



Demolition Outline Plan

9815 Robson Rd., Surrey, BC

	<u>NAME, TITLE</u>	<u>SIGNATURE</u>	<u>DATE</u>
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REVIEWED BY:	Vancouver Fraser Port Authority _____, Construction Manager		_____
APPROVED BY:	_____ _____		_____

No.	Date	Description
00	2021-07-07	Clearview Initial Submission
01	2021-07-027	Revision 01 including now Hazardous Materials Abatement Information

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1.0 DESCRIPTION OF DEMOLITION WORKS

Clearview Demolition's scope for this work plan shall be demolition to grade, and removal from project site all building structures located at 9815 Robson Rd., Surrey, BC. Included in scope shall be providing hazardous materials abatement of those indicated in the March 29th and April 16th, 2021 Astech Hazardous Materials reports and the June 1st, 2021 MBC Pre-Demolition Hazardous Material report. This shall be achieved by conducting removal and disposal of hazardous materials complimented by soft demolition and by heavy machine demolition of the structure between the hours of 7:00 AM – 3:30 PM, 5 days a week.

2.0 CURRENT SITE CONDITIONS

Most structures are of wood and metal make-up. The four kilns are of concrete cinder block construction. The two-storey main office building being demolished has a concrete, wood, and plaster shell with the interiors being comprised of drywall, plaster, wood, and concrete. The building was heated by natural gas-fed furnaces heating the office sections and electric baseboard heaters feeding the north tank areas. The main office building was constructed in the early 1970's with subsequent additions and renovations being completed in the 1980's. Hazardous material surveys have been completed indicating the presence of asbestos-containing material, lead-based paint, and material containing silica. Electrical feed is via an on-site transformer station. The water feed is from a main at the southwest corner of the property. Two pressure vessels shall be retained by the tenant.

3.0 COMMUNICATION STRATEGY

Clearview Demolition's communication strategy shall be enacted in accordance with Vancouver Fraser Port Authority's (VFPA) Schedule 8, Article 4, Para. 2 (Communications Plan). Clearview shall coordinate with VFPA's designated Communications Manager's representative to relay project updates, forecasts of planned activities, notifications of changes or impacts to traffic flow, dusty and noisy activities, and all other items outlined in VFPA's Schedule 8, Article 4 as required for the project.

3.1 Clearview Demolition's Communication Contacts

Chris Duffy – Sr. Project Manager	- 604-991-2253	chris@clearviewdemo.ca
Peter Krytiuk – Site Safety/Assistant	- 778-878-7162	peter@clearviewdemo.ca
Jimmy Samaras – Safety Manager	- 604-341-2763 (24 hours)	jimmy@clearviewdemo.ca
Brad Morrison – General Manager	- 604-841-1017	brad@clearviewdemo.ca

4.0 HAZARDOUS SUBSTANCES

Clearview Demolition's scope relating to Hazardous Substances is as outlined in the provided Pre-Demolition HazMat Supplementary Survey Report and is limited to:

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- silica exposure from both concrete breakage, and gypsum board demolition and removal,
- lead-containing paint on building material items to be disposed of,
- mercury-containing light bulbs and fluorescent tubes,
- asbestos-containing material.

Silica exposure shall be mitigated by following the recommendations of the Silica Hazard Assessment and Exposure Control Plans (*refer to the ECPs attached in Appendix C*) including, but not limited to, delineation of active exposure areas, water via a ¾" hose connected to the active water stand-up pipe located on the exterior of the southwest area of the building for dust suppression and control, as well as personal protective equipment including respiratory protection for workers, where required.

Lead-coated material exposure shall be mitigated by following the recommendations of the Lead Hazard Assessment and Exposure Control Plan (*refer to the ECP attached in Appendix C*) and all applicable WorkSafeBC Regulations. Job Hazard Assessments will be provided, where required, for materials identified as hazardous prior to any disturbance of such materials.

Asbestos exposure shall be mitigated by applicable WorkSafeBC Regulations. Safe Work Procedures (referred to on site), the relating Risk Assessment, and the WorkSafeBC Notice of Project, (*refer to the attached in Appendix D*).

There is the potential of encountering other hazardous materials onsite that were unable to be identified in the survey report. As per WorkSafeBC Regulation 20.112(6), if any suspected hazardous materials or possible asbestos-containing materials are discovered during any phase of the project, operations shall cease until the Hazmat Consultant can be notified to test and identify the materials in question. The removal of any additional hazardous materials including asbestos-containing material not listed in the provided survey reports will require additional testing to identify the material that must be submitted and approved by the Consultant and WorkSafeBC.

All labour, material, services, and equipment shall be in accordance with requirements of WorkSafeBC, the British Columbia Ministry of Environment, and other Provincial and Federal Agencies.

5.0 SCHEDULE

5.1 9815 Robson Rd. Building Demolition Schedule

The hazardous material abatement portion within the demolition project has an anticipated duration 25 working days.

Subsequent demolition of the structures, removal of tanks, and over-grade piles has an anticipated duration of 45 working days. Demolition works shall only take place Monday to Friday between the hours of 6:30am and 3:30pm. No demolition works or physical activities shall take place on Sundays or holidays.

Initiation of the project is expected to start within July, 2021.

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Until work is ready to commence, equipment shall be staged at a designated location inside the existing delineated fenced area.

When all approvals have been received, demolition equipment shall be positioned at the west end of the project site. Demolition activities shall be initiated working from the roof down, to the 2nd level of the main office building, and then to the ground level until complete.

6.0 TRAFFIC MANAGEMENT

All demolition vehicles shall enter the project work area via Robson Road and travel westbound to wither the west entry, centre entry, or east entry gates and turn north into the Project site.

Materials to be removed from site shall be machine-loaded into a combination of 80 and 90 cubic yard, tridem axle end dump trailers within the demolition zone.

The trucks shall leave site from Robson Road heading eastbound and continue to the final destination.

All vehicles entering and exiting the work area shall apply the Right of Way to pedestrians at public walkways and crosswalks and shall utilize yield to pedestrians.

Clearview Demolition does not anticipate any impacts to pedestrian, traffic or train routes during this activity. Transport trucks shall be staged within the delineated fenced lot at the west end while awaiting loads. Communication between the site and the drivers will be via 2-way radio or Bluetooth cellular who will be called in when loading of materials is ready to take place.

Any breakdown of transport trucks on project site property shall be rectified by way of a secondary tractor called in to tow away any existing load and the broken truck hauled away for repair. The driver of any disabled vehicle will notify the Project Superintendent or Project Manager immediately.

All traffic management shall be coordinated with the VFPA designated Communications Manager's representative to ensure all requirements of the project Traffic Management Plan are met.

6.1 Traffic Control Measures

Clearview Demolition shall establish with VFPA all Interface Management requirements and mitigating methodologies prior to initiating work at a designated delineated demolition work area. Specific would-be DP World and Parrish & Heimbecker Ltd. (to be notified by VFPA).

All protective measures shall include:

- Demolition site area drawings shall be submitted for each demolition component, where required.
- Communication with VFPA project management, where required, to establish approved traffic control measures.
- Establish traffic control personnel, spotters, delineated protective paths, when required, for ingress and egress to either a work area zone for project personnel, safety personnel, consultants, other contractors, demolition work crew, and vehicular traffic, or for potential construction vehicular paths.

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- Visible signage outlining all protective measures to be followed by those entering the work area zone.

Sign in/out to a work area zone for personnel requiring visitation including a review and sign-off on a visitor's Field Level Risk Assessment conducted, documented, and entered in site documents. The assessment shall outline:

- activities,
- environmental conditions and hazards,
- assessed hazards within area being visited,
- control measures,
- personal protective equipment requirements, and
- shall outline severity and probability factors.

Where required by visitation work tasks:

- Safe Work Procedure documents shall be provided and signed-on by visitor.
- All Safety Data Sheets shall be made available for visitor perusal, as required.
- All visitation into a demolition work zone shall require escort by Clearview's representative.

Transport trucks shall be staged at the west end of the building structures to avoid disrupting road traffic.

Communication between the site and the drivers will be via two-way radio or Bluetooth cellular to call drivers into the loading zones when loads are ready for transport out.

7.0 DECONSTRUCTION METHODOLOGY

7.1 Equipment Being Made Available

- Volvo 480 and 300 series excavators
- Skid Steer
- Hydraulic sheer attachment
- Hydraulic processor
- Hydraulic concrete breaker
- Tractor trailer combination (Tridem end dump)

7.2 Demolition Staging, and Equipment Locations

Equipment shall be staged in designated locations, as required within the demolition work zone.

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All work crew shall review and follow the protocol of the Clearview Demolition Exposure Control Plans, Safe Work Procedures, and WorkSafeBC Regulations.

Transport trucks with 80 and/or 90-yard tridem axle end dump trailers shall be utilized to remove from site materials such as metal and general non-hazardous waste as per the Traffic Management Plan for the project and as per Section 6 above.

A flag person(s) shall be utilized to stop and/or direct street and pedestrian traffic when trucks are entering or exiting the site.

A work area control zone shall be established consisting of existing fencing and construction signage attached at the work area entrance.

Oil absorbent booms shall be installed around the equipment, when required.

7.3 Demolition Sequencing

- Clearview Demolition shall receive confirmation from VFPA all utility services within the demolition work zone area have been disengaged.
- A pre-demolition meeting with stakeholders shall be conducted whereby this Plan and the related Demolition Hazard Assessment (*Refer to the Demolition Job Hazard Assessment attached in Appendix E*) shall be outlined prior to demolition being initiated.
- Clearview Demolition shall ensure and confirm all hazardous materials have been abated.
- Demolition shall commence following receipt of a consultant-issued abatement clearance letter.
- Hand demolition shall precede heavy equipment demolition of the structure, where required.
- Hand demolition shall be initiated, where required, to separate out loose items, gypsum board, fixtures, partitions, ceilings, utilities, ductwork, and equipment from the building interior areas and from stairwells.
- Once any required interior strip-out is completed an excavator equipped with demolition bucket shall be utilized to demolish the structures and a hoe ram concrete breaker shall remove the concrete piles down to grade /ground floor and then transfer the broken concrete to a stockpile readied for transport to a designated receiving facility.
- Demolition shall follow “Demolition Procedures” as outlined and shown on Demolition Site Area Drawings (*refer to Drawing attached in Appendix A*).
- All material waste shall be transported to receiving facilities.
- A final inspection and document formulation shall then take place of the remaining project area. Any ESC controls, fencing, or delineation no longer being required shall be removed.

7.4 Removal of any Hazardous Materials

Clearview Demolition’s scope for building Hazardous Materials is as per outlined information in the Astech and MBC-provided Pre-Demolition Supplementary Hazmat Survey Reports (*refer to the Pre-*

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Demolition HazMat Survey Report attached in Appendix F) and is currently limited to silica exposure from both concrete, gypsum, and plaster demolition, lead-containing paint building materials being demolished, asbestos-containing materials being abated, and mercury.

Silica exposure will be mitigated by following the recommendations of the silica hazard assessment and exposure control plans including but not limited to delineation of active exposure areas, water for dust suppression and control as well as personal protective equipment including respiratory protection for workers if required.

Exposure Control Plan protocols (*refer to ECPs attached in Appendix C*) will apply to silica in concrete and gypsum board, to lead-containing materials, to mercury, and to asbestos-containing materials.

There is the potential of encountering other hazardous containing materials on site that were unable to be identified in the original survey. As per WorkSafeBC Regulations 20.112(6), if any suspected hazardous materials or possible asbestos containing materials are discovered during any phase of the project, operations in that area will cease until the project consultant can be notified to test and identify the materials in question. The removal of any additional hazardous or asbestos-containing materials not listed in the report will require additional testing to identify the material that must be submitted and approved by the Hazmat Consultant and WorkSafeBC.

A copy of the reports detailing the locations and type of hazardous and asbestos materials to be abated shall be available on site to ensure that all of the hazardous materials are identified and removed accordingly prior to the demolition of the structure.

All labour, material, services, and equipment will be in accordance with the requirements of the WorkSafeBC, the British Columbia Ministry of Environment, and other Provincial and Federal Agencies. Demolition work shall not commence until a consultant-issued abatement clearance letter is received.

7.5 Decommissioning and Removal of Utilities and Mechanical Systems

VFPA to provide confirmation of service terminations prior to commencement of demolition activities.

7.6 Protection of Existing Structure and Utilities

Temporary electrical feed at the on-site transformer station shall be protected. The project site footprint with warning signs advising others of construction area shall be erected to provide barriers at completed work area zones and at entrances to work area zones.

Disconnects or removal of utilities shall be completed by others with no demolition commencing until written verification of disconnects is received from VFPA.

The sanitary line running from the project site to the Robson Road main to the project site shall be cut and capped by Clearview.

Storm drains, where present, shall be fitted with catch basin inserts.

Clearview Demolition shall ensure building safety during time, day, or holiday breaks from demolition works being conducted. A Clearview review of building entry points at each shift end and/or pre-break period will make sure each point is secure and locked or secure.

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All main office building window openings shall be removed during demolition stages of the project. Clearview shall undertake a daily and a pre-break period inspection of perimeter fencing to determine existence of any breaches. Any found shall immediately be remedied. The entry/exit point to the delineated project work site will be chain-locked at each shift end. Fence signage shall remain at all times.

7.7 Protective Covers and Barriers to Prevent Material Leaving Work Zones

Waste materials shall be stockpiled and stored on the project site property until enough materials are generated to warrant trucking of material to their specific destinations.

Any material piles that have the potential to be disturbed or compromised by weather such as wind and rain shall be covered over with tarps and adequately weighed down with dunnage. Environmental protection measures shall be installed, as required, around any tarp-covered debris pile consisting of a layer of silt cloth and working inward toward the pile, a layer of straw wattle, and finally an oil absorbent boom. All layers will encompass the pile.

The VFPA Construction and Environmental Management Plan requirements shall be adhered to by Clearview Demolition (*Refer to Requirements attached in Appendix B*).

7.8 Disposal Process and Destination

Demolished concrete will be segregated from all reinforcing steel, stockpiled, and remain on site readied for transport to a designated receiving facility. Demolished metal and waste shall be segregated into individual piles and be trucked off site to approved receiving facilities.

8.0 STRUCTURE STABILITY

Refer to the Project Site Demolition drawing attached in Appendix A.

9.0 ENVIRONMENTAL MONITORING AND MITIGATION MEASURES

- All noisy work shall take place within the current City of Vancouver noise by laws. 7:30am – 8:00pm Monday through Friday, 10:00am – 8:00pm on Saturdays. No work shall be conducted on Sundays.
- Dust shall be suppressed with the use of fine water (fogging system) spray mist supplied from the active water main located on the exterior at the southwest end of the building.
- During demolition works, oil booms shall on hand be placed alongside the equipment work zone, where required.
- Prior to the start of demolition crews shall inspect the area for any bird nests, wildlife habitat, or trespassers. If any are found within the project zone, the VFPA will be immediately notified.
- Materials generated during the demolition shall be recycled at the appropriate facilities. (i.e.: metals, concrete). Records of all facilities and associated weigh bills will be kept on record for submission to VFPA, when requested, and/or upon project completion.

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- All excavator equipment hydraulics shall be running with environmentally friendly oil replacing traditional petroleum-based hydraulic oils. All equipment shall be inspected daily prior to the start of any work to ensure there are no leaks in the equipment that would release any deleterious substance. All inspections will be recorded in subcontractor electronic documentation program, site documents, and available for review upon request.
- The work area shall be continually clean of spread-out debris as it is generated during demolition activities.
- All equipment shall arrive on site clean, free of any fluid leaks, noxious weeds, and invasive species. The equipment shall be inspected and documented prior to arrival on site with a follow-up inspection on-site after arrival and prior to starting any work. All inspections shall be documented on subcontractor site documents and available for review upon request.
- All equipment when not in use shall have the engines turned off to minimize emissions. All equipment shall be maintained as per manufacturer's recommendations and logged in the inspection reports.
- Debris piles shall be placed in an area where they can remain until debris is ready for load-out and covered over when necessary to prevent dust migration. During load-out water spray will be in place for dust control. Truck loads shall be covered when leaving site to deliver materials to their final destinations. All Clearview Demolition equipment is Tier 2 rated or greater.
- During the demolition of concrete, the concrete shall be removed in the largest sections possible to minimize fine debris generated.

10.0 TEMPORARY SHORING AND SUPPORT

N/A – No shoring is required for this scope of work.

11.0 RESTORATION OF LAND

N/A – Restoration of lands is to be conducted by others.

12.0 SUPPORTING CALCULATIONS

N/A – No calculations are required for this scope of work.

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Appendix A – Project Demolition Site Area Drawing

 The logo for Clearview Demolition Ltd. features a stylized evergreen tree inside a circular emblem, with the company name 'Clearview' in a serif font and 'DEMOLITION LTD.' in a smaller sans-serif font below it.	STRUCTURE-SPECIFIC DEMOLITION OUTLINE PLAN	Page: 12 of 16 Date: July 21, 2021
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Appendix B – Environmental Management Plan Requirements

(Submitted under separate cover)

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Appendix C – Hazardous Material Exposure Control Plans

(Submitted under separate cover)

- i) Lead
- ii) Silica in Gypsum
- iii) Silica in Concrete
- iv) Mercury
- v) Wood Dust

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Appendix D – Asbestos NOPH and Risk Assessment

- i. Safe Work Procedures – kept on site
- ii. Abatement Safety Policy Manual – kept on site

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Appendix E – Demolition Hazard Assessment

 The logo for Clearview Demolition Ltd. features a circular emblem with a stylized evergreen tree. To the right of the emblem, the word "Clearview" is written in a large, green, serif font, with "DEMOLITION LTD." in a smaller, green, sans-serif font underneath.	STRUCTURE-SPECIFIC DEMOLITION OUTLINE PLAN	Page: 16 of 16 Date: July 21, 2021
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Appendix F– Pre-Demolition HazMat Survey Report

(Submitted under separate cover)