 13:13	WALL	DRYWALL	ပ	FAIR	WHITE	P136	-	ဖ	Negative	0
1122	10/12/2010 13:14	WALL	DRYWALL	۵	FAIR	WHITE	P136	~	9	Negative	0.01
1123	10/12/2010 13:14	DOOR	WOOD	ပ	FAIR	WHITE	P136	<b>~</b>	9	Negative	0
1124	10/12/2010 13:14	DOOR JAMB	WOOD	ပ	FAIR	WHITE	P136	~	9	Negative	0
1125	10/12/2010 13:14	WALL	DRYWALL	∢	FAIR	WHITE	P136	<del>-</del>	7	Negative	0.02
1126	10/12/2010 13:14	WALL	DRYWALL	മ	FAIR	WHITE	P136	Ψ-	_	Negative	0.01
1127	10/12/2010 13:15	WALL	DRYWALL	O	FAIR	WHITE	P136	<del>-</del>	7	Negative	0.05
1128	10/12/2010 13:15	WALL	DRYWALL	۵	FAIR	WHITE	P136	~	7	Negative	0.03
1129	10/12/2010 13:15	DOOR	WOOD	ပ	FAIR	WHITE	P136	<del></del>	7	Negative	0
1130	10/12/2010 13:15	DOOR JAMB	WOOD	ပ	FAIR	WHITE	P136	<b>~</b>	7	Negative	0
1131	10/12/2010 13:15	CEILING	DRYWALL	ပ	FAIR	WHITE	P136	~	7	Negative	0
1132	10/12/2010 13:19	WALL	DRYWALL	∢	FAIR	WHITE	M327	ო	₩	Negative	0
1133	10/12/2010 13:19	WALL	DRYWALL	В	FAIR	WHITE	M327	ო	Ψ-	Negative	9.04
1134	10/12/2010 13:19	WALL	DRYWALL	ပ	FAIR	WHITE	M327	က	~	Negative	0.02
1135	10/12/2010 13:19	WALL	DRYWALL	۵	FAIR	WHITE	M327	က	<del></del>	Negative	0.01
1136	10/12/2010 13:19	DOOR	WOOD	∢	FAIR	WHITE	M327	က	-	Negative	0
1137	10/12/2010 13:19	DOOR JAMB	WOOD	⋖	FAIR	WHITE	M327	က	<del></del>	Negative	0.02

Pbc	0	0	0.03	0	0.01	0	0.01	0	0	0	0.01	0	0.03	0	0.02	0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0.07	0.04	0.01	0.04	0	0	0	0.02	0.5	0.03	0.04
Results	Negative																																						
ROOM	~	2	2	7	2	7	2	2	ო	က	က	က	က	4	4	4	4	4	4	4	5	ស	ß	5	ιΩ	ιΩ	5	Ω	9	9	9	9	9	9	9	7	7	7	7
FLOOR	ო	ო	ო	ო	ო	ო	ო	ო	ო	ო	ო	ო	ო	ന	ო	ო	ო	ო	ო	က	ო	ო	ო	ო	ო	က	ო	ო	ო	ო	ო	ო	ന	ന	ო	ო	ന	ო	ന
SITE	M327																																						
COLOR	WHITE																																						
CONDITION COLOR	FAIR																																						
SIDE	A	۷	В	ပ	۵	۷	۵	Ω	∢	В	O	۵	В	۷	ш	ပ	Ω	∢	۷	ပ	۷	В	O	۵	В	മ	ပ	മ	∢	В	ပ	٥	ပ	ပ	۷	∢	В	O	Ω
SUBSTRATE	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	DOOR	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR JAMB	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	CLOSET DOOR	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CABINET	WALL	WALL	WALL	WALL
# Time	10/12/2010 13:19	10/12/2010 13:20	10/12/2010 13:20	10/12/2010 13:20	10/12/2010 13:20	10/12/2010 13:21	10/12/2010 13:21	10/12/2010 13:21	10/12/2010 13:21	10/12/2010 13:22	10/12/2010 13:22	10/12/2010 13:22	10/12/2010 13:22	10/12/2010 13:23	10/12/2010 13:23	10/12/2010 13:23	10/12/2010 13:23	10/12/2010 13:24	10/12/2010 13:24	10/12/2010 13:24	10/12/2010 13:24	10/12/2010 13:25	10/12/2010 13:25	10/12/2010 13:25	10/12/2010 13:25	10/12/2010 13:25	10/12/2010 13:25	10/12/2010 13:26	10/12/2010 13:26	10/12/2010 13:26	10/12/2010 13:26	10/12/2010 13:26	10/12/2010 13:27	10/12/2010 13:27	10/12/2010 13:27	10/12/2010 13:27	10/12/2010 13:28	10/12/2010 13:28	10/12/2010 13:28
#	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176

Pbc	0	0	0	0	0.01	0	0	0	0.01	0.03	0	0.8	0	0	0	0	0.01	0	0.01	0	0	0.01	0	0	0	0	0.01	0.04	0.04	0.03	0.12	0	0	0	0	0	0.07	9.0	0
Results	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative		R Negative	_		
ROOM	7	7	<b>~</b>	<del>-</del>	<del>-</del>	_	~	-	2	2	2	2	7	2	7	2	7	7	2	က	က	က	ო	က	က	က	က	4	4	4	4	4	4	4	EXTERIOR	EXTERIOR	EXTERIOR	EXTERIOR	EXTERIOR
FLOOR	က	က	<del>-</del>	₩-	<del>-</del>	τ-	-	<del></del>	~	τ-	~	τ	τ-	τ-	-	<b>-</b>	-	<del></del>	<b>-</b>	₩.	<del>-</del>	~	τ-	τ	<del></del>	~	<u>.                                    </u>		•	<del>-</del>	<del></del>	<u></u>	-	←	~	<del>,</del>	τ-	τ-	~
SITE	M327	M327	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	M129	PLAYGROUND	PLAYGROUND	PLAYGROUND	PLAYGROUND	POOL STORAGE
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	GREEN	BLACK	RED	BEIGE
CONDITION COLOR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR
SIDE	ပ	ပ	മ	ပ	٥	¥	۷	۷	∢	В	O	۵	∢	∢	æ	ပ	Ω	ပ	В	∢	œ	O	۵	∢	∢	ပ	۵	∢	ш	ပ	Ω	ပ	ပ	ပ	∢	∢	∢	۷	∢
SUBSTRATE	WOOD	MOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	DRYWALL	METAL	METAL	METAL	PLASTIC	WOOD
COMPONENT	DOOR	DOOR JAMB	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	WALL	WALL	WALL	WALL	CABINET	WALL	WALL	WALL	WALL	WINDOW STOOL	BASEBOARD	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	CLOSET DOOR	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	CEILING	RAIL	POST	STEPS	SLIDE	WALL
# Time				•	•	•	•	•	-				•	_	•	•		•	Ψ-		•	•	<del></del>	_	•	<b>v</b> -	•		-		•	•	ν-	-		•	•	•	5 10/12/2010 14:05
#	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215

3		0				_			0.01	-																				0.04						0.01	0.01		0.04
Salas	Negative																																						
	EXTERIOR	STAIR	LAUNDRY	HALL	HALL	HALL	HALL	HALL	STAIR	LAUNDRY	LAUNDRY	LAUNDRY	LAUNDRY																										
	~	~	~	<b>~</b>	-	-	Ψ-	<del>-</del>	τ	<del></del>	<del>-</del>	-	~	<del>-</del>	<del>-</del>	2	2	7	7	7	7	7	7	7	N	~	7	7	7	2	7	7	7	2	7	7	2	7	7
	POOL STORAGE	POOL	POOL	G BUILDING		E BUILDING																																	
	BEIGE	BEIGE	GREEN	BEIGE	GREEN	BEIGE	BLACK	WHITE	WHITE	WHITE	WHITE	GREEN	WHITE	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE
	FAIR																																						
	മ	ပ	ပ	Ω	Q	Ω	Ω	⋖	ш	ပ	Ω	ပ	Ω	∢	A	⋖	മ	ပ	Ω	∢	⋖	ပ	മ	∢	മ	ပ	Ω	¥	∢	ш	ပ	Ω	ပ	¥	A	A	മ	ပ	Ω
	WOOD	WOOD	WOOD	WOOD	METAL	CONCRETE	METAL	DRYWALL	WOOD	DRYWALL	DRYWALL	WOOD	METAL	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	WOOD	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL
	WALL	WALL	TRIM	WALL	DOOR	POOL FLOOR	GATE	WALL	WALL	WALL	WALL	STAIR RAIL	PIPE	DOOR	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	WINDOW STOOL	SHELF	WALL	WALL	WALL	WALL	WINDOW STOOL	WALL	WALL	WALL	WALL	STAIR RAIL	DOOR	DOOR CASING	WALL	WALL	WALL	WALL
	10/12/2010 14:05	10/12/2010 14:05	10/12/2010 14:05	10/12/2010 14:06	10/12/2010 14:06	10/12/2010 14:07	10/12/2010 14:08	10/12/2010 14:36	10/12/2010 14:36	10/12/2010 14:37	10/12/2010 14:37	10/12/2010 14:37	10/12/2010 14:37	10/12/2010 14:38	10/12/2010 14:38	10/12/2010 14:39	10/12/2010 14:39	10/12/2010 14:39	10/12/2010 14:40	10/12/2010 14:40	10/12/2010 14:40	10/12/2010 14:40	10/12/2010 14:41	10/12/2010 14:41	10/12/2010 14:41	10/12/2010 14:42	10/12/2010 14:42	10/12/2010 14:42	10/12/2010 14:45	10/12/2010 14:45	10/12/2010 14:45	10/12/2010 14:45	10/12/2010 14:46	10/12/2010 14:46	10/12/2010 14:46	10/12/2010 14:47	10/12/2010 14:47	10/12/2010 14:48	10/12/2010 14:48
	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254

GREEN E WHITE C
GREEN E GREEN E WHITE C
ב
VVALL 19101

Ppc	0	0	0.03	0.02	0	0.07	0.02	0	0.01	0	0	1.2	<del></del>	<u> </u>
Results	Negative	Negative	Negative	Negative	Negative			Negative	Negative	Negative	Negative	Negative	Positive	Positive
ROOM	LAUNDRY													
FLOOR	7	2	2	7	7	2	7	7	7	7	7			
SITE	A BUILDING	A BUILDING	B BUILDING											
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE			
CONDITION	FAIR													
SIDE	O	ပ	A	В	ပ	۵	A	A	۷	O	ပ	CALIBRATE	CALIBRATE	CALIBRATE
SUBSTRATE	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD			
COMPONENT	DOOR	DOOR CASING	WALL	WALL	WALL	WALL	DOOR	DOOR JAMB	DOOR CASING	DOOR	DOOR CASING			
Time	10/12/2010 15:08	10/12/2010 15:09	10/12/2010 15:14	10/12/2010 15:14	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:16	10/12/2010 15:19	10/12/2010 15:19	10/12/2010 15:19
#	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307

## NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103 Tel: 206.547.0100, Fax: 206.634.1936 1.888.NVLLABS(685.5227), www.nvllabs.com

### Calibration Check Test Results



Date: Oct 12, 20	10		
Client: King Cou	nty Housing Authority		
	n Apartment" 15517 NE. 12tl	<u>n</u>	
Street # 2010 636		<u>.</u>	
VL Project #: 2010-636	200 Spectrum Applyzor		MONIDOSO
nspected by: Tanveer K	09 Spectrum Analyzer	XRF Serial #: <u>178</u>	
ertification #: 6110	ilaii	Inspector Signature:	anveer Khan
oiration Date: Jan 13, 20	113	Inspector olgitature.	
Shadon Bato. Jan 15, 20	710		
NIST SRM Used First Calibration Ch	<u> </u>	ration Check Tolerance Used	+/- 0.06 mg
1 Hot Guilbration Gr	NIST SRM		Average
First Reading	Second Reading	Third Reading	
0.9	0.9	1.2	1
Second Calibration	Check NIST SRM	- construction of desired states	Average
First Reading	Second Reading	Third Reading	
1	1	1.2	1.07
Third Calibration Cl	neck (if required)		
			Average
First Reading	Second Reading	Third Reading	
1	0.9	1.1	1
Fourth Calibration Ch	eck (if required)		***************************************
. January of	NIST SRM		Average

NITON Serial # XLP 300A - 17840NR9395

PAINT

Inspected by: Tanveer Khan; WA / DOC Lead-Based Paint Inspector Certification # 6110 (Expires on; January 13, 2013) Site: "Cascadian Apartments" - 15517 NE. 12th Street, Bellevue, WA 98007
Date: 10/12/2010 9:30 am

Pbc	2.13	0.9	0.9	1.2	0	0	0.01	0	0.02	0	0.04	0.01	0	0.01	0	0	0.03	0	0.01	0.01	0	0.01	0	0	0	0	0.01	0.04	0.01	0
Results		Negative	Negative	Positive	Negative																									
ROOM					HALLWAY	STAIRWAY	LAUNDRY	LAUNDRY	LAUNDRY	LAUNDRY	LAUNDRY																			
FLOOR					<del></del>	<del></del>	<del></del>	τ-	<del></del>	~	_	-	~	-	~	-	-	~	<del></del>	~	~	τ	~	-	-	2	7	7	7	2
BUILDING					Ω	Q		O	۵	Ω	Ω	۵	۵	۵	Ω	۵	۵	۵	Ω	Ω	۵	Ω	۵	Ω	Ω	۵	Ω	Ω	۵	۵
COLOR					WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	BEIGE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
CONDITION					FAIR																									
SIDE	SHUTTER CAL	CALIBRATE	CALIBRATE	CALIBRATE	∢	ш	O	Ω	∢	⋖	∢	٨	∢	⋖	∢	∢	ш	O	۵		ပ			⋖	∢	∢	80	O	۵	
SUBSTRATE	Ø				DRYWALL	DRYWALL	DRYWALL	DRYWALL	CONCRETE	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL
COMPONENT					WALL	WALL	WALL	WALL	WALL	BASEBOARD	DOOR	DOOR CASING	DOOR JAMB	WINDOW CASING	WINDOW SILL	WALL	WALL	WALL	SIDING	CEILING	BASEBOARD	STAIR RAIL	STAIR BALUSTERS	DOOR	DOOR CASING	WALL	WALL	WALL	WALL	CEILING
Time	10/12/2010 9:32	10/12/2010 9:48	10/12/2010 9:48	10/12/2010 9:49	10/12/2010 10:08	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:09	10/12/2010 10:10	10/12/2010 10:10	10/12/2010 10:11	10/12/2010 10:11	10/12/2010 10:14	10/12/2010 10:15	10/12/2010 10:15	10/12/2010 10:16	10/12/2010 10:16	10/12/2010 10:16	10/12/2010 10:17	10/12/2010 10:17	10/12/2010 10:17	10/12/2010 10:18	10/12/2010 10:18	10/12/2010 10:19	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:21	10/12/2010 10:22	10/12/2010 10:22
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Results	Negative																																		
ROOM	LAUNDRY	EXTERIOR	CARPORT	CARPORT	CARPORT	CARPORT	CARPORT	HALLWAY	HALLWAY	HALLWAY	HALLWAY	HALLWAY																							
BUILDING	Ω	Ω	Ω	Ω	Ω	Ω	Δ	۵	۵	Ω	Ω		Ω	Ω	Ω	Ω	Ω	Ω	Ω	Ω	Ω	Ω		Ω	Ω	Ω	Ω	Ω	Ω	Ω	ഥ	ш	ட	ட	ΙL
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	GREEN	BEIGE	WHITE	WHITE	GREEN	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	WHITE							
CONDITION	FAIR	POOR	FAIR	FAIR	FAIR	POOR	FAIR	POOR	FAIR	FAIR	FAIR	FAIR	FAIR																						
SIDE	Q		۵	മ	ပ	ပ	¥	⋖	⋖	<b>a</b>	മ	മ	ш	В	ш	ш	മ	മ	മ	a	ပ	۵	∢	⋖	∢	∢	∢	∢	∢		⋖	മ	ပ	Ω	∢
SUBSTRATE	DRYWALL	DRYWALL	WOOD	CONCRETE	WOOD	ASPHALT	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD																								
COMPONENT	WALL	CEILING	COUNTER	WINDOW CASING	DOOR	DOOR CASING	DOOR CASING	DOOR	DOOR JAMB	SIDING	WINDOW CASING	CORNER TRIM	DOOR	DOOR CASING	DOOR JAMB	DOOR THRESHOLD	STAIR RAIL	STAIR BALUSTER	TRIM	FLOOR STRIP	SIDING	SIDING	SIDING	RAILING	RAILING BALUSTER	COLUMN	FASCIA	BEAM	SOFFIT	FLOOR STRIP	WALL	WALL	WALL	WALL	BASEBOARD
i Time	10/12/2010 10:22	10/12/2010 10:22	10/12/2010 10:23	10/12/2010 10:23	10/12/2010 10:23	10/12/2010 10:24	10/12/2010 10:24	10/12/2010 10:24	10/12/2010 10:25	10/12/2010 10:26	10/12/2010 10:27	10/12/2010 10:27	10/12/2010 10:28	10/12/2010 10:28	10/12/2010 10:28	10/12/2010 10:29	10/12/2010 10:29	10/12/2010 10:30	10/12/2010 10:30	10/12/2010 10:31	10/12/2010 10:32	10/12/2010 10:34	10/12/2010 10:38	10/12/2010 10:38	10/12/2010 10:39	10/12/2010 10:40	10/12/2010 10:40	10/12/2010 10:41	10/12/2010 10:41	10/12/2010 10:42	10/12/2010 10:52	10/12/2010 10:52	10/12/2010 10:52	10/12/2010 10:52	10/12/2010 10:53
Reading No	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	20	51	52	53	54	55	56	22	58	29	90	61	62	63

99											
	10/12/2010 10:55	DOOR	WOOD	∢	FAIR	GREEN	щ	~	HALLWAY	Negative	0
69	10/12/2010 10:55	DOOR JAMB	WOOD	۷	FAIR	GREEN	Ŀ	Ψ-	HALLWAY	Negative	0
70	10/12/2010 10:56	WALL	DRYWALL	∢	FAIR	WHITE	ட	τ	STAIRWAY	Negative	0
71	10/12/2010 10:56	WALL	DRYWALL	ш	FAIR	WHITE	ட	τ-	STAIRWAY	Negative	0
72	10/12/2010 10:56	WALL	DRYWALL	O	FAIR	WHITE	ш	~	STAIRWAY	Negative	0
73	10/12/2010 10:56	SIDING	WOOD	Ω	FAIR	WHITE	ᄔ	~	STAIRWAY	Negative	0
74	10/12/2010 10:57	STAIR RAIL	WOOD		FAIR	GREEN	Ц.,	-	STAIRWAY	Negative	0.01
75	10/12/2010 10:57	STAIR BALUSTER	WOOD		FAIR	GREEN	ഥ	~	STAIRWAY	Negative	0.01
92	10/12/2010 10:58	BASEBOARD	WOOD	ပ	FAIR	WHITE	止	<del>-</del>	STAIRWAY	Negative	0
11	10/12/2010 10:58	DOOR	WOOD	A	FAIR	GREEN	L	τ	STAIRWAY	Negative	0
78	10/12/2010 10:58	DOOR CASING	WOOD	۷	FAIR	GREEN	щ	τ-	STAIRWAY	Negative	0
79	10/12/2010 10:59	DOOR JAMB	WOOD	∢	FAIR	GREEN	ιL	~	STAIRWAY	Negative	0
80	10/12/2010 11:00	WALL	DRYWALL	۷	FAIR	WHITE	ļ <u>1</u> .	2	LAUNDRY	Negative	0.01
8	10/12/2010 11:00	WALL	DRYWALL	В	FAIR	WHITE	比	2	LAUNDRY	Negative	90.0
82	10/12/2010 11:00	WALL	DRYWALL	ပ	FAIR	WHITE	ш.	2	LAUNDRY	Negative	0.03
83	10/12/2010 11:01	WALL	DRYWALL	۵	FAIR	WHITE	ட	2	LAUNDRY	Negative	0
84	10/12/2010 11:01	COUNTER	WOOD	D	FAIR	WHITE	ш.	2	LAUNDRY	Negative	0.04
82	10/12/2010 11:02	WINDOW CASING	WOOD	O	FAIR	WHITE	ᄔ	2	LAUNDRY	Negative	0
98	10/12/2010 11:02	WINDOW SILL	WOOD	O	FAIR	WHITE	ഥ	2	LAUNDRY	Negative	0
87	10/12/2010 11:02	DOOR CASING	WOOD	∢	FAIR	GREEN	ட	8	LAUNDRY	Negative	0
88	10/12/2010 11:02	DOOR	WOOD	∢	FAIR	GREEN	ட	7	LAUNDRY	Negative	0
83	10/12/2010 11:03	DOOR JAMB	WOOD	∢	FAIR	GREEN	ш	7	LAUNDRY	Negative	0
06	10/12/2010 11:04	SIDING	WOOD	∢	FAIR	WHITE	ᄔ	~	EXTERIOR	Negative	0
91	10/12/2010 11:04	RAILING	WOOD	∢	FAIR	WHITE	ഥ	~	EXTERIOR	Negative	0
92	10/12/2010 11:05	RAIL BALUSTER	WOOD	∢	FAIR	WHITE	ш.	_	EXTERIOR	Negative	0
93	10/12/2010 11:07	TRIM	WOOD	∢	FAIR	GREEN	ш,	~	EXTERIOR	Negative	0.01
94	10/12/2010 11:09	SIDING	WOOD	Ш	FAIR	WHITE	<b>LL.</b>	<del>-</del>	EXTERIOR	Negative	0.01
92	10/12/2010 11:09	CORNER TRIM	WOOD	В	FAIR	GREEN	<b>L</b> L.	<del>.</del>	EXTERIOR	Negative	0.1
96	10/12/2010 11:09	WINDOW CASING	WOOD	Ф	FAIR	WHITE	L	-	EXTERIOR	Negative	0
26	10/12/2010 11:10	DOOR	WOOD	<b>6</b>	FAIR	BEIGE	ш	~	EXTERIOR	Negative	0
86	10/12/2010 11:10	DOOR CASING	WOOD	B	FAIR	BEIGE	LL.	Ψ-	EXTERIOR	Negative	0.02
66	10/12/2010 11:10	DOOR JAMB	WOOD	В	FAIR	BEIGE	ш	τ-	EXTERIOR	Negative	0
100	10/12/2010 11:11	DOOR THRESHOLD	WOOD	8	POOR	GREEN	ഥ	Ψ-	EXTERIOR	Negative	0.1
101	10/12/2010 11:12	STAIR RAIL	WOOD	В	FAIR	GREEN	L.	<b>~</b>	EXTERIOR	Negative	0
102	10/12/2010 11:12	STAIR BALUSTER	WOOD	ш	FAIR	GREEN	ш.	<del>-</del>	EXTERIOR	Negative	0
103	10/12/2010 11:13	SIDING	WOOD	ပ	FAIR	WHITE	<b>LL</b>	<del></del>	EXTERIOR	Negative	0.01
104	10/12/2010 11:14	SIDING	WOOD	Ω	FAIR	WHITE	ш	<del></del>	EXTERIOR	Negative	0

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Results	Negative																																				
ROOM	CARPORT	CARPORT	CARPORT	CARPORT	CARPORT	HALLWAY	STAIRWAY	LAUNDRY	EXTERIOR																												
FLOOR	•	•	-	<del>-</del>	<b>-</b>	<del></del>	~	<del>-</del>	~	~-	<del>-</del>	•	<del>-</del>	~	-	~	τ	τ-	₹-"	₹~	-	₹	τ	τ	₹~	₩.	7	2	2	2	2	7	2	7	7	2	<del>-</del>
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COLOR	GREEN	GREEN	WHITE	GREEN	GREEN	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	BEIGE	WHITE	GREEN	GREEN	GREEN	WHITE														
CONDITION	FAIR	FAIR	FAIR	FAIR	POOR	FAIR																															
SIDE	മ	В	മ	മ		∢	B	ပ	۵	∢	⋖	∢	ပ	∢	∢	∢	∢	മ	O	Ω		O			<	∢	∢	В	O	D	ပ	ပ	മ	∢	∢	∢	∢
SUBSTRATE	WOOD	WOOD	WOOD	WOOD	ASPHALT	DRYWALL	DRYWALL	DRYWALL	DRYWALL	CONCRETE	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	QOOM	WOOD	WOOD
COMPONENT	COLUMN	FASCIA	BEAM	SOFFIT	FLOOR STRIP	WALL	WALL	WALL	WALL	WALL	WINDOW CASING	WINDOW SILL	BASEBOARD	DOOR CASING	DOOR	DOOR JAMB	WALL	WALL	WALL	SIDING	CEILING	BASEBOARD	STAIR RAIL	STAIR BALUSTER	DOOR	DOOR CASING	WALL	WALL	WALL	WALL	WINDOW CASING	WINDOW SILL	COUNTER	DOOR	DOOR CASING	DOOR JAMB	SIDING
Time	10/12/2010 11:16	10/12/2010 11:17	10/12/2010 11:18	10/12/2010 11:18	10/12/2010 11:18	10/12/2010 11:26	10/12/2010 11:26	10/12/2010 11:26	10/12/2010 11:26	10/12/2010 11:27	10/12/2010 11:27	10/12/2010 11:27	10/12/2010 11:28	10/12/2010 11:28	10/12/2010 11:29	10/12/2010 11:29	10/12/2010 11:29	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:30	10/12/2010 11:31	10/12/2010 11:31	10/12/2010 11:32	10/12/2010 11:32	10/12/2010 11:31	10/12/2010 11:31	10/12/2010 11:33	10/12/2010 11:33	10/12/2010 11:33	10/12/2010 11:33	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:34	10/12/2010 11:35	10/12/2010 11:35	10/12/2010 11:35	10/12/2010 11:36
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		LAUNDRY	EXTERIOR		CARPORT	CARPORT CARPORT	CARPORT CARPORT CARPORT	CARPORT CARPORT CARPORT CARPORT	CARPORT CARPORT CARPORT CARPORT	CARPORT CARPORT CARPORT CARPORT HALLWAY	CARPORT CARPORT CARPORT CARPORT HALLWAY	CARPORT CARPORT CARPORT CARPORT HALLWAY HALLWAY																							
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		WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	GREEN	GREEN	BEIGE	WHITE	WHITE	GREEN	CLEAR	CLEAR	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN		GREEN	GREEN	GREEN WHITE WHITE	GREEN WHITE WHITE	GREEN WHITE WHITE WHITE	GREEN WHITE WHITE WHITE WHITE	GREEN WHITE WHITE WHITE WHITE						
		FAIR	POOR	POOR	POOR	FAIR	FAIR	FAIR	FAIR	FAIR	FAIR	OI VI	<u> </u>	FAIR	FAIR	FAIR FAIR POOR	FAIR FAIR POOR FAIR	FAIR FAIR POOR FAIR	FAIR FAIR POOR FAIR FAIR																
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		DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD		WOOD	WOOD	WOOD WOOD ASPHALT	WOOD WOOD ASPHALT CONCRETE	WOOD WOOD ASPHALT CONCRETE DRYWALL	WOOD WOOD ASPHALT CONCRETE DRYWALL																						
		WALL	WALL	WALL	WALL	COUNTER	WINDOW CASING	WINDOW SILL	DOOR	DOOR CASING	DOOR JAMB	SIDING	WINDOW CASING	TRIM	CORNER TRIM	DOOR	DOOR CASING	DOOR JAMB	DOOR THRESHOLD	RAILING	RAIL BALUSTER	RAILING	RAIL BALUSTER	SIDING	SIDING	SIDING	COLUMN	FASCIA	BEAM		SOFFIT	SOFFIT FLOOR STRIP	SOFFIT FLOOR STRIP WALL	SOFFIT FLOOR STRIP WALL	SOFFIT FLOOR STRIP WALL WALL
10/12/2010 12:52	10/12/2010 12:52	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 12:57	10/12/2010 13:00	10/12/2010 13:00	10/12/2010 13:00	10/12/2010 13:01	10/12/2010 13:01	10/12/2010 13:01	10/12/2010 13:03	10/12/2010 13:03	10/12/2010 13:04	10/12/2010 13:04	10/12/2010 13:04	10/12/2010 13:05	10/12/2010 13:05	10/12/2010 13:05	10/12/2010 13:06	10/12/2010 13:06	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:07	10/12/2010 13:08	10/12/2010 13:08	10/12/2010 13:09	10/12/2010 13:09	10/12/2010 13:10		10/12/2010 13:10	10/12/2010 13:10 10/12/2010 13:11	10/12/2010 13:10 10/12/2010 13:11 10/12/2010 13:12	10/12/2010 13:10 10/12/2010 13:11 10/12/2010 13:12	10/12/2010 13:10 10/12/2010 13:11 10/12/2010 13:12 10/12/2010 13:13
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Results	Negative																																				
ROOM	HALLWAY	HALLWAY	HALLWAY	HALLWAY	HALLWAY	HALLWAY	STAIRWAY	LAUNDRY	EXTERIOR																												
FLOOR	<del></del>	~	<del></del>	~	-	~	<b>~</b>	Υ-	τ-	<del></del>	~	<b>~</b>	Ψ-	<del>-</del>	τ-	<del></del>	2	2	2	7	7	7	7	7	7	7	<del>-</del>	<del></del>	~	-	τ-	<del>-</del>	~	~	-	<b>~</b>	₩
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COLOR	WHITE	GREEN	GREEN	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	GREEN	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	WHITE	BEIGE	WHITE	WHITE	GREEN						
CONDITION	FAIR	Poor																																			
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SUBSTRATE	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	WOOD	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	MOOD	WOOD															
COMPONENT	BASEBOARD	WINDOW CASING	WINDOW SILL	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	SIDING	CEILING	BASEBOARD	DOOR	DOOR CASING	STAIR RAIL	STAIR BALUSTER	WALL	WALL	WALL	WALL	WINDOW CASING	WINDOW SILL	COUNTER	DOOR	DOOR CASING	DOOR JAMB	SIDING	RAILING	RAIL BALUSTER	SIDING	CORNER TRIM	TRIM	WINDOW CASING	DOOR	DOOR CASING	DOOR JAMB	DOOR THRESHOLD
Time	10/12/2010 13:14	10/12/2010 13:14	10/12/2010 13:14	10/12/2010 13:14	10/12/2010 13:14	10/12/2010 13:15	10/12/2010 13:15	10/12/2010 13:15	10/12/2010 13:15	10/12/2010 13:16	10/12/2010 13:16	10/12/2010 13:16	10/12/2010 13:17	10/12/2010 13:17	10/12/2010 13:17	10/12/2010 13:17	10/12/2010 13:18	10/12/2010 13:19	10/12/2010 13:19	10/12/2010 13:19	10/12/2010 13:20	10/12/2010 13:20	10/12/2010 13:20	10/12/2010 13:21	10/12/2010 13:21	10/12/2010 13:21	10/12/2010 13:22	10/12/2010 13:22	10/12/2010 13:22	10/12/2010 13:23	10/12/2010 13:23	10/12/2010 13:23	10/12/2010 13:24	10/12/2010 13:24	10/12/2010 13:24	10/12/2010 13:25	10/12/2010 13:25
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STAIR RAIL	WOOD	8	FAIR	GREEN	Σ	~	EXTERIOR	Negative	0
STAIR BALUSTER	WOOD	В	FAIR	GREEN	Σ	<del>-</del>	EXTERIOR	Negative	0
SIDING	WOOD	ပ	FAIR	WHITE	Σ	<del></del>	EXTERIOR	Negative	0.01
SIDING	WOOD	Ω	FAIR	WHITE	Σ	<del></del>	EXTERIOR	Negative	0
COLUMN	WOOD	ш	FAIR	GREEN	Σ	-	CARPORT	Negative	0.09
FASCIA	WOOD	Ω	FAIR	GREEN	Σ	-	CARPORT	Negative	0.05
BEAM	WOOD	В	FAIR	WHITE	Σ	<u>-</u>	CARPORT	Negative	0
SOFFIT	WOOD	Ф	FAIR	WHITE	Σ	<del>~</del>	CARPORT	Negative	0.4
FLOOR STRIP	ASPHALT		FAIR	WHITE	Σ	<b>~</b>	CARPORT	Negative	0
WALL	CONCRETE	A	FAIR	WHITE	a.	~	HALLWAY	Negative	0.01
WALL	DRYWALL	۷	FAIR	WHITE	ሲ	<del>-</del>	HALLWAY	Negative	0.01
WALL	DRYWALL	മ	FAIR	WHITE	Ω.	<del>-</del>	HALLWAY	Negative	0
WALL	DRYWALL	ပ	FAIR	WHITE	۵.	<del>-</del>	HALLWAY	Negative	0
WALL	DRYWALL		FAIR	WHITE	<u>.</u>	~	HALLWAY	Negative	0.01
BASEBOARD	WOOD	⋖	FAIR	WHITE	۵	-	HALLWAY	Negative	0.01
DOOR	WOOD	4	FAIR	GREEN	۵.	_	HALLWAY	Negative	0.02
DOOR CASING	WOOD	⋖	FAIR	GREEN	۵.	₩	HALLWAY	Negative	0
DOOR JAMB	WOOD	¥	FAIR	GREEN	<u>о</u> .	τ-	HALLWAY	Negative	0
WALL	DRYWALL	⋖	FAIR	WHITE	۵	τ-	STAIRWAY	Negative	0
SIDING	WOOD	മ	FAIR	WHITE	۵	<del></del>	STAIRWAY	Negative	0
WALL	DRYWALL	ပ	FAIR	WHITE	Ф.	~	STAIRWAY	Negative	0.02
WALL	DRYWALL	Ω	FAIR	WHITE	۵.	•	STAIRWAY	Negative	0
CEILING	DRYWALL		FAIR	WHITE	ር.	<del>-</del>	STAIRWAY	Negative	0.01
BASEBOARD	WOOD	ပ	FAIR	WHITE	С.	<b>~</b>	STAIRWAY	Negative	0
STAIR RAIL	WOOD	ပ	FAIR	GREEN	α.	<del></del>	STAIRWAY	Negative	0.01
STAIR BALUSTER	WOOD	ပ	FAIR	GREEN	۵	<del>-</del>	STAIRWAY	Negative	0.03
DOOR	WOOD	∢	FAIR	BEIGE	ď	<del></del>	STAIRWAY	Negative	0
DOOR CASING	WOOD	٧	FAIR	WHITE	<b>ቤ</b>	<del>-</del>	STAIRWAY	Negative	0
WALL	DRYWALL	A	FAIR	WHITE	<b>₽</b>	N	LAUNDRY	Negative	0
WALL	DRYWALL	В	FAIR	WHITE	O.	7	LAUNDRY	Negative	0
WALL	DRYWALL	ပ	FAIR	WHITE	ф	7	LAUNDRY	Negative	0
WALL	DRYWALL	Ω	FAIR	WHITE	௳	2	LAUNDRY	Negative	0
WINDOW CASING	WOOD	ပ	FAIR	WHITE	<u>α</u> .	2	LAUNDRY	Negative	0
WINDOW SILL	MOOD	ပ	FAIR	WHITE	С.	7	LAUNDRY	Negative	0
COUNTER	WOOD		FAIR	WHITE	ட	7	LAUNDRY	Negative	0.02
DOOR	WOOD	A	FAIR	GREEN	Ω.	2	LAUNDRY	Negative	0
DOOR CASING	מסטאי	<	ביינו		C	c	700714	A. L 45	•

Time

#

0/12/2010 13:25

0/12/2010 13:26

0/12/2010 13:27 0/12/2010 13:27 0/12/2010 13:27

10/12/2010 13:25

0/12/2010 13:28 0/12/2010 13:30

0/12/2010 13:31 0/12/2010 13:31 0/12/2010 13:31

253 254 255 255 256 258 260 260 267 265 265 265 265 265 266 267 267 268 268 269 267 267 270

0/12/2010 13:28

10/12/2010 13:39

288

10/12/2010 13:38 10/12/2010 13:38 10/12/2010 13:38 10/12/2010 13:38

285 286 287

284

10/12/2010 13:37 10/12/2010 13:37 10/12/2010 13:37

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10/12/2010 13:35 10/12/2010 13:35 10/12/2010 13:36 10/12/2010 13:36

278 279 280

10/12/2010 13:34

272 273 274 275 276 276

10/12/2010 13:33 10/12/2010 13:33 10/12/2010 13:33 10/12/2010 13:34

10/12/2010 13:31 10/12/2010 13:32 10/12/2010 13:32 10/12/2010 13:33 10/12/2010 13:33

#	Time	COMPONENT	SUBSTRATE	SIDE	CONDITION	COLOR	BUILDING	FLOOR	ROOM	Results	Pbc
290	10/12/2010 13:39	DOOR JAMB	WOOD	۷	FAIR	GREEN	۵	2	LAUNDRY	Negative	0
291	10/12/2010 13:40	SIDING	WOOD	A	FAIR	WHITE	<u>с</u> .	~	EXTERIOR	Negative	0.03
292	10/12/2010 13:40	CORNER TRIM	WOOD	V	FAIR	GREEN	ட	Ψ-	EXTERIOR	Negative	0.03
293	10/12/2010 13:40	TRIM	WOOD	¥	FAIR	GREEN	ட	~	EXTERIOR	Negative	0
294	10/12/2010 13:41	WINDOW CASING	WOOD	¥	FAIR	WHITE	۵.	<del>-</del>	EXTERIOR	Negative	0
295	10/12/2010 13:41	DOOR	WOOD	A	FAIR	BEIGE	<u>α</u>	₹~	EXTERIOR	Negative	0.01
296	10/12/2010 13:42	DOOR CASING	WOOD	A	FAIR	WHITE	۵	•	EXTERIOR	Negative	0
297	10/12/2010 13:42	DOOR JAMB	WOOD	۷	FAIR	WHITE	Ф.	<del>-</del>	EXTERIOR	Negative	0
298	10/12/2010 13:43	DOOR THRESHOLD	WOOD	∢	POOR	GREEN	۵.	Υ	EXTERIOR	Negative	0.24
299	10/12/2010 13:43	RAILING	WOOD	⋖	FAIR	GREEN	Ф	₹~	EXTERIOR	Negative	0
300	10/12/2010 13:44	RAIL BALUSTER	WOOD	∢	FAIR	GREEN	۵.	τ-	EXTERIOR	Negative	0
301	10/12/2010 13:48	SIDING	WOOD	ш	FAIR	GREEN	ம	<b>~</b>	EXTERIOR	Negative	0.01
302	10/12/2010 13:48	RAILING	WOOD	മ	FAIR	WHITE	<u>α</u> .	<del></del>	EXTERIOR	Negative	0
303	10/12/2010 13:48	RAIL BALUSTER	WOOD	Ю	FAIR	WHITE	<u>.</u>	<del></del>	EXTERIOR	Negative	0
304	10/12/2010 13:48	SIDING	WOOD	ပ	FAIR	WHITE	<u>a</u>		EXTERIOR	Negative	0
305	10/12/2010 13:49	SIDING	WOOD	Q	FAIR	WHITE	۵.	₩.	EXTERIOR	Negative	0
306	10/12/2010 13:49	COLUMN	WOOD	∢	FAIR	GREEN	ը.	<b>-</b>	CARPORT	Negative	0.13
307	10/12/2010 13:49	FASCIA	WOOD	∢	FAIR	GREEN	OL.	<del></del>	CARPORT	Negative	0.02
308	10/12/2010 13:49	BEAM	WOOD	∢	FAIR	WHITE	۵	<del>-</del>	CARPORT	Negative	0.01
309	10/12/2010 13:50	SOFFIT	WOOD	⋖	FAIR	WHITE	۵.	₹-	CARPORT	Negative	0
310	10/12/2010 13:50	FLOOR STRIP	ASPHALT		POOR	WHITE	۵	~	CARPORT	Negative	0.07
311	10/12/2010 13:50	WALL	DRYWALL	K	FAIR	WHITE	Z	-	HALLWAY	Negative	0.02
312	10/12/2010 13:51	WALL	DRYWALL	82	FAIR	WHITE	Z	-	HALLWAY	Negative	0
313	10/12/2010 13:51	WALL	DRYWALL	ပ	FAIR	WHITE	z	~	HALLWAY	Negative	0.02
314	10/12/2010 13:52	WALL	DRYWALL	۵	FAIR	WHITE	z	τ	HALLWAY	Negative	0
315	10/12/2010 13:52	BASEBOARD	WOOD	A	FAIR	WHITE	z	-	HALLWAY	Negative	0
316	10/12/2010 13:52	DOOR	WOOD	A	FAIR	GREEN	z	τ-	HALLWAY	Negative	0.02
317	10/12/2010 13:55	DOOR CASING	MOOD	∢	FAIR	GREEN	z	•	HALLWAY	Negative	0.08
318	10/12/2010 13:56	DOOR JAMB	WOOD	¥	FAIR	GREEN	z	-	HALLWAY	Negative	0
319	10/12/2010 13:56	WALL	DRYWALL	∢	FAIR	WHITE	z	<del></del>	STAIRWAY	Negative	0
320	10/12/2010 13:59	SIDING	WOOD	<u>co</u>	FAIR	WHITE	z	τ-	STAIRWAY	Negative	0
321	10/12/2010 14:00	WALL	DRYWALL	O	FAIR	WHITE	z	₹	STAIRWAY	Negative	0
322	10/12/2010 14:00	WALL	DRYWALL	Ω	FAIR	WHITE	z	₹~	STAIRWAY	Negative	0
323	10/12/2010 14:00	CEILING	DRYWALL		FAIR	WHITE	Z	•	STAIRWAY	Negative	0
324	10/12/2010 14:01	STAIR RAIL	WOOD		FAIR	GREEN	z	<b>←</b>	STAIRWAY	Negative	0.07
325	10/12/2010 14:01	STAIR BALUSTER	WOOD		FAIR	GREEN	z	<b>~</b>	STAIRWAY	Negative	0.05
326	10/12/2010 14:02	BASEBOARD	WOOD	∢	FAIR	WHITE	Z	***	STAIRWAY	Negative	0

PbC	90.0	0	0	0	0	0	0.08	0.01	0.01	0	0	0.02	0	0	0	0.05	0.02	0	0.01	0.01	0	0	0	0.01	0	0	0	0.05	0.03	0	0.14	0.02	0.05	0	0.01	0	0
Results	Negative																																				
ROOM	EXTERIOR	HALLWAY	STAIRWAY	EXTERIOR	EXTERIOR	EXTERIOR	EXTERIOR	EXTERIOR																													
FLOOR	£-	<u>-</u>	<del>-</del>	<del>-</del>	_	•	•	~	<del>-</del>	~	~	Ψ-	<b>-</b>	<del></del>	•	<b>←</b>	~	τ−	₹-	₹~	~	<b>-</b>	<del></del>	<b>~</b>	₹	•	-	~	<b>-</b>	-	<b>~</b>	-		-	<del></del>	<del></del>	-
BUILDING FLOOR	z	z	Z	Z	z	z	z	Z	z	z	Z	z	Z	z	_	_	٦	<b></b>	٦		J	Ļ		_	_			<b></b> l	<b></b> l	_	_	<b>.</b> .			l	_	
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	WHITE	BEIGE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	GREEN	GREEN	WHITE	WHITE	WHITE	GREEN	WHITE	WHITE
CONDITION	FAIR	POOR	FAIR																																		
SIDE	⋖	∢	⋖	В	ပ	Ω	۵	۵	۵	Ω	Ω	۵	Ω	۵	¥	മ	ပ	Ω	⋖	⋖	۷	⋖	⋖	ш	ပ	۵	⋖			Α	¥		V	¥	∢	Y	¥
SUBSTRATE	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	DRYWALL	WOOD	DRYWALL	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD	DRYWALL	WOOD	WOOD	WOOD	WOOD	WOOD													
COMPONENT	SIDING	RAILING	RAIL BALUSTER	SIDING	SIDING	SIDING	CORNER TRIM	WINDOW CASING	DOOR	DOOR CASING	DOOR JAMB	DOOR THRESHOLD	STAIR RAIL	STAIR BALUSTER	WALL	WALL	WALL	WALL	BASEBOARD	DOOR	DOOR CASING	DOOR JAMB	WALL	SIDING	WALL	WALL	BASEBOARD	STAIR RAIL	STAIR BALUSTER	DOOR	DOOR CASING	CEILING	SIDING	CORNER TRIM	TRIM	WINDOW CASING	DOOR CASING
<u>li</u> me	10/12/2010 14:02	10/12/2010 14:02	10/12/2010 14:02	10/12/2010 14:03	10/12/2010 14:18	10/12/2010 14:18	10/12/2010 14:18	10/12/2010 14:19	10/12/2010 14:19	10/12/2010 14:19	10/12/2010 14:20	10/12/2010 14:20	10/12/2010 14:20	10/12/2010 14:21	10/12/2010 14:21	10/12/2010 14:21	10/12/2010 14:22	10/12/2010 14:22	10/12/2010 14:23	10/12/2010 14:23	10/12/2010 14:23	10/12/2010 14:24	10/12/2010 14:26	10/12/2010 14:26	10/12/2010 14:27	10/12/2010 14:27	10/12/2010 14:27	10/12/2010 14:27	10/12/2010 14:28	10/12/2010 14:28	10/12/2010 14:29	10/12/2010 14:29	10/12/2010 14:29	10/12/2010 14:30	10/12/2010 14:30	10/12/2010 14:36	10/12/2010 14:36
#	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363

DOOR TOO DOOR TO DOOR		$\forall$	FAIR POOR POOR FAIR FAIR FAIR	WHITE BEIGE GREEN	<b>ച</b> .		EXTERIOR	Negative	0.02
		< < < < m < < < < < < < < < < < < < < <	FAIR POOR POOR FAIR FAIR FAIR	BEIGE		<del>-</del>			c
		q $q$ $q$ $q$ $q$ $q$ $q$ $q$ $q$ $q$	POOR POOR FAIR FAIR FAIR	GREEN	_1		EXTERIOR	Negative	>
		$\forall$ $\forall$ $\Box$	POOR POOR FAIR FAIR FAIR			<del></del>	EXTERIOR	Negative	0
		< m U D < m U D < < < < < < < < < < < < < < < < < <	POOR FAIR FAIR FAIR FAIR	GKEEN	_	τ-	EXTERIOR	Negative	0
		m U D 4 m U D 4 4 4 4 4	FAIR FAIR FAIR FAIR	GREEN	_	<u>.                                    </u>	EXTERIOR	Negative	0
		O O A B O O A A A A A	FAIR FAIR FAIR	WHITE	_	<del>-</del>	EXTERIOR	Negative	0
		O 4 B C D A 4 4 4 4	FAIR FAIR FAIR	WHITE	J	~	EXTERIOR	Negative	0
		$\forall$ $\Box$ $\Box$ $\Box$ $\forall$	FAIR FAIR	WHITE	J	~	EXTERIOR	Negative	0
		m U D	FAIR	WHITE	7	<b>-</b>	HALLWAY	Negative	0.01
		O O A A A A A A		WHITE	7	-	HALLWAY	Negative	0.02
		□ <b>⋖ ⋖ ⋖ ⋖ ⋖</b>	FAIR	WHITE	7	<u>.                                    </u>	HALLWAY	Negative	0
		<b>44444</b>	FAIR	WHITE	ŋ	_	HALLWAY	Negative	0.01
		<b>∢∢∢∢</b>	FAIR	WHITE	٦	<b>~</b>	HALLWAY	Negative	0
		<b>444</b>	FAIR	WHITE		τ-	HALLWAY	Negative	0
		4 4 4	FAIR	GREEN	7	-	HALLWAY	Negative	0.01
		∢ ∢	FAIR	GREEN	י	<del>-</del>	HALLWAY	Negative	0
		<	FAIR	GREEN	יי	_	HALLWAY	Negative	0
			FAIR	GREEN	7	<b>~</b>	HALLWAY	Negative	0
	DRYWALL WOOD	A	FAIR	GREEN	7	~	HALLWAY	Negative	0
	WOOD	¥	FAIR	WHITE	7	Υ-	STAIRWAY	Negative	0
		В	FAIR	WHITE	7	τ-	STAIRWAY	Negative	0
	DRYWALL	ပ	FAIR	WHITE	7	₹	STAIRWAY	Negative	0.04
	DRYWALL	۵	FAIR	WHITE	7	₹~	STAIRWAY	Negative	0.01
	DRYWALL		FAIR	WHITE	J	-	STAIRWAY	Negative	0.05
	D WOOD	O	FAIR	WHITE	7	<b>-</b>	STAIRWAY	Negative	0.01
	_ WOOD	ပ	FAIR	GREEN	っ	<del></del>	STAIRWAY	Negative	0
	TER WOOD	ပ	FAIR	GREEN	7	<del>-</del>	STAIRWAY	Negative	0.01
	MOOD	¥	FAIR	GREEN	י	τ-	STAIRWAY	Negative	0
	VG WOOD	۷	FAIR	GREEN	7	τ	STAIRWAY	Negative	0
	DRYWALL	∢	FAIR	WHITE	7	2	LAUNDRY	Negative	0
1	DRYWALL	В	FAIR	WHITE	٦	7	LAUNDRY	Negative	0.01
0/12/2010 14:47 WALL	DRYWALL	ပ	FAIR	WHITE	<b>.</b>	7	LAUNDRY	Negative	0
10/12/2010 14:48 WALL	DRYWALL	Ω	FAIR	WHITE	7	7	LAUNDRY	Negative	0.03
10/12/2010 14:48 WINDOW CASING	ING WOOD	ပ	FAIR	WHITE	٦	7	LAUNDRY	Negative	0
10/12/2010 14:49 WINDOW SILL	LL WOOD	ပ	FAIR	WHITE	٦	7	LAUNDRY	Negative	0
10/12/2010 14:49 COUNTER	WOOD	Ω	FAIR	WHITE	っ	2	LAUNDRY	Negative	0.04
10/12/2010 14:49 DOOR	WOOD	∢	FAIR	GREEN	7	2	LAUNDRY	Negative	0

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PbC	0	0	0	0.01	0	0	0.02	0	0	0.01	0	0	0	0	0.06	0	0.01	0	0	0	0	0.01	0	0.01	0	0.01	0.02	0	0	0	0	0.02	0	0	0.02	0	0.01
Results	Negative																																				
ROOM	LAUNDRY	LAUNDRY	EXTERIOR	LAUNDRY																																	
FLOOR	2	2	•	<del></del>	<b>-</b>	<b>~</b>	-	Ψ-	<del></del>	<del>-</del>	τ-	τ-	-	-	-	<b>-</b>	<b>-</b>	2	2	7	7	7	7	7	7	7	2	2	7	2	7	7	2	7	7	2	7
BUILDING	7	7	7	7	7	7	٦	7	7	7	7	7	J	7	7	7	7	_	<b>_</b>	_	_	_	_	_		_					z	z	z	z	z	z	Z
COLOR	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN	WHITE	BEIGE	WHITE	WHITE	GREEN	GREEN	GREEN	WHITE	GREEN	GREEN	GREEN	WHITE															
CONDITION	FAIR	POOR	FAIR																																		
SIDE	۷	A	∢	۷	∢	В	ပ	Ω	Ω	Q	Ω	۵	۵	۵	۵	۵	۵	⋖	ω	ပ	D	O	ပ	മ	В	മ	മ	⋖	⋖	∢	∢	മ	ပ	۵	O	O	മ
SUBSTRATE	WOOD	DRYWALL	WOOD	WOOD	WOOD	DRYWALL	DRYWALL	DRYWALL	DRYWALL	WOOD	WOOD	WOOD																									
COMPONENT	DOOR CASING	DOOR JAMB	SIDING	RAILING	RAIL BALUSTER	SIDING	SIDING	SIDING	CORNER TRIM	TRIM	WINDOW CASING	DOOR	DOOR CASING	DOOR JAMB	DOOR THRESHOLD	STAIR RAIL	STAIR BALUSTER	WALL	WALL	WALL	WALL	WINDOW CASING	WINDOW SILL	COUNTER	DOOR	DOOR CASING	DOOR JAMB	DOOR	DOOR CASING	DOOR JAMB	WALL	WALL	WALL	WALL	WINDOW CASING	WINDOW SILL	COUNTER
Time	10/12/2010 14:50	10/12/2010 14:50	10/12/2010 14:50	10/12/2010 14:51	10/12/2010 14:51	10/12/2010 14:51	10/12/2010 14:51	10/12/2010 14:52	10/12/2010 14:52	10/12/2010 14:53	10/12/2010 14:53	10/12/2010 14:54	10/12/2010 14:54	10/12/2010 14:54	10/12/2010 14:55	10/12/2010 14:56	10/12/2010 14:56	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:15	10/12/2010 15:16	10/12/2010 15:16	10/12/2010 15:16	10/12/2010 15:16	10/12/2010 15:17	10/12/2010 15:17	10/12/2010 15:17	10/12/2010 15:18	10/12/2010 15:18	10/12/2010 15:19	10/12/2010 15:20	10/12/2010 15:20	10/12/2010 15:20	10/12/2010 15:20	10/12/2010 15:21	10/12/2010 15:21
#	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437

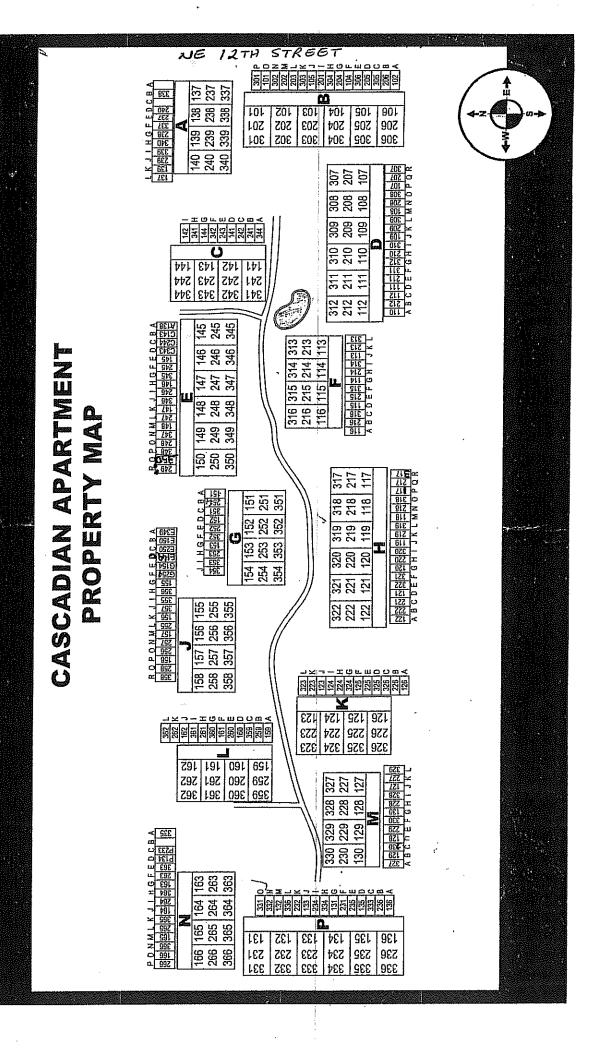
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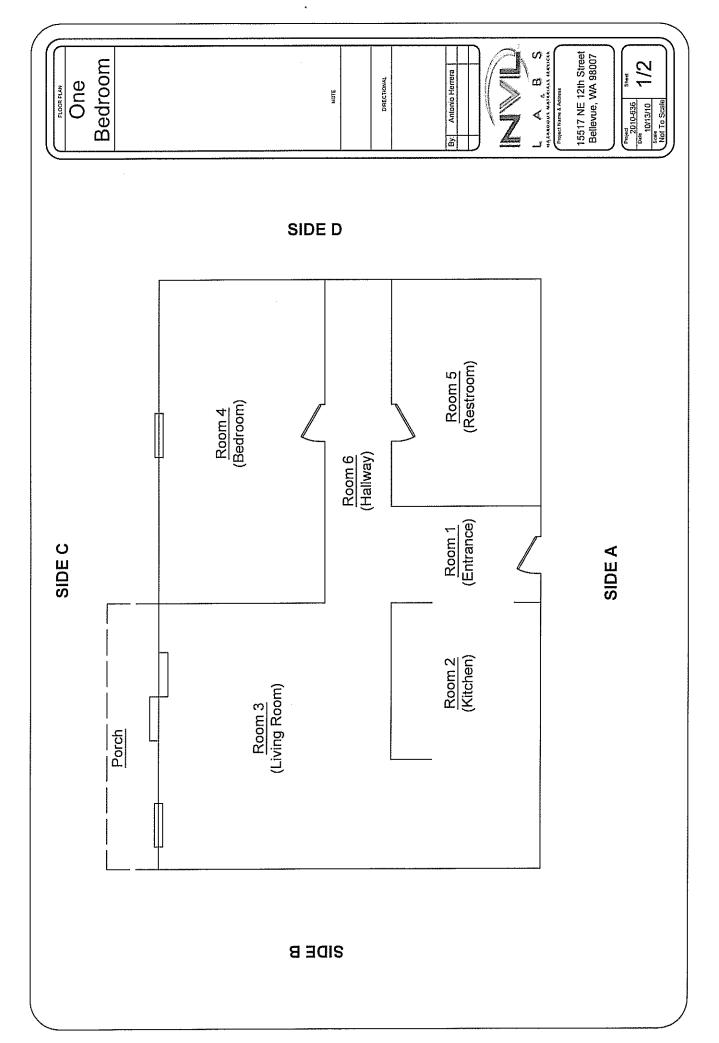
PbC	0	C	0	<del></del>	6.0	Ψ.
<b>a</b>		_				
Results	Negative	Negative	Negative	Positive	Negative	Positive
ROOM	LAUNDRY	LAUNDRY	LAUNDRY			
FLOOR	7	2	2			
BUILDING FLOOR ROOM	z	z	z			
COLOR	GREEN	GREEN	GREEN			
CONDITION	FAIR	FAIR	FAIR			
SIDE	¥	∢	∢	CALIBRATE	CALIBRATE	CALIBRATE
SUBSTRATE	WOOD	WOOD	WOOD			
COMPONENT	DOOR	DOOR CASING	DOOR JAMB			
Time	10/12/2010 15:21	10/12/2010 15:21	10/12/2010 15:22	10/12/2010 15:24	10/12/2010 15:24	10/12/2010 15:24
#	438	439	440	441	442	443

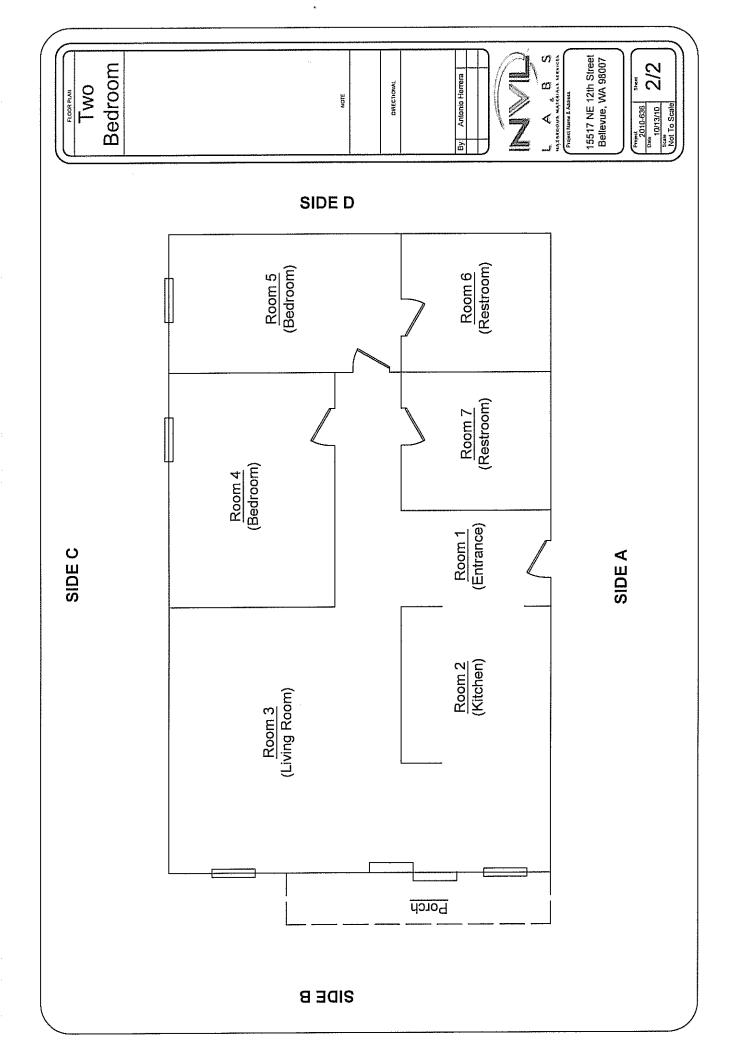


# Appendix B

FLOOR PLAN



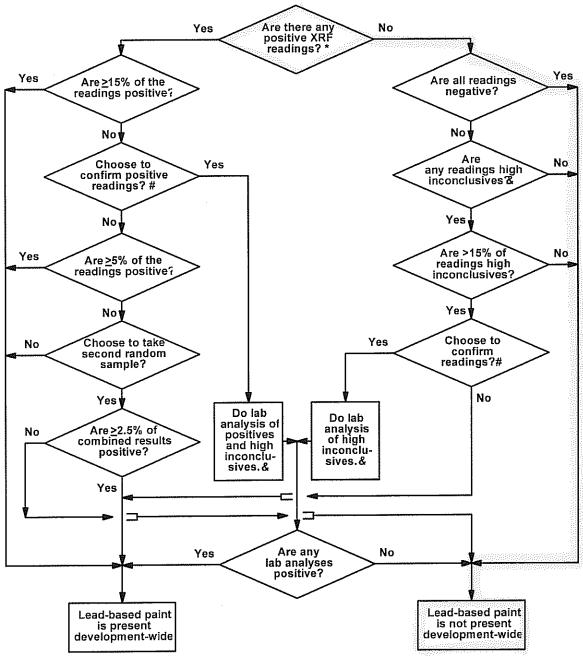






# Appendix C

**HUD MULTI-FAMILY FLOW CHART** 



"Positive," "negative," and "inconclusive" XRF readings are determined in accordance with the XRF instrument's Performance Characteristics Sheet as described in the HUD Guidelines for the Evaluation and Control of Lead Hazards in Housing, chapter 7.

and Control of Lead Hazards in Housing, chapter 7.

A high inconclusive reading is an XRF reading at or above the midpoint of the inconclusive range.
For example, if the inconclusive range is 0.41 to 1.39, its midpoint (average) is 0.90; a reading in the range from 0.90 to 1.39 would be a high inconclusive reading.

range from 0.90 to 1.39 would be a high inconclusive reading.

# Any paint or coating may be assumed to be lead-based paint, even without XRF or laboratory analysis.

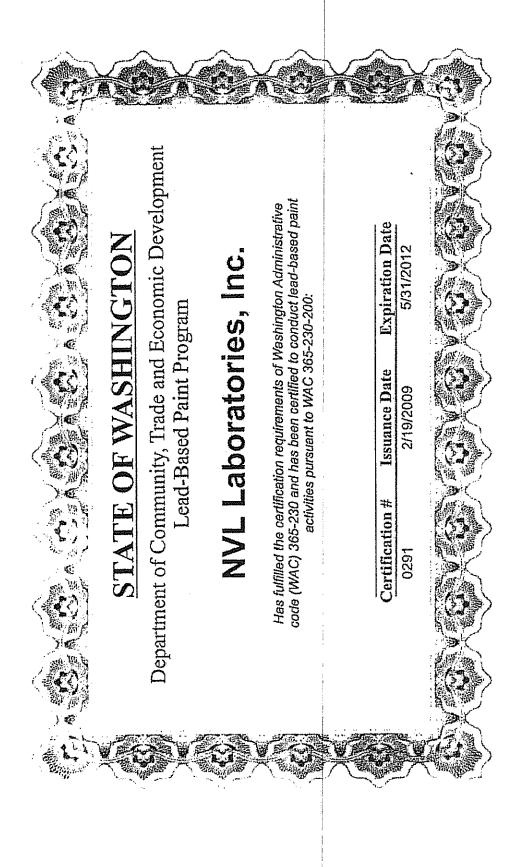
Similarly, any XRF reading may be confirmed by laboratory analysis.

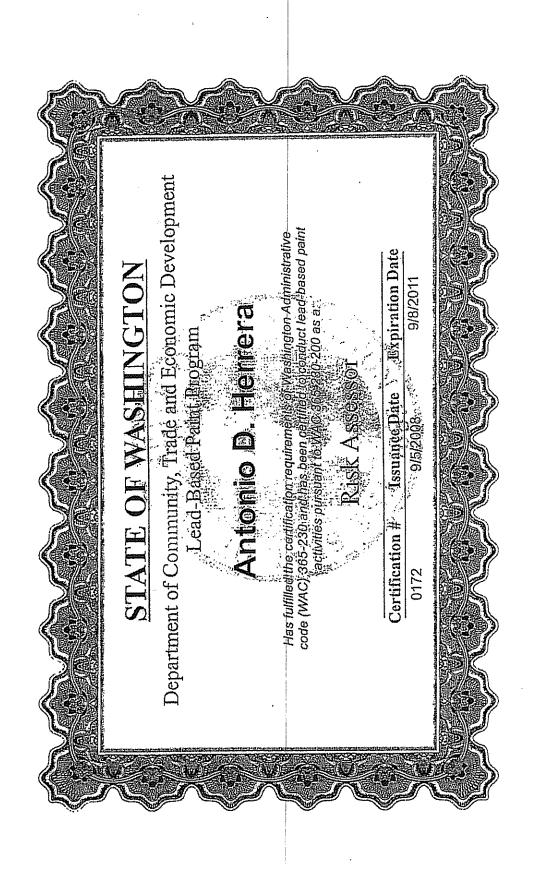
Figure 7.1 Multifamily Decision Flowchart



# Appendix D

INSPECTOR'S CERTIFICATIONS & LABORATORY QUALIFICATIONS





# Certificate of Achievement

Antonio Herrera NVL Laboratories, Inc. Has successfully completed the Manufacturer's Training Course for the NITON Spectrum Analyzer and is now certified in radiation safety and monitoring, measurement technology, and machine maintenance of the NITON XRF Spectrum Analyzer

A4061650823

Certificate Number

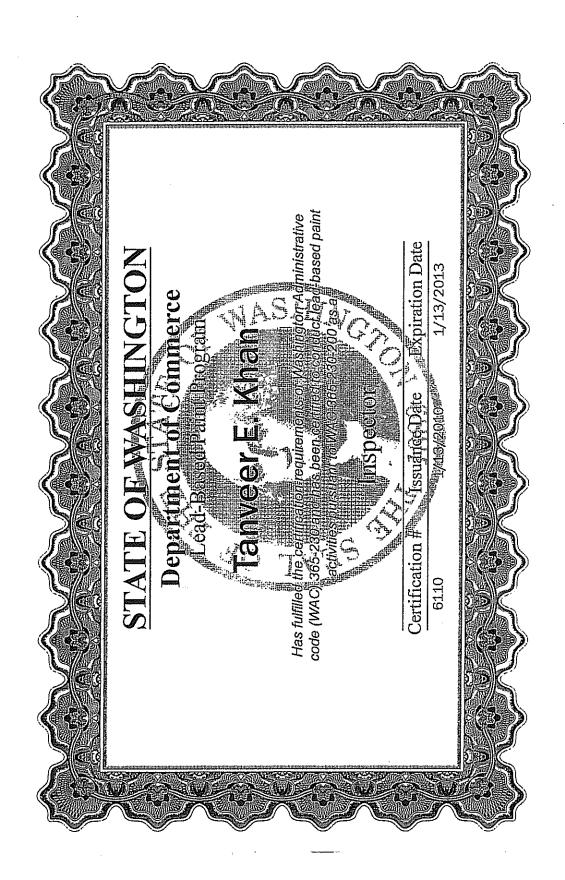
04/06/05 Seattle, W.

Date & Site of Course

Westeria Gorzalianhi

Training Coordinator

Oirector of Training





# Radiation Safety and Operation of Niton XRF Analyzers

This is to certify that

### Tanveer Khan

has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date:

2009 November 3

Location:

Seattle, WA

Certificate Number: 16:560038000000mj6Tg

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Radiation Šafety Training Coordinator

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James Blute, CHP

Manager of Health and Safety