



## District of North Vancouver Construction Impact Mitigation Strategy Guidelines

The District of North Vancouver is committed to ensuring that the disruptions to the community and traffic associated with construction activity are minimized. Mitigating the disruptive impact of construction-related traffic on District streets is an important part of the development and construction process. This document provides guidelines for developing a Construction Impact Mitigation Strategy (CIMS) that will be acceptable to the District.

A Construction Impact Mitigation Strategy will be required by the Municipal Engineer (or designate) when a development or construction project is expected to have an impact on:

- the mobility or safety of pedestrians, cyclists, transit, and vehicular traffic
- the typical functioning of the neighbourhood including interruptions and impacts to surrounding residents, businesses, and institutions from construction activity and worker/trades parking needs.

The objective of a CIMS is to provide safe passage for pedestrians, cyclists and vehicular traffic around a construction site with as little inconvenience, impact and delay as possible and with minimal on-street footprint. As such, every effort is to be taken to:

- Minimize delay on all roads. The CIMS is to include a review of traffic volumes and a plan with truck traffic restricted during peak times.
- Minimize interference or obstruction of pedestrian, bicycle, or vehicular traffic on all municipal roads and trails.
- Accommodate pedestrians with routing and signage.
- Make provisions for transit impact and mitigation plan (if required).
- Accommodate cyclists with routing and signage
- Address silt/dust control and cleaning from adjacent streets.
- Make provisions for litter cleanup / street sweeping adjacent to site.
- Mitigate construction impacts such as noise.
- Provide effective communication with affected stakeholders.

It is strongly recommended that the contractor responsible for the submission of a CIMS liaise with a traffic engineering consultant to facilitate the preparation of the report. A CIMS may be accepted by the Municipal Engineer (or designate) subject to satisfying the following requirements:

- The applicant should use these guidelines to ensure that all required basic elements are included in the plan. The level of detail for each basic element will be determined by the District and will be based on the complexity of the project, the context in which the project is taking place, and the volume and variety of traffic being affected.

- A plan that does not include the required information and/or does not include any additional data requested will be deemed incomplete and returned for revision and re-submittal. If, during the course of construction, the traffic management requirements change to reflect unanticipated construction activities, the applicant will submit an amendment to the CIMS.

Throughout the project approval process, the proponent will be required to submit components of the CIMS. As the details of how the project will be constructed become clearer, the more detailed the Construction Impact Mitigation Strategy will become; however **considering and addressing the general requirements and impacts early will facilitate the process and lead to a successful construction period.**

**The following stages of the approval process will require submission of some elements of a Construction Impact Mitigation Strategy:**

- 1) Preliminary Application – construction strategy**
- 2) Detailed Development Application – preliminary CIMS**
- 3) Building Permit Application – detailed CIMS** A completed Construction Impact Mitigation Strategy acceptable to the District is required before a building permit will be provided.

<b>Requirements for Construction Impact Mitigation Strategy Submissions</b>	
<b>Application Stage</b>	<b>Requirements</b>
Preliminary Application:	<p>Construction strategy that demonstrates how the project will be built in relation to the impacts to the public realm and roadway. It must include the following elements to demonstrate how the project will be built.</p> <ol style="list-style-type: none"> <li>Project summary/schedule               <ol style="list-style-type: none"> <li>Project building address</li> <li># of storeys below grade</li> <li># of storeys above grade</li> <li>Type of construction (i.e. wood frame/concrete/other)</li> <li>Project schedule (show duration, and overlaps)                   <ul style="list-style-type: none"> <li>▪ Demolition</li> <li>▪ Excavation</li> <li>▪ Foundation/parkade</li> <li>▪ Above grade structure</li> <li>▪ Finishes</li> <li>▪ Civil work</li> <li>▪ Landscaping</li> </ul> </li> </ol> </li> <li>Preliminary site plans for each stage of the development illustrating truck access/egress; truck circulation; concrete pumper(s), concrete trucks at pumper, trucks in waiting, and trucks washing out; deliveries, area for crane assembly and disassembly, site trailers, sedimentation tanks.</li> </ol>

	<ul style="list-style-type: none"> <li>• Demolition</li> <li>• Excavation</li> <li>• Foundation/parkade</li> <li>• Above grade structure</li> <li>• Civil Works</li> </ul> <p>These plans should show distances: property line to excavation limits, to existing road edge and any other dimension needed to demonstrate constructability.</p> <p>3. Preliminary plan and schedule (duration) for all off-site and civil works.</p> <p>4. Framework for coordination with other projects in the area. Refer to area development map included with preliminary package and/or available from the planner assigned to your project.</p>
Detailed Application	<ol style="list-style-type: none"> <li>1. Preliminary full CIMS</li> <li>2. Full project summary – see schedule A</li> <li>3. Refined version of preliminary application submission including site plans. <ol style="list-style-type: none"> <li>a. Additionally show how excavation ramp removal will be accomplished</li> </ol> </li> <li>4. Provide the following: <ol style="list-style-type: none"> <li>a. Strategies for road safety and efficiency including pedestrians, cyclists, and vehicles.</li> <li>b. Site stewardship plans including sediment, dust, litter, and noise control.</li> <li>c. Worker/trades transportation program</li> <li>d. Strategy for coordination with other projects in area</li> <li>e. Communication strategy</li> <li>f. Monitoring strategy</li> <li>g. Preliminary traffic management plans for required lane closures and all civil works</li> <li>h. List of all 3<sup>rd</sup> party utility works along with schedule and coordination plan</li> <li>i. Plan for residents and commercial tenants to move in.</li> </ol> </li> </ol>
Building Permit Application	A fully developed Construction Impact Mitigation Strategy that is acceptable to the District is required before building permit issuance.
Throughout Construction	<p>Two week look-ahead construction schedules to be submitted every 2 weeks.</p> <p>Highway Use Permit applications complete with Traffic Control Plans, and communication strategies for each activity affecting the public</p>

	realm.
	Updates as needed.

At every step of the permitting and construction process the applicant must consider how to mitigate the effect of construction traffic and construction activities on the neighbourhood in which the project is taking place and the larger transportation network of the North Shore.

The strategy should be developed with the following principles in mind:

**Safety:**

- Minimize risk for those around and near the project site as well as those entering or exiting the site by adhering to DNV standards and practices. Pedestrians and cyclists and/or other vulnerable road users may require special attention.

**Roadway efficiency:**

- Avoid or minimize delays on all roads especially during peak travel times. Major routes, bike lanes, sidewalks should remain open and allow for freely moving traffic.
- Transit routes require special attention and may allow for fewer options than streets without transit routes.
- The CIMS should include a review of traffic volumes generated by the project and provisions for truck traffic being restricted during peak travel times as applicable (generally 7am – 9am & 3pm – 6pm).
- Plan to minimize impacts to the boulevards, sidewalks, and roads surrounding the project.
- Develop plans for employee/trades parking, materials delivery and storage, and truck staging that optimize usage of the available space on site or other private property as applicable.
- Contain construction works, materials, and equipment on site.

**Communicate Early and Broadly throughout the Project:**

- Develop plans to communicate effectively with stakeholders including the neighbourhood, the travelling public, and other appropriate jurisdictions. For larger projects, a website and other social media tools are encouraged as effective communication tools.

**Coordination:**

- Coordinate activity with other major projects and events affecting the neighbourhood and the North Shore transportation network including roadways, transit and bike routes, highways and bridges.

**Stewardship:**

- Develop maintenance plan for temporary traffic control devices on impacted roads as well as to ensure affected roads are maintained to District of North Vancouver standards.
- Develop silt/dust control implementation plans
- Make provisions for litter clean up and street sweeping adjacent to the site.
- Commit to responding to neighbourhood concerns and to resolving and reasonable complaints in a timely manner.

<b>Components of a Complete Construction Impact Mitigation Strategy (CIMS)</b>	
Project Summary Sheet	See Schedule A
Project Details	<p>Describe the project from demolition to completion.</p> <ul style="list-style-type: none"> <li>• Provide description of the development: how many stories above and below grade, size overall</li> <li>• Provide primary on-site contractor's name, address, phone number as well as the 24-hour contact for the person who has decision making authority representing the applicant.</li> <li>• Provide schematic site plans showing the surrounding streets, sidewalks, bike routes, transit routes, etc. and show location of construction-related equipment and activities: i.e. trailers and sediment control system, site access/egress points, concrete pumping, deliveries, etc.</li> <li>• Describe work to be performed at each stage (in case of multi-phases projects, describe each phase) including civil works and 3<sup>rd</sup> party utility works.</li> <li>• For larger projects, provide a plan of how the site will be developed (i.e. east to west, north to south, etc.)</li> <li>• Provide sequence of construction operations.</li> <li>• Describe the required civil works including location and estimated duration.</li> <li>• Describe the location and length of any proposed on-street building zone.</li> <li>• Identify construction delivery and receiving area.</li> <li>• Identify off-street location for employee/trade parking.</li> <li>• Identify all areas that will be affected by construction activities.</li> </ul>
Schedule	<ul style="list-style-type: none"> <li>• Provide a schedule for the phases of work (i.e. demolition, excavation, foundation, above grade construction, finishes, civil works, etc.)</li> <li>• Describe when each phase will start and finish.</li> <li>• Provide duration of work for each phase including the completed project.</li> <li>• Note proposed hours of work activity on the project site and for off-site civil works.</li> </ul>

<p>Mobility Impact</p>	<p>Describe how the project will impact road users, and what measures will be provided to mitigate these impacts.</p> <ul style="list-style-type: none"> <li>• Describe the impact of construction activities on pedestrians, disabled persons, cyclists, transit service, emergency vehicles, trucks and general purpose traffic.</li> <li>• For each impact identified, describe the mitigation measure(s) that are proposed to minimize inconvenience and delay.</li> <li>• Describe the expected number of truck trips to and from the site per hour and per day.</li> <li>• Provide specific details about the number of trucks (inbound and outbound) that will be accommodated for queuing on-site, or evidence of agreements with other land owners if queuing is proposed at off-site locations, including information on ease of site access for trucks. Queuing on District roads will not be permitted.</li> <li>• Identify the times of day truck traffic is expected – heavy truck traffic should be outside peak hours</li> <li>• Identify major activities (i.e. major concrete pours, etc) and identify the estimated number of truck trips required.</li> <li>• Describe truck routing and communication plan for instructing contractors and subcontractors of truck routing.</li> <li>• Describe any unusual or oversized equipment expected and their parking and turning requirements associated with this equipment.</li> </ul>
<p>Community Impact</p>	<p>Describe the impact of the construction on the neighbourhood</p> <ul style="list-style-type: none"> <li>• For each phase of construction, provide an estimate of how many construction worker vehicles (including personal vehicles) will be generated by site activity and describe how that parking demand will be met. The applicant may be required to participate in and contribute to area transportation programs, and should undertake a review of nearby private parking lots that may be leased, provision of a vanpool/carpool program for construction workers, shuttle service to off-site parking, etc. On-street parking of construction worker/trades vehicles will not be permitted. Any expense resulting from parking arrangements will be borne by applicant.</li> <li>• Describe how noise, dust, litter and other nuisances will be controlled in compliance with relevant District bylaws.</li> <li>• Provide the expected hours of work. Identify any works that are likely to be so disruptive to traffic that they may need to be scheduled outside the hours of work permitted by the District’s Noise Bylaw. Any works that may need to be scheduled outside of the permitted hours will require a variance to the noise bylaw. This process takes a minimum of 4 weeks; therefore identifying this work as early as possible is</li> </ul>

	<p>advantageous.</p>
<p>Communication</p>	<p>Communication about construction activities and impacts is important to the District. Describe how you propose to inform neighbours and other stakeholders of anticipated project impacts.</p> <ul style="list-style-type: none"> <li>• Include a list and/or map describing affected agencies, businesses, residents and property owners that will be contacted and informed about the project.</li> <li>• Provide a sample letter/notice that will be distributed to stakeholders prior to the start of construction (see example provided).</li> <li>• Plan a communication strategy that will proactively provide up-to-date information to neighbours and other interested parties about construction and related traffic impacts. For example: e-newsletter for subscribers.</li> <li>• Provide plans to install traveler information signage sufficiently in advance of the construction area to enable travellers to choose alternative routes. Changeable message signs may be required for detours or traffic pattern changes.</li> <li>• Detail on-site signage displaying the on-site primary contractor’s contact information and telephone number for public inquiries.</li> <li>• Provide plan to notify the neighbourhood and the following agencies of traffic disruptions or other activities that may disturb the community: <ul style="list-style-type: none"> <li>○ Transit (Coast Mountain Bus Company) , emergency services (Police, Fire, Ambulance)</li> <li>○ Appropriate adjacent jurisdictions (i.e. Ministry of Transportation and Infrastructure, City of North Vancouver, Tsleil-Waututh Nation, TransLink, Squamish Nation, District of West Vancouver, etc.)</li> </ul> </li> </ul>
<p>Monitoring</p>	<ul style="list-style-type: none"> <li>• Develop a monitoring strategy to ensure that the plan is effective and that traffic impacts on District roads are minimized.</li> <li>• Provide updates to the CIMS as necessary, addressing any deficiencies and/or additional needs that arise during the project.</li> <li>• Depending on the size and/or location of the project, the District may require PTZ cameras (c/w modems) to be installed at strategic locations prior to the start of construction to monitor construction and traffic activity and ensure compliance with the CIMS and Highway Use Permit (HUP). District specification: Axis model Q6055-E PTZ cameras mounted in a Dotworkz enclosure.</li> </ul>
<p>Coordination</p>	<p>Projects that are taking place in close proximity to other developments and/or major infrastructure works must detail how their works will be coordinated with the other project(s) with the goal of minimizing impacts to the community and</p>

	<p>travelling public.</p> <p>A map indicating all projects in the area along with details about existing and proposed impacts to the community is required.</p>
<p>Highway Use Permits</p>	<p>For most projects, Highway Use Permits must be obtained before work may begin. A Highway Use Permit (HUP) must be obtained for each phase of the project. More than one activity that will impact the right of way (including road, sidewalk, and boulevard) may be permitted under the HUP issued for that phase – however each activity will require the submission of a Traffic Control/Management Plan for acceptance.</p> <p>For example, if the project requires the use of the roadway for loading and unloading, a building zone HUP must be obtained. If works will impact the roadway and/or typical traffic flow, a temporary street use HUP will be required. For each of these HUPs Traffic Control/Management Plans detailing the activities and right of way requirements must be submitted.</p>
<p>Traffic Management Plans &amp; Works Schedule</p>	<p>Detailed traffic management plans (TMPs) for each phase of the project and for each activity for which the highway will be occupied if traffic (vehicle, pedestrian, cyclist) will have to be disrupted to accommodate construction and civil works will be submitted for acceptance by the District. These plans will be developed by the primary contractor responsible for the works and will not be submitted for acceptance by the District until two weeks (ten working days) prior to the proposed commencement date.</p> <p>TMPs must be completed in accordance with the Workers Compensation Board Act – Section 18, the Traffic Control Manual for Work on Roadways – BC Ministry of Highways, and the Canadian Manual of Uniform Traffic Control Devices.</p> <p>Each TMP must also:</p> <ul style="list-style-type: none"> <li>• Provide primary contractor’s name, address, phone number including 24-hour contact information</li> <li>• Describe the works being undertaken</li> <li>• State the proposed dates for which it will be in effect and the total number of days the work is expected to take, and the hours of work for each day.</li> <li>• Describe the manner in which the neighbourhood and other stakeholders will be notified of the works</li> </ul> <p>For construction activities that require a full road closure and require transit service and/or emergency vehicle service to be rerouted, the applicant must provide written approval from the appropriate agencies on the proposed plan and mitigation measures.</p> <p><b>A schedule of the works that are expected to affect the public realm is required two weeks before commencement of the project and should be updated every two weeks or as required by the District.</b></p>

**Fines and Fees:**

The developer is responsible for all contractors, sub-contractors, trades and workers, suppliers, etc. associated with the site. Fines and fees are issued to the Developer.

Fee for authorized occupation of the District right-of-way for construction are \$0.25/m<sup>2</sup>/day (2018 rates)

Unauthorized occupation of any part of the District's highway (boulevard, sidewalk, and road) can result in a number of fines and fees.

Under the Street and Traffic Bylaw the fines for working without a Highway Use Permit or outside the terms and conditions of a Highway Use Permit are:

- \$500 on streets classified as major arterial, minor arterials, collectors
- \$250 on streets classified other than as above,

Operating contrary to the terms and conditions of Highway Use Permits: \$250

Creating construction noise outside the allowable hours: \$500/60 minute period or portion thereof.

Additionally a Special Highway Use Permit Fee may be applied for each incident where there has been unauthorized interference with the movement of traffic or any activity contrary to the terms and conditions of the accepted Construction Impact Mitigation Strategy and/or Highway Use Permit.

- 1st incident = \$1500 for 12 hour period
- 2<sup>nd</sup> incident = \$3000 for 12 hour period
- 3<sup>rd</sup> and subsequent incidents = \$ 5000 for 12 hour period

## Schedule A

### Project Summary Sheet:

Building site address		
# of storeys below grade		
# of storeys above grade		
Type of construction (i.e. concrete/woodframe)		
Total number of months to complete		
Contractor		
Project Manager	Name	
	E-mail	
	Phone	
On-site contact	Name:	
	Cell	
	E-mail	

### Site Generated Traffic

Phase	Dates/ Duration in months		# of Trucks/ day	# of Workers	# of off-street parking stalls
Demolition					
Excavation		m <sup>3</sup> removed:			
Foundation/ Parkade		m <sup>3</sup> concrete:			
Above Grade		m <sup>3</sup> concrete:			
Finishes					
Landscape					
Off-site Civil					

**Schedule B  
Sample Letter**

**Temporary Street Use  
Location  
Time and Dates**

Date

Dear Neighbours of (address and name of project site)

This notice is to inform you of some upcoming work that may affect your daily routine.  
(Provide details of the activity, traffic pattern change, or parking clearance)

This is necessary to support the construction of the building at \_\_\_\_\_. *Or install/repair the (underground utilities, road, sidewalk, landscaping, lighting etc.) adjacent to the (Address).*

Impacts to vehicle traffic can be expected during week day business hours from (date) to (date).  
(include other impacts – parking, sidewalk usage, etc.)

During construction there will be traffic diversions, parking restrictions and road closures. The actual work site will be kept as compact and tidy as reasonably possible. The workers will cooperate with the residents and businesses to minimize the impact the work will have. Please see map of area that will be affected on the reverse.

We apologize for any inconvenience the work may cause and thank you for your understanding and cooperation.

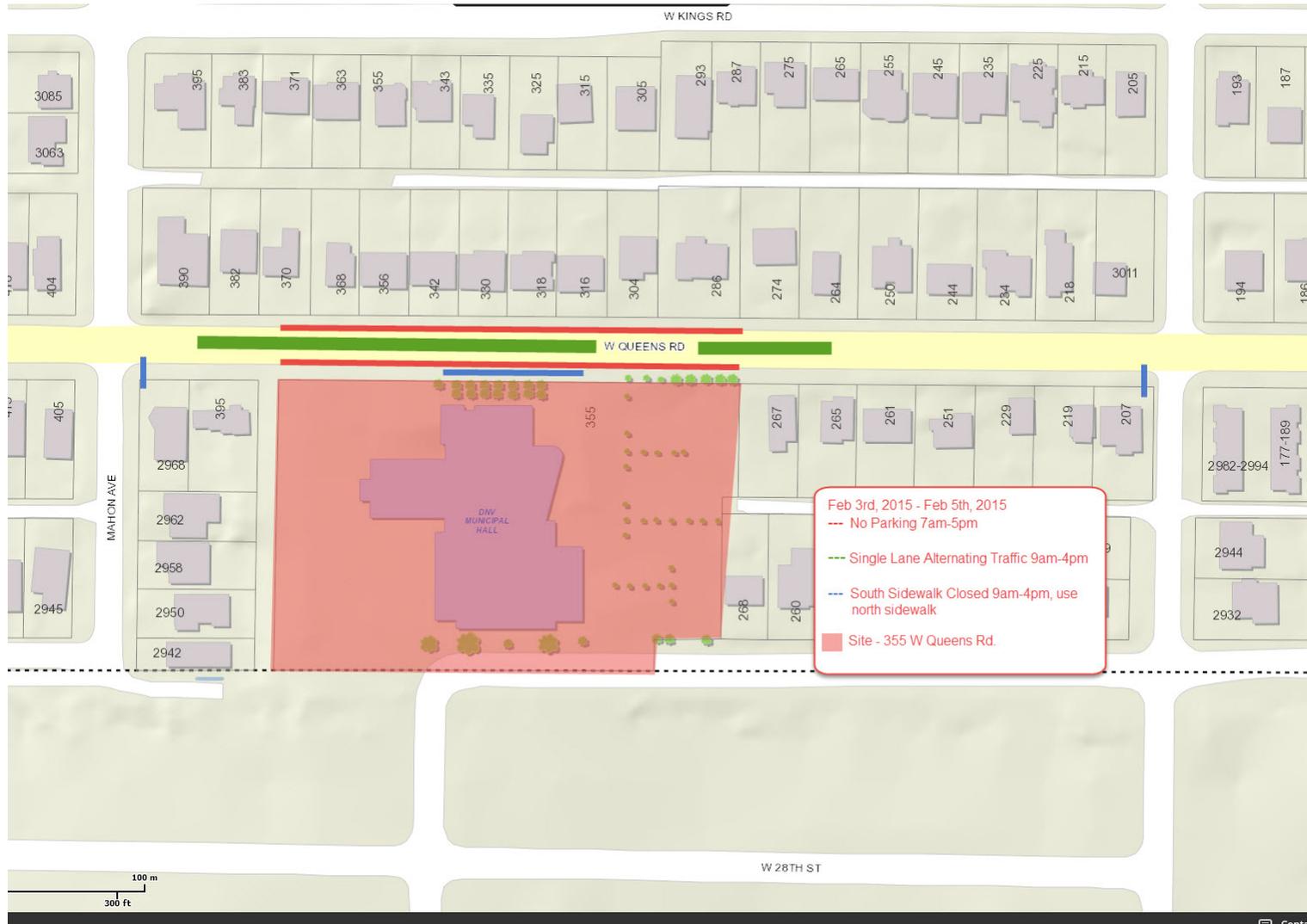
Please contact the undersigned at (phone number) or by e-mail at () if you would like to discuss this matter in further detail.

Yours truly,  
(Applicant)  
(Address, phone number, e-mail)

cc: RCMP  
District of North Vancouver Fire Services  
District Hall – Transportation Department  
Coast Mountain Bus Company (*when on a transit route*)

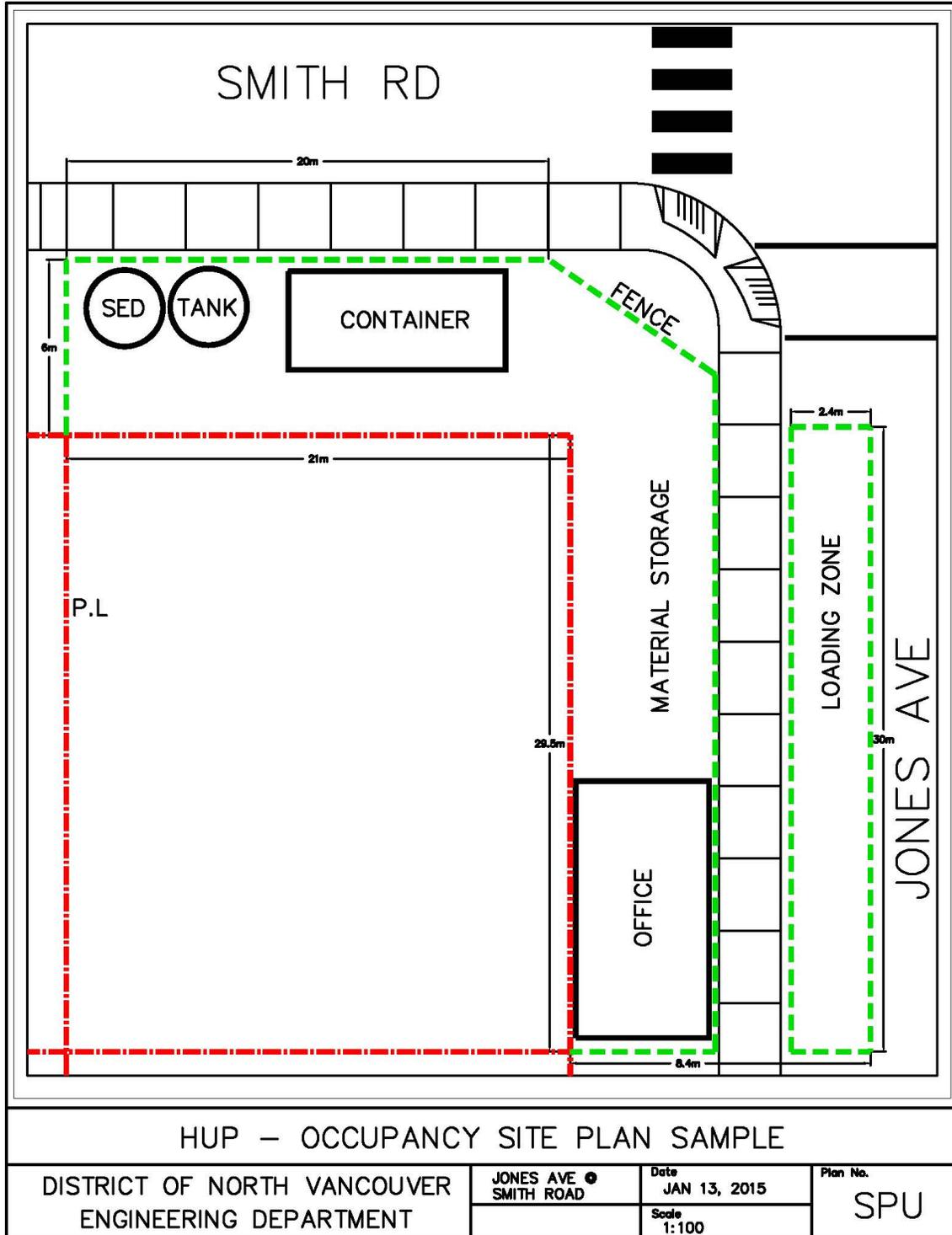
# Upcoming Traffic Pattern Change

Project: District Hall Replacement  
Address: 355 W Queens Road



**Schedule C**

Site Map Sample – to be submitted by contractor a minimum of 2 weeks prior to requested start date



Printed : Jun 09, 2015