
CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

9815 Robson Road, Surrey, BC

	<u>NAME, TITLE</u>	<u>SIGNATURE</u>	<u>DATE</u>
PREPARED BY:	Clearview Demolition Ltd. Peter Krytiuk, Safety / Coordination Assistant		2021-08-25
REVIEWED BY:	Clearview Demolition Ltd. Brad Morrison, General Manager		2021-08-25
REVIEWED BY:	Vancouver Fraser Port Authority _____, Construction Manager		_____
APPROVED BY:	_____ _____ _____		_____

No.	Date	Description
00	2021-06-01	Initial Submission
01	2021-08-25	Clearview Revision 01 Addressing VFPA Review of August 23, 2021



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PROJECT AUTHORITY: Vancouver Fraser Port Authority Project (VFPA) ☒

Scope of Work:

Included in Clearview Demolition’s Scope of Work relating to this Work Method Statement shall be the demolition and removal from site all 9815 Robson Road outbuildings including support elements, protective structures, office building structure in whole including storage tanks, all items down to grade, and excluding three horizontal pressure vessel runs and hydro shed leaving all grade surface coverings and grade crevices.

Activity Schedule:

Activity	Duration
Abatement strip-out of existing hazardous materials and general waste building materials.	60 days
Demolition of the structure and enclosed tanks utilizing heavy equipment.	40 days
Transfer demolished material and debris to work zone loading location and truck out materials bound for off- site receiving.	*To run concurrently with demolition
Total:	100 days

Hours of Work:

Standard	<input checked="" type="checkbox"/> Mon.-Sat. - 07:00–20:00
Extended	<input checked="" type="checkbox"/> Outside of Standard

VFPA-Project Site Contacts:

Position:	Name:	Phone:	Email:
Project Manager	Tony Meysen	778-233-7698	Tony.meyesen@portvancouver.com

Prime Contractor / Contacts:

Company:	Contact Name:	Phone:	Email:
Clearview Demolition	Brad Morrison	604-841-1017	brad@clearviewdemo.ca



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Clearview Demolition Role Contacts and Work Responsibilities:

<u>Company Name</u>	<u>Name & Contact; Site</u>	<u>Crew</u>
Clearview Demolition	<p>Site Supervisor: Kurt Gieselman ☎ 604-791-0077 📧 kurt@clearviewdemo.ca</p> <p>Site Safety Officer/ Assistant Coordinator: Peter Krytiuk ☎ 778 878 7162 📧 peter@clearviewdemo.ca</p> <p><u>Name & Contact; Administration</u></p> <p>Sr. Project Manager: Chris Duffy ☎ 604 991 2253 📧 chris@clearviewdemo.ca</p> <p>General Manager: Brad Morrison ☎ 604 841 1017 📧 brad@clearviewdemo.ca</p> <p>Health & Safety Manager: Jimmy Samaras ☎ 604 341 2763 📧 jimmy@clearviewdemo.ca</p>	<p>a) Operators with competency; b) Spotters c) Labourers</p>

Engineering / Survey:

Description:

Astech	Preliminary HazMat Assessment	
Astech	Secondary HazMat Assessment	
MBC	Pre-Demolition HazMat Assessment	



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Interface Parties:

Potential Impact:

DP World	None
Port Community Liaison Committee	None
City of Surrey	None
Parrish & Heimbecker Limited	None

Equipment List:

Description:

Volvo 460 Hi Reach Excavator	Excavator for demolition and shearing
Volvo 480 & 380 Excavators	Excavator for demolition, processing, and loading
Hydraulic Shear	Excavator attachment for cutting
Hydraulic Concrete Ram Breaker	Excavator attachment for concrete breakage
Hydraulic Processor	Excavator attachment for concrete processing
Boom Lift and / or Scissor Lift	Elevating work platforms to be used to access existing elevated materials
Skid Steer	To be used to extract & clear demolition materials

Design Drawings Required: (i.e. IFC, Shop Drawing, Temp Works)

Reference Abatement Site Drawings
 N/A

Off Work Zone Required: Yes No

Description: _____

Access : _____

Parking : _____

Owner Escort? Yes No If yes, a 24-hour notice is required.

Site Access:

Robson Road Street Entrance *Notify VFPA if ingress/egress shall pass 17:00 hours*



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Traffic Control and Rail Flagging Requirements:

Refer to the Traffic Management Plan (TMP) in the Demolition Plan, as coordinated with Operations; Section 6.0; Robson Road Entrance.

Traffic Control Measures

- Clearview Demolition Management, as required, shall mitigate methodologies prior to initiating work at a designated delineated demolition work area.
- Demolition work area drawings shall be provided for each demolition component.
- Protective measures shall include:
 - Traffic Control Personnel along with delineated protective paths, as 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 a potential construction vehicular path shall be established in consultation and in communication with tenant and VFPA.
 - 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 and documented.
 - 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 by demolition contractor and signed-on by visitor onto Clearview's SiteDocs app.
 - 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.
- Clearview Demolition doesn't anticipate any impacts to pedestrian, traffic, or train routes during this activity. Trucks will not be staged on any Port roads or active Port property while awaiting loads. Trucks shall be staged, as required, within the delineated demolition work zone areas to avoid disrupting vehicular traffic. There shall be no usage by Clearview of adjacent lands to project site.
- Communication between the site and transport drivers will be via two-way radio or Bluetooth cellular to call drivers into the loading zones when loads are ready for transport out.

Permits: None required outside of the demolition permit.



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Advanced Notifications:

- Notification to locally impacted stakeholders will be conducted via the VFPA Project Lead.
 - Notification to local vicinity residents and businesses will be the responsibility of the applicant.
 - Interface Management shall include VFPA Land Operations, and DP World.
 - VFPA Land Operations will be notified prior to demolition work commencing.
 - The advanced notification period shall be no less than 14-days.
-



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Associated Activity Demolition of the 9815 Robson Road Structures

Demolition Delineated Zone Start-Up

- Reference prepared Demolition Plan; Work Methods; and Safe Work Procedures.

Demolition Site Work Area Preparation

- Reference prepared Demolition Plan (*separate cover*); Work Methods; and Safe Work Procedures (*reference Appendix G*).

Demolition Site Work Area Safe Work Procedures

- The entire demolition workforce shall review, follow, and sign onto the protocol of demolition Exposure Control Plan for: (*Refer to Exposure Control Plans / Safe Work Procedures attached in Appendix G*)
- Silica
- Lead
- Mercury
- Asbestos; Exposure Control Plan and Safe Work Procedures shall be included with the Notice of Project, Asbestos, when received from WorkSafeBC.

- The entire demolition workforce shall review, follow, and in Clearview's Site Documents app, sign onto the protocol of demolition Safe Work Procedures for:
 - Building Structural Demolition
 - Heavy Equipment,
 - Mobile Vehicles,
 - Aerial Lifting Device
 - Operational Use of Small Power Tools
 - Lifting & Material Handling

Demolition Site Ingress / Egress Procedure

- Reference prepared Demolition Plan via Robson Road entrance.

Abatement Strip-Out Procedure

- (*Refer to Risk Assessment and Safe Work Procedures in Appendix I, Abatement Procedures*).



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Demolition Methodology

- Clearview Safety Plan shall meet or exceed WorkSafeBC Guidelines.
- The demolition scope of work and Job Hazard Assessment (JHA) (*refer to attached JHA in Appendix C*) shall be reviewed with tenant and VFPA and full demolition work crew in advance of demolition being initiated.
- Weather shall be reviewed daily and may impede work schedule dependent on conditions.
- Work shall cease once wind level exceeds 50 km/hr.
- During all demolition activities, a fine mist sprayer equipped with a ¾" construction grade hose fed from an installed stand-up pipe at the west end of the site shall be utilized for dust control, when not raining.
- Crews shall begin within the west to remove existing buildings using heavy equipment demolition.
- Inspections of all equipment utilized during the demolition process shall be conducted daily prior to beginning operations, shall be formulated, and kept in site documents.
- The 460 Volvo excavator may be used, if necessary, to knock down building materials from the upper portions of inner walls.
- Non-hazardous general waste shall be dropped to the inside and stockpiled at approved dump zones outside the structures. These areas will be delineated using delineators, red danger tape and signage providing a barrier at the dump zone area. A spotter shall be in place at all times during dumping of materials and shall maintain 2-way radio communication with demo crews.
- All waste material shall be loaded out into a pre-authorized transport truck with 80 or 90-yard end dump trailer for transfer to approved receiving facilities.
- Demolition of the structures shall be initiated at the west end with the Volvo excavator equipped with a shear attachment following the written engineered procedure outlined in the Structure Specific Demolition Site Plan Drawing for the area. (*Refer to Structure Specific Demolition Plan Site Drawing in Appendix F*).
- Oil absorbent booms shall be present beside the equipment working the demolition and shall form an approved perimeter distance from the equipment.

Demolition Outline Plan

- (*Reference prepared Demolition Outline Plan attached in Appendix J*).

Demolition Sequencing

- (*Reference prepared Demolition Plan and Site Drawing attached in Appendix F*).

Picture, Sketch or Notes, Work Areas

See Appendix F, Site Drawing.



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Work Impacts and Environmental Mitigation Measures

The scope of work described in the Demolition Outline Plan, including any future changes in methodology or specific tasks not captured or described herein, are subject to the conditions of the Construction Environmental Management Plan, including all sub-plans and stand-alone plans. Specific mitigation measures pertaining to this work are included below. Water management, where required, shall include run-off protection utilizing a combination of silt cloth, straw wattles, and oil booms in bundle form laid where required along with catch basin collars. All waste, recyclables, and concrete, where present, shall be readied for transfer to receiving facilities.

Atmospheric Noise Management

During the construction of the Project, noise, vibration, and light will result from various activities, including heavy equipment use. Potential effects may include disturbance of nearby residents and local marine life in the vicinity of the Project site.

- A Noise Management Plan along with the Noise Assessment Project Score is attached (*refer to Appendix K*).
- Properly maintain all equipment to limit noise emissions, and fit equipment with functioning exhaust and muffler systems as applicable.
- Confirm that machinery covers and equipment panels are well fitted and remain in place to muffle noise, and bolts and fasteners will be tight to avoid rattling.
- Prohibit use of engine brakes in and around residential areas.
- Use short-term sessions to reduce noise impacts when high-noise (i.e., excess of 100 dBA) activities are necessary.
- Position stationary equipment to minimize noise disturbance to the surrounding communities whenever possible.

Air Quality Management

Emissions from vehicles, mobile equipment, and generators will be controlled; control measures will include:

- Optimize truck loads to reduce the number of trips between the source and destination.
- Maintain fleet vehicles and equipment according to manufacturers' guidelines.
- Operate equipment within load tolerances and ratings and minimize cold starts.
- Perform routine, daily checks of the exhaust system of all equipment to identify actual or potential deficiencies.
- Limit unnecessary idling of vehicles and equipment.



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Fuel/Hazardous Material Management

Clearview will implement the following source control / avoidance measures in a context-specific manner based on site conditions and the work activities being performed. These measures will be to reduce the risk of potential fuel impacts to terrestrial and aquatic resource values. The range of mitigation measures that will be applied in a context-specific manner are as follows:

- Conduct fuel deliveries and refueling using trained personnel.
- Personnel trained in fueling procedures and use of spill kits will attend all dispensing or transferring of fuel for the duration of the operation.
- Fueling of equipment will comply with safe operating procedures to avoid leakages and spills to land or water.
- Project personnel will be knowledgeable in the use of the spill kit. Spill kit contents comply with standard items.
- The fueling operator will verify that there is a proper connection between the fuel fill hose and the fill pipe of the tank, mobile refueling tank, or the equipment being filled, and that the fill valve is open.
- The receiving fuel tank will not be allowed to overflow.
- While refueling, suspend the operation of moving equipment in the immediate vicinity of the refueling activities.
- Refuel smaller equipment using CSA approved portable fuel container(s).
- When not in use, place portable fuel containers in portable secondary containment rather than directly on the ground.

Environment Management

Tenant shall be responsible for securing the services of an Independent Environmental Monitor (IEM), name to be provided to VFPA prior to project initiation to conduct an Environmental Review.

An abatement monitor will be responsible for visitations to the project site twice per week and shall prepare bi-weekly monitoring reports during demolition along with waste transfer tickets.

Clearview shall work with the independent expert on Hazardous Waste Management. All reports, both written and laboratory-generated, shall be provided by Clearview Demolition to VFPA via the tenant.



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Spill Prevention and Response

Clearview will implement the following control measures from the Fuel Management Plan to mitigate environmental impacts, and to reduce the risk of spills.

- Smoking will be prohibited within 15m of fuel storage.
- CSA approved portable fueling equipment will be used by authorized and trained personal only.
- Personnel trained in fueling procedures and use of spill kits will be full time on the operation to attend all dispensing or transferring of fuel.
- The fueling operator will verify that there is a proper connection between the fuel fill hose and the fill pipe of mobile refueling tank, or other equipment being filled.
- The site will be equipped with spill kits compliant of the Spill Response Plan, (*reference Plan attached in Appendix B*).
- When not in use, place portable fuel containers in its designated storage area.

Other measures specific to the operation include:

- Fueling must happen in a well-ventilated area.
- The receiving fuel tank will not be allowed to overflow.

In the case of a spill, VFPA will be prepared to comply with the following actions from Spill Response Plan:

- Any spills are to be immediately notified to:

Tenant and VFPA Land Operations: TBD

Reporting Spills:

- Reporting and notifications for spills outside the delineated project site will be led by VFPA Management, who will be the Incident Commanders for non-VFPA areas of the project.
- Refer to Spill Response Plan for a summary of reporting procedures.
- In the event of an unplanned release of waste materials (solid, liquid or gas), follow the notification and incident response process provided in the CEMP.

Waste Management

Clearview Demolition will implement the following source control / avoidance measures in a context-specific manner based on site conditions and the Work activities being performed. These measures will be incorporated into activity-specific Work Method Statements as determined appropriate to reduce the risk of potential impacts from project waste. The range of mitigation measures that will be applied in a context-specific manner are as follows:



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- Contain all Project garbage and construction wastes and dispose of wastes at an accredited disposal facility in compliance with applicable legislation and regulations of all authorities having jurisdiction
- Provide and maintain sanitary facilities, in the form of portable toilets, for the use of workers in accessible locations throughout the Site. Sanitary facilities will be kept in a safe and clean condition, be secured to prevent tipping, located at least 15 m from any waterbody or catch basin, managed to prevent overflowing and will include both men's and women's facilities.
- Garbage cans will have lids and are labelled, and appropriate containers are provided for food waste and recyclable office waste
- Remove food and/or domestic waste from the construction site daily or, if such waste is to remain on-site overnight, store them in animal-resistant waste receptacles
- Remove non-hazardous solid waste for off-site disposal at least weekly
- Avoid stockpiling of construction wastes within 15 m of fish-bearing waters
- Implement a waste minimization policy for procurement of construction materials and services (i.e., request suppliers to minimize packaging)
- Maintain site cleanliness (i.e., "good housekeeping") by cleaning up construction debris, garbage, and other non-hazardous solid waste materials at least weekly
- Maintain records of off-site disposal and submit them to Owner upon request
- All waste and recyclables shall be removed from the project site by truck haulage.



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Appendix A – Communications / Reporting List

Clearview Demolition Ltd. (Prime Contractor/Contractor):

Name	Position	Email	Phone	Cell
Jimmy Samaras	Health & Safety Manager	jimmy@clearviewdemo.ca	604-792-3330	604-341-2763
Peter Krytiuk	Site Safety Officer	Peter@clearviewdemo.ca		778-878-7162
Brad Morrison	General Manager	brad@clearviewdemo.ca	604-792-3330	604-841-1017
Kurt Gieselman	Site Superintendent	kurt@clearviewdemo.ca		604-791-0077

Western Cleanwood Preservers Contact (Tenant):

Name	Position	Email	Phone	Cell
Jason Shupe	General Manager	jason.shupe@canwel.com	604-853-0420 ext 4	604-864-7724
Daryl Anderson	Operations Officer	daryl.anderson@canwel.com	604-6076894	604760-4700
Doug Frew	Divisional Controller	doug.frew@canwel.com	604-436-6617	

Vancouver Fraser Port Authority Contact (Landlord):

Name	Position	Email	Phone	Cell
Tony Meysen	Construction Project Manager	tony.meyesen@portvancouver.com	604-665-9204	778-233-7698
Catherine MacInnis	Senior Real Estate Manager	catherine.macinnis@portvancouver.com	604-665-9573	604-358-8910
Wylen Wong	Manager Real Estate	wylen.wong@portvancouver.com	604-665-9206	236-334-2134



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Appendix B – Environmental Plans

- a) Spill Response Plan
- b) Environmental Monitoring Plan
(Independent Environmental Monitor provision to be provided by the tenant applicant)



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Appendix C – Job Hazard Assessment



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Appendix D –Traffic Management Plan (To be coordinated with Operations)



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Appendix E – Waste Management Plan



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Appendix F – Site Plan Drawing



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Appendix G – Exposure Control Plans / Safe Work Procedures

- a) Exposure Control Plan – Construction Dust
- b) Exposure Control Plan – Drywall Cutting



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Appendix H – Pre-Demolition Hazardous Materials Survey Report



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Appendix I – Abatement Strip-Out Methodologies



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Appendix J – Demolition Outline Plan



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Appendix K – Noise Mgmt. Plan / Noise Assessment Project Score