

# MILLS DEVELOPMENT

Spring Garden Road,  
Birmingham Street & Queen Street

Excavation and Construction

Prepared by Geoff MacLean, P.Eng.

Job No. 35587

## CONSTRUCTION MANAGEMENT PLAN

REVISION #	DATE	ISSUED FOR REVIEW
		DESCRIPTION
0	APR 2021	



# SDMM

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This CMP was prepared by G.K. MacLean, P.Eng.

in consultation with the developer, contractor, traffic control company and HRM.

## Section 1: Introduction

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### 1.1: Project Description and Objectives

Westwood Developments is planning to redevelop the lands located between Spring Garden Road, Queen Street and Birmingham Street known as the Mills Block due to a former building use. The land previously housed six buildings situated on 8 lots which will be consolidated. The planned development will be a 7 level 180-unit multi residential building with a few 2 level townhomes, 31,520SF. of commercial space on 2 levels and 2 levels of underground parking. This CMP has been prepared to address the excavation, services and building construction.

As noted, the construction site is located on the block of Spring Garden Road between Queen Street and Birmingham Street. Across to Birmingham Street, west of the project is a commercial building housing businesses' such as Sleep Country and the Bank the Montreal, to the north a mixture of commercial buildings such as the Bond Building, to the east Halifax Central library and to the south the MaryAnn, a mixed residential and commercial building. All neighboring properties will remain undisturbed throughout construction and all neighbours will be notified and updated on construction ahead of time.

Where the building is planned to be set at the street line and where HRM is proceeding with their adjacent Spring Garden Road Streetscape Project while the Mills Block project proceeds, project encroachments are planned in 3 phases.

- Phase 1 – During site excavation, we anticipate the project requiring the sidewalk hoarded off on the adjacent streets while a portion of Queen Street be utilized as a layby accessing the project site. Along Spring Garden Road, a temporary protected on street sidewalk for pedestrian use around the project is planned, while on Birmingham pedestrians will be encouraged to use the sidewalk opposite the site with a temporary protected on street sidewalk positioned in front of Banc's construction site. Pedestrians will be encouraged to cross Birmingham Street at an unmarked crosswalk opposite the Mary Anne Building's parkade entrance. This will result in a narrowed street on Birmingham while maintaining one-way traffic. Where on Queen Street with the closed sidewalk and on street construction truck layby; pedestrians will be encouraged to cross Queen Street to utilize the sidewalk opposite. This will require an altered road centreline on Queen Street while maintaining two-way traffic on Spring Garden Road and Queen Street.
- Phase 2 – Once HRM's Spring Garden Road project begins the protected-on street pedestrian sidewalk on Spring Garden Road will be removed to make way for this street work. We also anticipate that Banc's building project will no longer require their sidewalk encroachment on Birmingham Street. This will open the sidewalk opposite the site and allow for a second site access with layby on Birmingham Street. We are anticipating concrete operations will be stationed at both the Birmingham and Queen Street laybys. With the sidewalk open opposite the site, the layby will be positioned to maintain one-way traffic on Birmingham Street.
- Phase 3 – After HRM's Spring Garden Road improvements have been completed we understand that a protected on-street sidewalk will be required along Spring Garden Road. This will allow pedestrian traffic around the encroachment while maintaining two-way traffic along Spring Garden Road.

This CMP document is intended to be an evolving document to help guide the project team to mitigate impacts to the adjacent community before they arise and to address unforeseen issues. SDMM, together with the developer, contractor, and traffic control company, have prepared this Construction Management Plan (CMP) following HRM's

CMP (2020) guidelines and administrative order (2018-005-ADM) in an effort to reduce potential negative impacts on the surrounding community, due to construction activities for this project.

The most up-to-date version of this document will be kept on-site at all times during construction. Should ownership or contracting services change throughout the course of this project, HRM will be notified immediately, and new parties will be required to comply with the approved CMP in writing.

## 1.2: Project Contact Information

The project team for the proposed development consists of:

Role	Name	Contact	Address	Phone
Developer	Westwood Construction Limited	Jamie Haddad	5881 Spring Garden Road, Suite 100, Halifax, NS, B3H 4S3	(902) 209-3235 24 Hr Emergency Contact
Site Contractor	Dexter Construction	Nick Wilson	Rock Lake Drive, Bedford, N.S., B4A 3Z2	(902) 209-2902
Traffic Control Company	Eastern Traffic Services	John Smith	Rock Lake Drive, Bedford, N.S., B4A 3Z2	(902) 209-2902
Rodent Control Company	Rentokil Pest Control		51 Duke Street, Bedford, NS B4A 2Z2	(902) 835-2304

## Section 2: Project Schedule and Logistics

The following is a brief summary of anticipated major project milestones broken down by phase:

### 2.1: Schedule

Project Phase	Start Date	End Date	Time Period
Rodent Control Program	Feb 15, 2021	-	Jul 1, 2021
Demolition	complete	-	complete
Excavation	Mar 1, 2021	-	Jul 31, 2021
Substructure	Jul 1, 2021	-	Dec 1, 2021
Superstructure	Dec 1, 2021	-	Jun 15, 2023
Flat Works	May 1, 2023	-	Jun 1, 2023
Service Install & Abandonments	Aug 1, 2021	-	Aug 30, 2021

### 2.2: Key Dates

- Take-over of encroachment: Mar 1, 2021
- Finish encroachment: April 1, 2023
- Duration of encroachment:
  - Phase 1 March 2021 -July 2021
  - Phase 2 July 2021-December 2021
  - Phase 3 December 2021-April 2023
- Temporary Road Closures:
  - Crane Installation July 17-18, 2021
  - Service work August 7-8, 14-15 & 28-30 2021 (weekends only)
  - Crane removal April 22-23, 2023

### **2.3: Hours of Work**

Work will generally take place during normal working hours as outlined in HRM's Noise By-Law and Traffic Control Manual Supplement; these are noted below.

• Monday to Friday:	7:00 a.m. – 9:30 p.m.
• Saturdays:	8:00 a.m. – 7:00 p.m.
• Sundays & Statutory Holidays:	9:00 a.m. – 7:00 p.m.
• Servicing Work:	(Weekend only)

Although work is not expected to be required outside of the times listed above, if, for any reason, work is anticipated to be required outside of these hours, the contractor will apply to HRM for approval 5 business days (minimum) in advance of such work and obtain approval prior to proceeding. It is noted that HRM's Noise By-Law cannot be altered without HRM council approval; work must adhere to the Noise By-Law.

## **Section 3 – Relevant Regulations & Guidelines**

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### **3.1: Occupational Health & Safety Regulations**

This CMP shall be utilized in agreement with all applicable Provincial and Federal Occupational Health and Safety Regulations. At a minimum, construction activities must at all times meet the standards of:

- a) National Building Code of Canada, as adopted and modified under the Building Code Act and the Nova Scotia Building Code Regulations made under that Act;
- b) Nova Scotia Occupational Health and Safety Act, and the Nova Scotia Occupational Safety General Regulations made under that Act;
- c) The Transportation Association of Canada (TAC)'s Manual of Uniform Traffic Control Devices for Canada (MUTCD); and
- d) Nova Scotia Temporary Workplace Traffic Control Manual (NSTCM).

### **3.2: Municipal Regulations & Guidelines**

In addition to the Provincial and Federal standards referenced in Section 3.1, this CMP shall be utilized in agreement with and meet, at a minimum, the standards of all relevant municipal by-laws including, but not limited to, the following:

- a) HRM Design Guidelines
- b) HRM Standard Details
- c) S-300 Streets;
- d) E-200 Encroachments;
- e) B-201 Building;
- f) N-200 Noise;
- g) T-600 Trees;
- h) S-900 Controlled Access Streets;
- i) T-400 Truck Routes;
- j) W-101 Discharge into Public Sewers;
- k) B-600 Blasting; and
- l) HRM TCM Supplement.
- m) G-200 Grade Alteration and Stormwater Management
- n) Admin Order 2018-005-ADM regarding encroachments
- o) Admin Order 2020-010-OP regarding stormwater management standards for development activities

## Section 4: Vehicle Management

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Prior to any construction activity, all temporary workplace traffic control devices and signage will be in place as per the Nova Scotia Temporary Workplace Traffic Control Manual (latest edition). The traffic control company will install the signage and ensure that they are maintained throughout the project. This project's Traffic Control Plans (TCPs) are listed in the Appendix.

### 4.1: Vehicular Traffic Control

Various Traffic Control Plans (TCP) has been prepared by the traffic control company and is provided in the Appendix.

We are proposing an altered centreline along Spring Garden Road during phase one and on Queen Street throughout all phases of construction. Two-way vehicular traffic will be maintained along Spring Garden road and Queen street. One-way vehicular traffic will be maintained on Birmingham street with a proposed narrowed street construction activity. Only during installation of the tower crane, service work, and removal of the tower crane are temporary road closures anticipated, with stop and go traffic controlled by on site personnel. These road closures are anticipated to be short duration during pipe work installation, crane installation and crane removal while respecting peak hour traffic restrictions.

Please refer to the appendices for required traffic control plans.

### 4.2: Haul Route and Staging Areas

The truck Haul Route Plan has been prepared by the traffic control company and is provided in the appendix. The selected route is intended to minimize traffic congestion and maximize pedestrian safety. During the excavation and construction vehicles will enter and exit the site at the gate locations or removable fence which will be clearly marked for function.

Material and concrete deliveries shall be contained within the encroachment area. We anticipate delivery trucks backing into the encroachment via the south gates on Birmingham and Queen Streets. Please refer to the concrete delivery schematic within the appendix.

### 4.3: Vehicular Traffic Notifications

Should any traffic disruptions be required, notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of vehicular traffic closures. Refer to sample notification letter in the appendix.

### 4.4: Emergency Vehicles

In the event of unforeseen emergency situations, the site will remain accessible to emergency vehicles at all times.

### 4.5: Parking

Existing metered on street public parking spaces will be removed adjacent to the project on Birmingham and Queen Streets. On street parking will not be affected by these phases of the project.

It is noted that passenger vehicles are not permitted to park within any encroachment areas.

To minimize parking requirements in adjacent neighbourhoods, on-site workers will rent parking spaces from the adjacent parkade structures and workers will be encouraged to carpool or rely on public transit. Once the project's underground parkade has been constructed, some on-site workers will park in the parkade.

No new public parking is proposed as part of this project resulting in a temporary public parking net loss.

#### 4.6: Bus Stops

Bus service that travels along Spring Garden Road will not be affected by this project, and there is no bus service that travels along Birmingham and Queen streets in the vicinity of the project site.

#### 4.7: Hazard Assessment

A vehicular and pedestrian hazard assessment is provided in the appendix. Any additional site hazards identified or encountered after work has commenced will be added to this list. All personnel on-site will be required to review this list and encouraged to identify additional potential hazards and hazard mitigation methods.

### Section 5: Pedestrian Management

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A Pedestrian Management Plan (PMP) has been prepared by the traffic control company and is provided in the appendix.

Throughout excavation and construction, the project will close all sidewalks and a portion of the street lane on Birmingham and Queen Streets in front of the development. This is to ensure that limits of excavation and building construction and deliveries are a safe distance from pedestrians with an alternate sidewalk across the street access at the intersections of Queen, Clyde and Birmingham. Temporary protected on-street sidewalks will be used to maintain pedestrian traffic around the project.

#### 5.1: Pedestrian Protection

Pedestrians will be protected by distancing them from the project, F-type concrete barriers with plywood and open rigid fencing mounted above shall delineate the encroachment area. F-type concrete jersey barriers will also be positioned on the street demarking the protected on-street sidewalk separating the pedestrians from vehicle traffic. Refer to the appendix for examples of the barriers.

#### 5.2: Pedestrian Safety

Pedestrian safety will be maintained by implementing appropriate signage as shown on the PMP. All navigation and safety signage indicating alternative sidewalks and potential hazards will be inspected and maintained regularly.

#### 5.3: Pedestrian Traffic Notifications

Notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of pedestrian traffic impacts.

#### 5.4: Visually Impaired Persons

In keeping with Canadian National Institute for the Blind (CNIB) requirements and as outlined on their 'Clearing Our Path' website; various items will be incorporated into the pedestrian management signage and barriers. Such as, high visibility contrasting colours with appropriate font types (mix of upper and lower-case lettering), font sizes (between 16mm to 51mm) and sign colours (orange background with black lettering or white background with black lettering).

The contractor will use bright orange sawhorse barricades complete with bold-font signage to identify sidewalk termination points. Sawhorse barriers will incorporate lower cross members, painted and marked consistent with the rest of the sawhorse, these added cross members will be placed near the ground to aid visually impaired persons using a cane. Reflective tape will also be placed on the ends of fencing, hoarding, sawhorse barricades, and concrete barriers to help delineate pedestrian routes and disruptions. Signage and tape colours will vary but will comply with the colour/brightness contrast as outlined by the CNIB website; examples are black/white, orange/black or dark red/white combinations.

## **5.5: Accessibility**

High visibility signage will be used to assist pedestrians to easily navigate through the pedestrian route.

## **5.6: Hazard Assessment**

A vehicular and pedestrian hazard assessment is provided in the appendix. Any additional site hazards identified or encountered after work has commenced will be added to this list. All personnel on-site will be required to review this list and encouraged to identify additional potential hazards and hazard mitigation methods.

## **5.7: Pedestrian Management Plans Rendering (PMPR) Signage**

The need for a rendered map displayed for pedestrians showing the detoured pedestrian routes are anticipated for this project given that the commercial nature and typical pedestrian volumes in this area.

## **5.8: Pedestrian Detour Wayfinding Signage**

The need for pedestrian wayfinding signage directing pedestrians to adjacent businesses are anticipated for this project given the location.

# **Section 6: Encroachments & Disruptions**

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For public safety during site excavation and building construction we are proposing that the project compound incorporate the public sidewalk directly in front of the project site and a portion of the street lane on Queen Street (Phase 1) and Birmingham (Phase 2). These will work in conjunction with the neighbouring construction projects; once HRM's Streetscaping project starts we understand the street work will require this area. Similarly, we understand that Banc's Birmingham project will reopen the sidewalk opposite the project site. This will move pedestrians to the opposite side of the street. In the meantime, temporary protected on street sidewalks will allow pedestrians to pass around the project on Spring Garden Road and Birmingham Street. The encroachment is planned to be delineated by interlocking concrete jersey barriers complete with a combination of solid plywood fencing and open rigid fencing at intersections. Concrete jersey barriers will delineate the on-street sidewalks.

Throughout the project, fencing will not obstruct vehicle sight lines by using open fencing in these areas.

Should any utility or traffic disruptions be required, the contractor will first apply to HRM for approval, a minimum of five (5) business days in advance of such work and will then notify neighbours of these disruptions in a timely fashion.

## **6.1: Demolition**

The site's buildings were previously demolished prior to lot consolidation. This CMP does not speak to demolition.

## **6.2: Site Excavation**

This includes the excavation and removal of common site material. If bedrock is found, the contractor will apply for a blasting permit and adhere to the HRM blasting by-law and conditions of the blasting permit. Alternatively, if a blasting permit can not be obtained the site's bedrock will be broken by a series of rock breakers to reach footing elevation.

## **6.3: Site Services Connection**

This includes installation of new water and sewer laterals to their respective mains as well as decommissioning existing laterals which will be abandoned and capped. The service installs will require modifications to the encroachment with temporary workplace signage incorporated (refer to the Service Installation Traffic Control Plans (TCP) in the appendix), we are anticipating that the street will need to be closed to through traffic during these service installs. The target dates for this work are provided in the "Key Dates" section above with time of installations adhering to the Noise By-

Laws noted above. The intent will be to complete this servicing work and reinstate the street as quickly as possible in order to minimize disruptions to the public. It is anticipated that weekend work may be required by Halifax Water for mainline tie-ins and abandonments.

Before scheduling site services connections, the contractor will notify all neighbouring properties, of the intended timeline for this work. A sample notification letter is included in the appendix.

The contractor intends to reinstate the street cut during the season of work. It is noted that street cuts cannot be left gravel or open. HRM reinstatement specifications must be met, and the travel way must be hard surfaced prior to reopening to the public. Asphalt, concrete curb, and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 31<sup>st</sup> or prior to May 1 in which case permanent reinstatement will be completed by June 15.

#### **6.4: Construction Management Plan Element Inspection and Maintenance**

Construction management plan elements will be inspected daily to ensure continued adherence to this CMP. Any deficiencies identified will be reinstated immediately. A CMP's TCP & PMP inspection report summary will be completed for the project, including information on what maintenance activities were conducted. This report must be kept on site at all times and be available to HRM upon request.

#### **6.5: Changes to the Construction Management Plan**

All departures from the CMP regardless of the significance must be submitted to the Municipality 10 days in advance for review and approval. Any required changes or modifications to the approved CMP will be submitted to HRM for review and approval prior to implementation.

### **Section 7: Environmental Factors**

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#### **7.1: Damage to HRM Infrastructure**

Existing sidewalks within the encroachment area will be completely replaced. It is anticipated that sidewalks across the street will not be impacted by excavation or other construction activities. However, while efforts will be made to avoid damage, it is anticipated that additional portions of existing curbs, gutters, and sidewalks may become damaged during the construction process which would require repairs or replacement. Pending HRM's review prior to and after construction and subject to damage due to construction activities, the landowner acknowledges that items may require to be fully replaced rather than repaired. The landowner also acknowledges that any costs incurred to repair or replace this public infrastructure are the responsibility of the owner. For reinstatement timeline requirements, it is noted that asphalt, concrete curb and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 31<sup>st</sup> or prior to May 1 in which case permanent reinstatement will be completed by June 15 of the following construction season.

#### **7.2: Protection of Trees**

There are existing street trees on Spring Garden and Birmingham in the public right-of-way directly adjacent to the project site. These HRM street trees are proposed to be removed as part of this project with new reinstated in consultation with HRM Urban Forestry. It is noted that HRM street trees shall not be touched prior to approval and/or compensation agreements between the developer and HRM Urban Forestry are in place. Adjacent street trees are to be protected during construction in accordance with the HRM Tree Bylaw (T-600). Refer to HRM tree protection detail in the appendix.

### **7.3: Line Painting and Temporary Crosswalks**

A temporary altered centerline is proposed on Queen Street and a portion of Spring Garden Road for this project. Refer to the line painting plan in the appendix.

### **7.4: Street and Right-of-Way Cleaning**

The portion of public street adjacent to the project will be cleaned daily of any debris from trucks and silt, dirt, or rock that migrates beyond the encroachments. A sweeper truck will be utilized as required. Rock pads will be installed and maintained at all site entrances behind the curb line to knock dirt free from truck tires with aim to reduce off tracking of site soils. Where the developer plans to utilize the roadway for their encroachment the developer is responsible to clear snow from the street side of the jersey barriers.

### **7.5: Protection from Inclement Weather**

To protect the public from construction debris during inclement weather, the project site will be enclosed by fencing complete with dust control covering, upper levels of the new building will be regularly cleaned, and loose items throughout the project site will be secured when not in use.

### **7.6: Storm Water Management**

During construction, nearby catch basins may be fitted with filter fabric to prevent debris from entering the storm system. Stormwater collected inside the project site will be directed to temporary stormwater settling ponds situated within the building footprint to allow clean water to be pumped into the existing public sewer systems in accordance with HW regulations and HRM By-law W-101 complete with appropriate fees to Halifax Water (HW). Sediment ponds may be shifted and positioned as desired by the site contractor during mass excavation however will generally be placed in localized low points within the building excavation.

### **7.7: Noise, Dust and Emission Control**

The contractor will at all time adhere to the HRM Noise Bylaw (N-200). No work will take place on the project site outside those hours identified in section 2 of this report.

Dust mitigation for this project will be achieved using rock pads for trucks exiting the site. A water truck and sweeper truck will also be utilized to help prevent dust from becoming airborne and, when required, calcium may need to be used to mitigate dust migration. Additionally, mesh on the inside of the fencing will help to contain any airborne dust inside the site.

Breaking of rock may occur for footing, foundation and to clean the surface of the rock face wall. Mesh will be used on the inside of all construction fencing to mitigate dust control.

All construction vehicles will be required to use the loading area for parking and idling to keep exhaust emissions within the construction zone. Vehicles will be staged so that idling will not occur for more than 3 minutes at a time.

As indicated above, all work shall be completed in accordance with the HRM Noise By-Law.

### **7.8: Rodent Control**

Rodent movement increases during construction activities. The owner will engage a rodent control company, to utilize the established Rodent Control Plan (RCP) to help mitigate rodent movement prior to and during construction. The RCP applies to all project phases with the goal of preventing movement of rodents off-site to find safe refuge in adjacent areas. The RCP will consist of a baiting and monitoring program. Bait stations (traps) will be placed as outlined in the NPMA Pest Management Standards for Food Processing & Handling Facilities.

The RCP will be engaged two weeks prior to the commencement of site excavation to help to lower the number of active rodents in the project area. Bait stations will be positioned along existing buildings and fence lines prior to excavation. Bait stations will be positioned along the edges of the project and secured in place using wooden stakes (for open sodded and dirt locations), weighted patio stones (behind walls and on paved areas), and zip-ties (fixed to fences) as per typical industry standards.

Refer to the appendix for a copy of the Rodent Control Plan.

## Section 8: Site Protection & Hoarding

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### 8.1: Barriers and Fences

The encroachment will be delineated using concrete F-type jersey barriers complete with rigid fencing and plywood secured to the jersey barriers, total height of concrete barrier and fencing structure will be 1.8m or 6ft as per the noted administrative order. This fencing will be open or covered with plywood of high quality which will extend a minimum 3m from the public right-of-way. This plywood will block passersby or tourists view of the construction site. Construction traffic will utilize the proposed gates, gate will not be screened for safety reasons.

Along the private sidelines where non-vehicular traffic is present, the hoarding will be delineated by weighted modular 1.5m (5ft) high fencing or existing fencing where it is at least 1.5m tall. All fencing will have dust control mesh and must be anchored down to prevent unintentional movement or overturning due to snow or wind loads. It is noted that this fencing shall **not** be anchored to the sidewalk, **nor** shall the legs of the modular fencing extend onto the sidewalk as this creates an unacceptable tripping hazard which must be avoided. Throughout the project, fencing will be situated to not obstruct vehicle sight lines.

The F-type barriers and fencing that define the encroachment will adhere to the Encroachment Plan which is to scale includes dimensions and can be found in the appendix. These areas can be measured for the administering of applicable fees. Encroachment areas and fees will be based on the areas within the public right-of-way enclosed by the barriers and fencing.

It is noted that barriers can not be installed with a blunt end facing traffic, jersey barriers must be angled or tapered facing traffic to avoid this blunt end facing traffic.

Installation of F-Type concrete barriers, fencing and plywood covering will take place during regular working hours as noted above. This work will be scheduled by the contractor after the HRM's pre-construction meeting has been held. HRM will coordinate this pre-construction meeting; the developer, contractor and traffic control company will attend this site meeting. During the process of erecting and tearing down the traffic barriers, fencing and plywood covering defining the encroachment, traffic control elements will be implemented as per the Traffic Control Plan(s) in the appendix. All work and any traffic interruptions will be coordinated by the contractor who will notify HRM a minimum of 5 business days before work is scheduled to begin.

### 8.2: Snow Removal

The developer will be responsible to remove snow and ice as required to ensure that emergency access is maintained to the project site, this includes fire hydrants. The contractor will not dump snow or ice onto adjacent property and will truck snow off site as required to prevent the unsafe build-up of snow piles. The contractor will clear snow from outside the jersey barriers to keep the edge of the vehicle travel lane free and clear of snow and ice build up.

### **8.3: Gate Access and Egress**

The site will be accessible through gates. These gates are the only locations that will receive equipment/materials during construction, gates will remain closed and will be locked at all times after work hours. In cases of emergencies, on-site workers will exit the project site through these gates. These gates will remain unlocked at all times when workers are on site in case of emergency allowing unrestricted emergency response units access to the site.

Construction access gates are planned to be stationed at each end the encroachment to facilitate deliveries. Gates are to swing into site, remain closed when not in use and locked after hours. Gates are anticipated to be aligned to allow for traffic flow through the encroachment in line with street traffic on Birmingham Street.

Any existing fire hydrants located adjacent to the site will remain protected from construction activities. These fire hydrants, along with the existing and proposed fire department connections (Siamese connections) will be accessible to firefighters throughout all phases of the project. Adjacent existing hydrants and fire department connections are not anticipated to be affected by construction.

### **8.4: Hoarding Aesthetics**

The site hoarding will resemble that shown in the appendix; advertisements and banners will be incorporated to facilitate encroachment fee reductions.

### **8.5: Sight Lines**

Rigid fencing, plywood and signage will be installed as per the CMP drawings such that vehicle sight lines are maintained around corners.

### **8.6: Project Information and Contacts**

To encourage communication between the project team and the public, contact information will be provided on Project Information Boards; these will be posted prominently around the project site on the fencing; refer to the appendix for a copy of the Project Information Board and the Encroachment Plan for the planned locations. Refer to the signage specification within the appendix describing the required size, materials, mounting hardware, etc. of these signs.

## **Section 9: Lifting, Hoisting, and Crane Operations**

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### **9.1: Crane Use Overview**

This project will incorporate a tower crane, this crane will be stationed within the project site and will be operated under the direct supervision of a licensed crane operator employed by the formwork contractor. The approximate location of the crane tower is shown in the appendix.

It is anticipated that the crane will be assembled and disassembled from within encroachment area.

The crane swing will extend over neighbouring properties the developer will notify these property owners prior to extending the crane over their properties. Refer to the appendix for crane information.

In addition, concrete pump trucks, boom trucks and/or mobile crane trucks will be brought to site to accommodate lifting and hosting materials to upper levels. These trucks will be stationed within the encroachment (see concrete delivery schematic within the appendix) and will be operated under the direct supervision of a licensed crane operator.

Please note at no times shall a crane lift loads over the public realm, roads, sidewalks, etc. outside the encroachment area.

### **9.2: Transport Canada and Nav Canada Regulations**

There are two registered aerodromes in the Halifax region: Halifax International Airport and Canadian Forces Base Shearwater Airfield. According to Transport Canada regulations, the project site is outside of the lands to which regulations for these two aerodromes apply.

### **9.3: Aerodromes**

There are several heliport approaches in the Halifax region; both Emergency Hospitals (QEII and IWK) as well as Point Pleasant Park. Given the location of the project site relative to these various approaches we understand Transport Canada notice does not apply.

## **Section 10: On-Site Safety and Security**

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### **10.1: Site Safety and Security Overview**

The contractor will adhere to all Occupational Health & Safety requirements throughout the completion of this project. At a minimum, the following safety protocols will be utilized to further enhance site safety and security:

- a) All workers will be required to have proof of up-to-date safety training;
- a) Personal protective equipment (PPE) will be required for all personnel on site;
- b) Adequate signage will be placed outside the hoarding, which will warn of hazards that may exist;
- c) Gates will be locked and the perimeter fencing secured to provide security against public access during off work hours and will be monitored during operation;
- d) Hoarding will clearly state “No Trespassing – Construction Personnel Only” & PPE requirements will be clearly identified (e.g., “Hard Hats and Safety Footwear Must Be Worn Beyond This Point”);
- e) Regular safety inspections will be conducted to ensure suitability of hoarding and other safety devices;
- f) Emergency contact information to be prominently posted as per the Project Information Board.

### **10.2: Material Handling: Loading, Unloading, Delivery and Storage**

The contractor will adhere to the procedures stipulated in the Haul Route Plan for delivery of materials. Delivery vehicles will use the designated gates for entry and exit. Timing of deliveries will be coordinated to have the least possible negative impact on regular traffic. The staging and delivery area will be coordinated by the delivery companies and site personnel, trucks will be housed within the encroachment as it is planned to accept two concrete delivery trucks side by side within the hoarding limits.

### **10.3: Emergency Access & Egress**

The site will be accessible through gates to facilitate construction vehicle access. This gate is the only locations that will receive equipment/materials during construction. In cases of emergencies, on-site workers will exit the project site through these gates. These gates will remain closed and unlocked at all times when workers are on site, in case of emergency allowing unrestricted emergency response units access to the site. Gates will be locked and secured afterhours to provide security against public access during off work hour. Emergency contact information will be posted on project information boards surrounding the site, refer to the encroachment plan for details.

#### **10.4: Security Site Lighting**

Security site lighting is not required for this project.

#### **10.5: Smoking Areas**

On site smoking areas will not be provided as this will be a smoke-free site.

#### **10.6: Fire Suppression Systems**

Adjacent existing fire hydrants will remain outside the project area and will be protected from construction activities. These fire hydrants, along with any existing fire department connections (Siamese connections) will be accessible to firefighters throughout all phases of the project.

The proposed fire department connections are not active at this stage of the project. These are not available for fire department use until after the building's water supply lines have been installed, tested and commissioned by the water commission, similar with the fire suppression system. This system will not be active until after the building is near complete and the encroachment fencing has been removed.

### **Section 11: Pre-Construction Consultation & Meeting**

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#### **11.1: Pre-CMP Community Consultation**

Due to the current pandemic, the developer will forego the community consultation meeting. A construction notification letter will be delivered to the properties neighbouring the construction site as well as HRM staff, notifying them of the expected work with contract information for questions and feedback. As part of this notification the surrounding community and businesses will be offered to sign up for a monthly construction project notification from the development. It is understood, HRM requires a confirmation letter from the applicant confirming delivery of notification letters to affected residents. A map indicating these properties has been included in the appendix.

#### **11.2: Project Information and Contacts**

To encourage communication between the project team and the public, contact information will be provided on Project Information Boards; these will be posted prominently around the project site on the fencing; refer to the appendix for a copy of the Project Information Board and the CMP Plan for the planned locations. Information on signage size and materials is outlined in the appendix.

#### **11.3: Preconstruction Meeting**

Prior to construction the developer, contractor and traffic control company will attend a pre-construction meeting with HRM staff to review the CMP document on site. HRM's engineering technician will confirm the date and time of this meeting; and may advise to waive the requirement.

#### **11.4: Construction Notification**

Approximately five (5) business days prior to the encroachment, an additional notification will be circulated to the neighbouring properties, notifying them that work is starting on site.

## Section 12: Summary

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This construction management plan was prepared with the goal to minimize negative impacts to the community, pedestrians, and traffic throughout the scope of this project. This plan will be used as a minimum standard and any further safety protection required or methods to provide a more positive environment will be used throughout construction work as necessary.

Should you have any questions or comments related to this document, please contact SDMM. For all construction-related inquiries, please contact the developer, contractor, or traffic control service provider.

Regards,

**Servant, Dunbrack, McKenzie & MacDonald Ltd.**

Geoff MacLean, P.Eng.

Project Engineer

Z:\SDMM\35000-35999\35550\35587\CMS\Mills Development - Excavation - CMP(IFR) - 35587.docx

# APPENDIX

## **Appendix A – Encroachment Plan**

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A1 - Phase 1 Encroachment Plan

A2 - Phase 1 Encroachment Plan with HRM's Streetscape Red Overlay

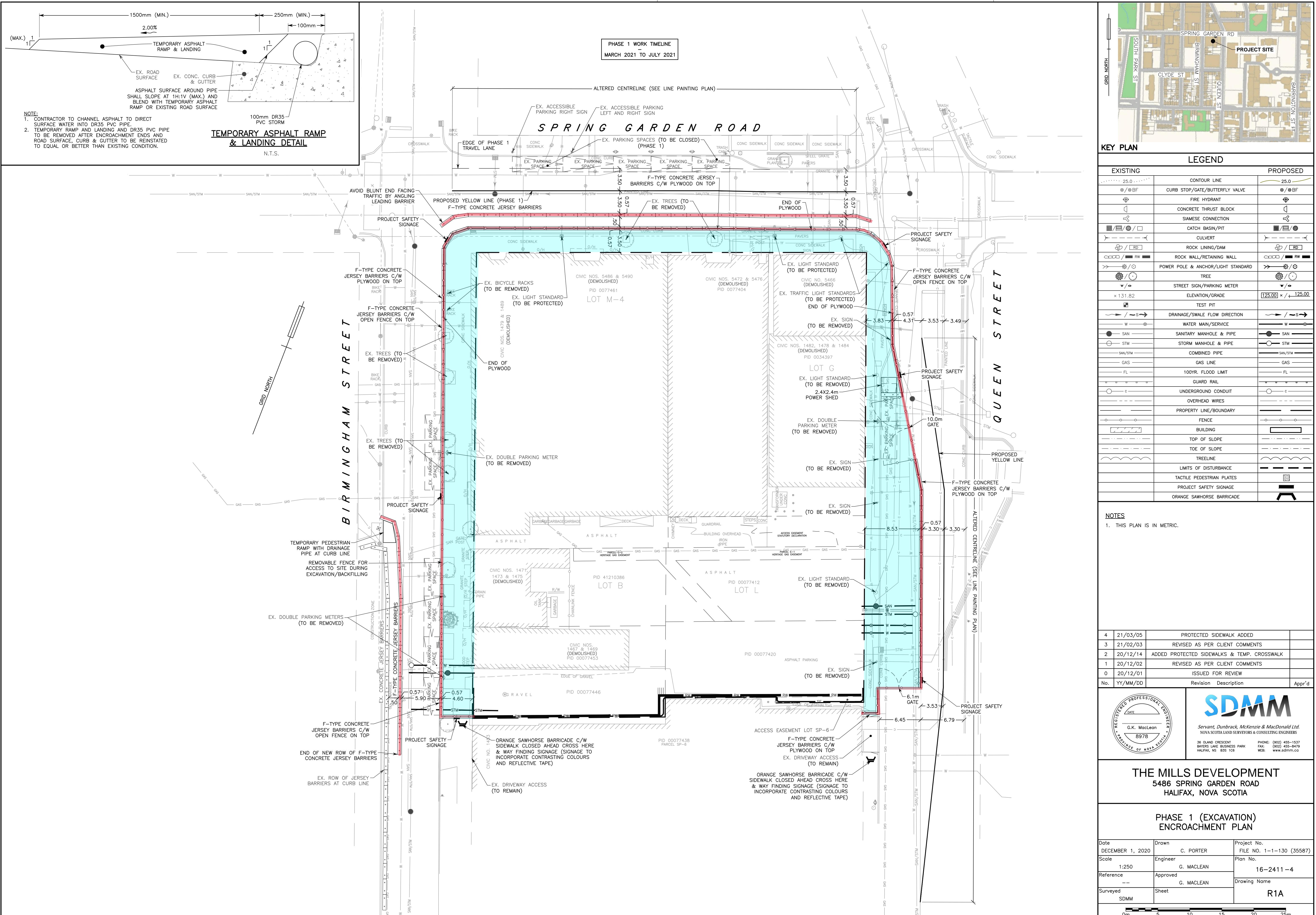
A3 - Phase 2 Encroachment Plan

A4 - Phase 2 Encroachment Plan with HRM's Streetscape Red Overlay

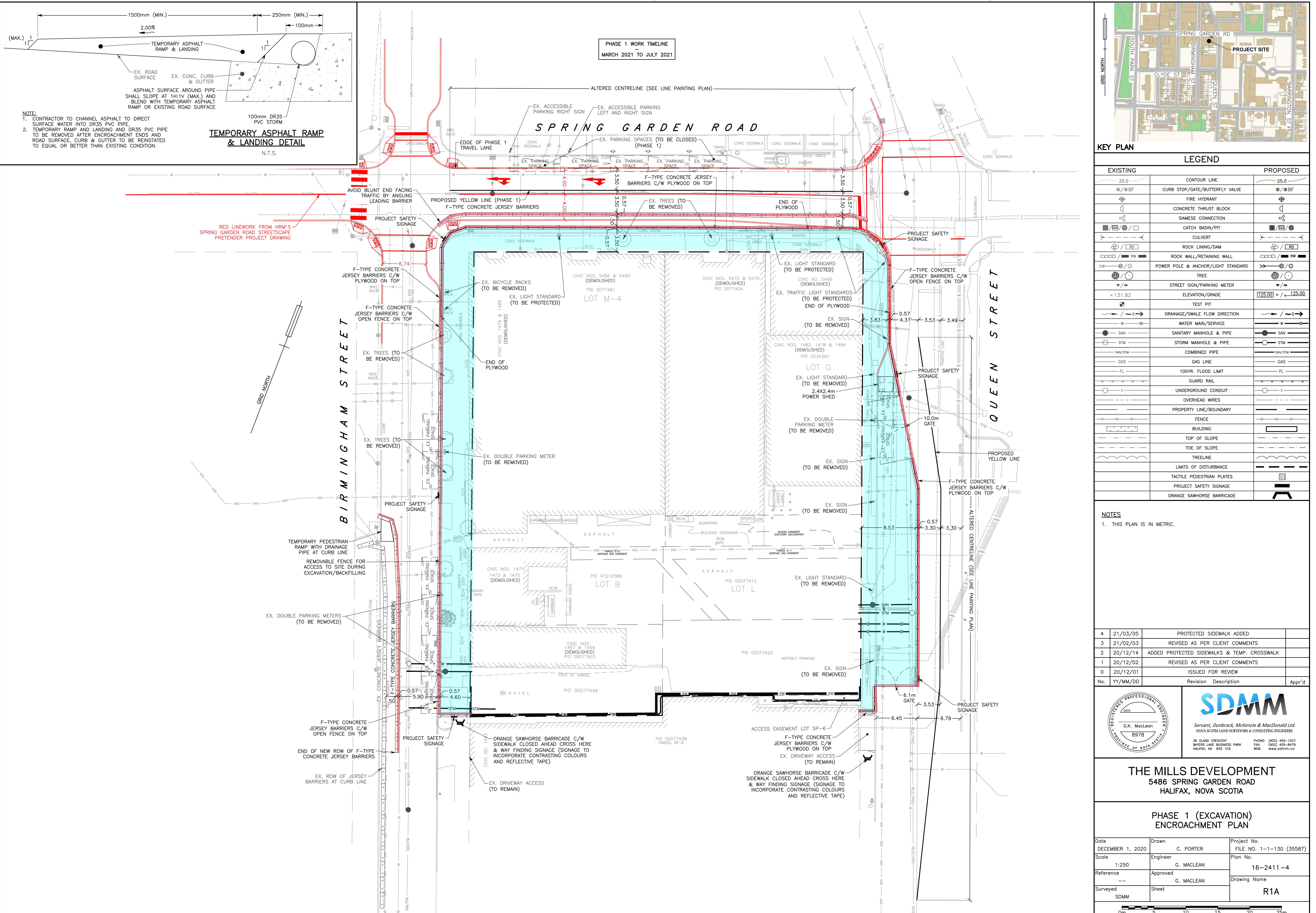
A5 - Phase 3 Encroachment Plan

A6 - Phase 3 Encroachment Plan with HRM's Streetscape Red Overlay

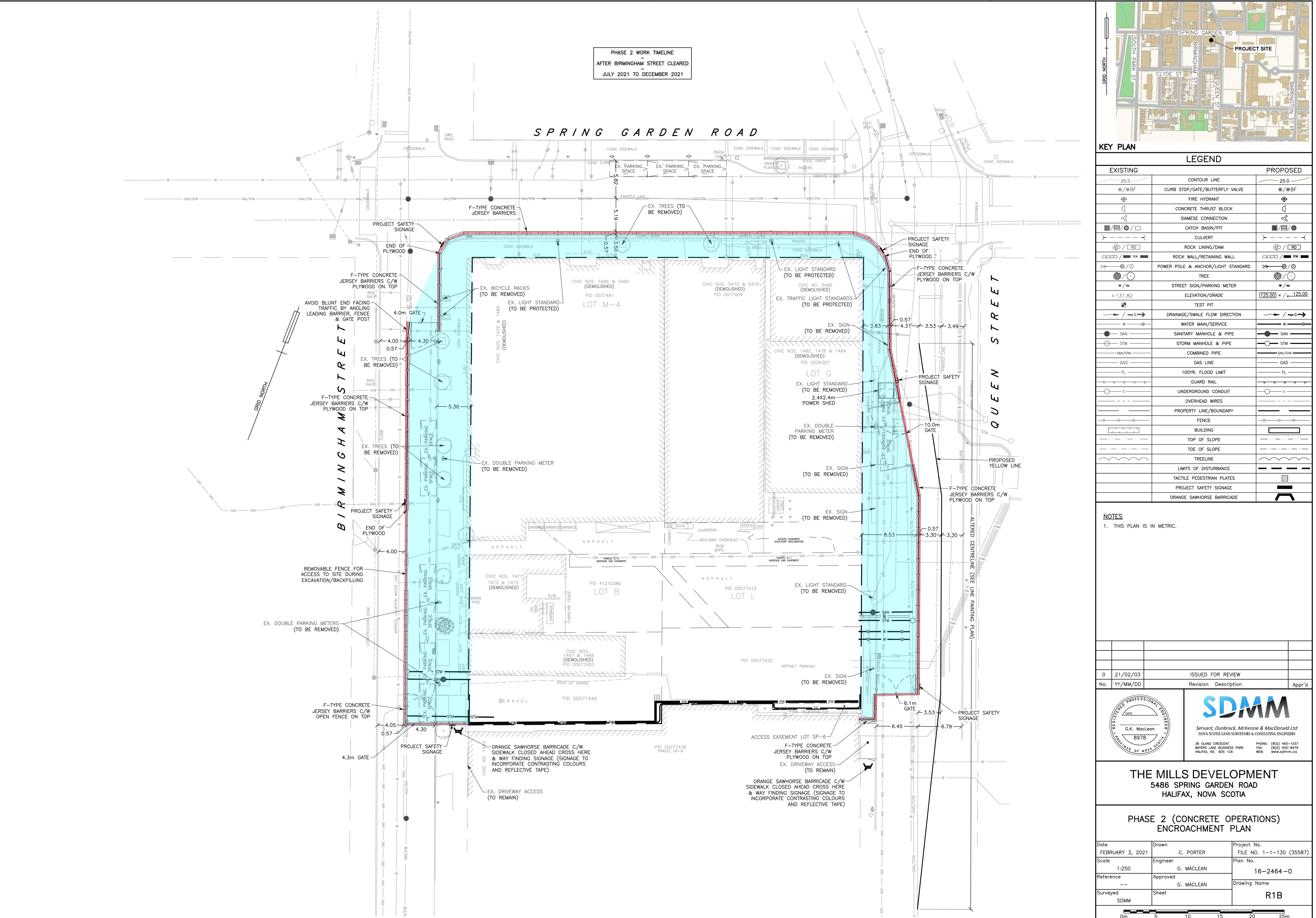
## Appendix A1



Appendix A2

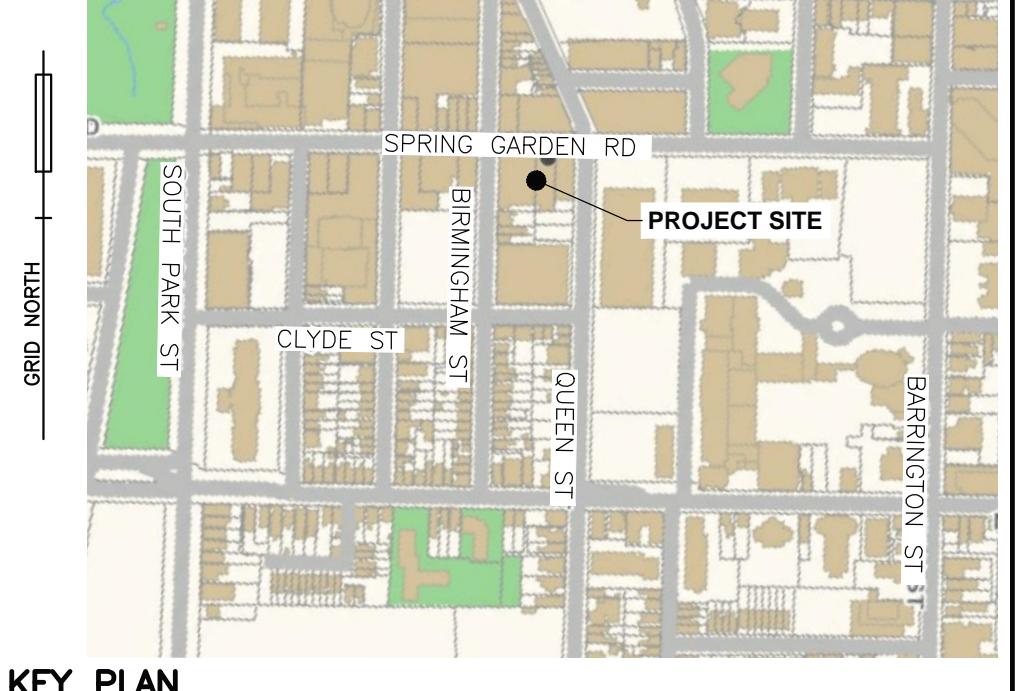
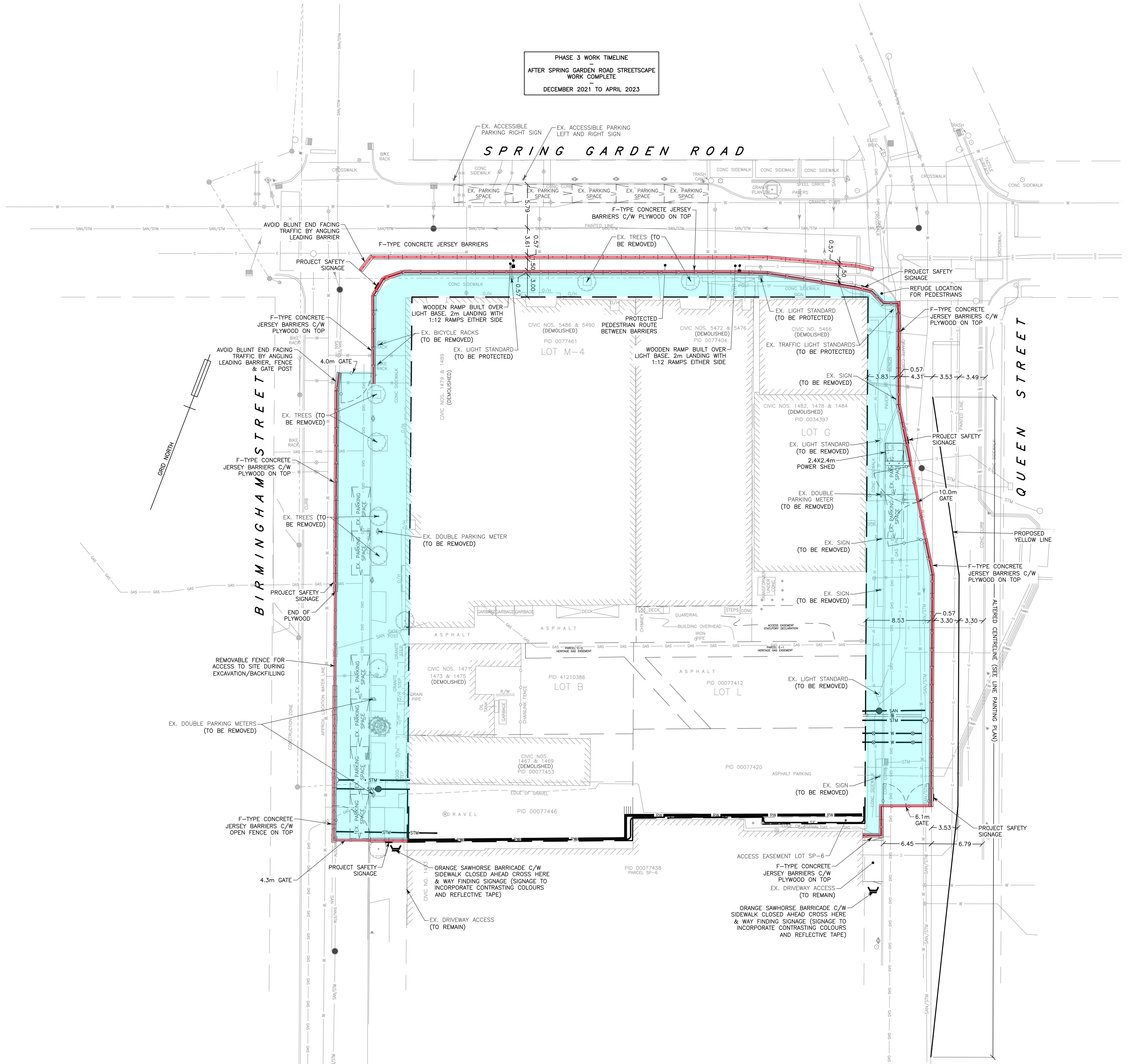


## Appendix A3



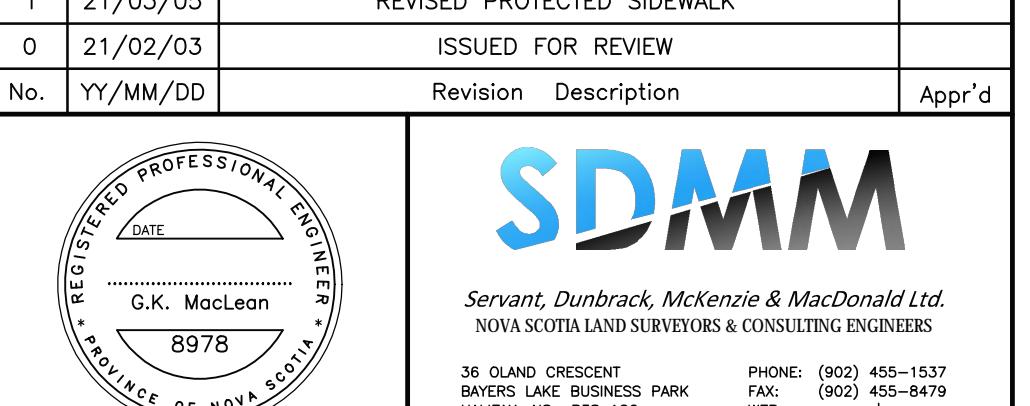


## Appendix A5



LEGEND	
EXISTING	PROPOSED
CONTOUR LINE	25.0
CURB STOP/GATE/BUTTERFLY VALVE	◎/◎BF
FIRE HYDRANT	◆
CONCRETE THRUST BLOCK	△
SIAMESE CONNECTION	□
CATCH BASIN/PIT	▲
CULVERT	—
ROCK LINING/DAM	○/○RD
ROCK WALL/RETAINING WALL	○/○RW
POWER POLE & ANCHOR/LIGHT STANDARD	→/○
TREE	○/○
STREET SIGN/PARKING METER	—/—
ELEVATION/GRADE	125.00 / + 125.00
TEST PIT	■
DRAINAGE/SWALE FLOW DIRECTION	→/—S→
WATER MAIN/SERVICE	—W—
SANITARY MANHOLE & PIPE	● SAN
STORM MANHOLE & PIPE	○ STM
COMBINED PIPE	— SAN/STM —
GAS LINE	— GAS —
FL 100YR. FLOOD LIMIT	— FL —
GUARD RAIL	— u u u —
UNDERGROUND CONDUIT	— C —
OVERHEAD WIRES	— — — — —
PROPERTY LINE/BOUNDARY	— — — — —
FENCE	— — — — —
BUILDING	— — — — —
TOP OF SLOPE	— — — — —
TOE OF SLOPE	— — — — —
TREELINE	— — — — —
LIMITS OF DISTURBANCE	— — — — —
TACTILE PEDESTRIAN PLATES	— — — — —
PROJECT SAFETY SIGNAGE	— — — — —
ORANGE SAWHORSE BARRICADE	— — — — —

No.	YY/MM/DD	Revision Description	App'd
1	21/03/05	REVISED PROTECTED SIDEWALK	
0	21/02/03	ISSUED FOR REVIEW	



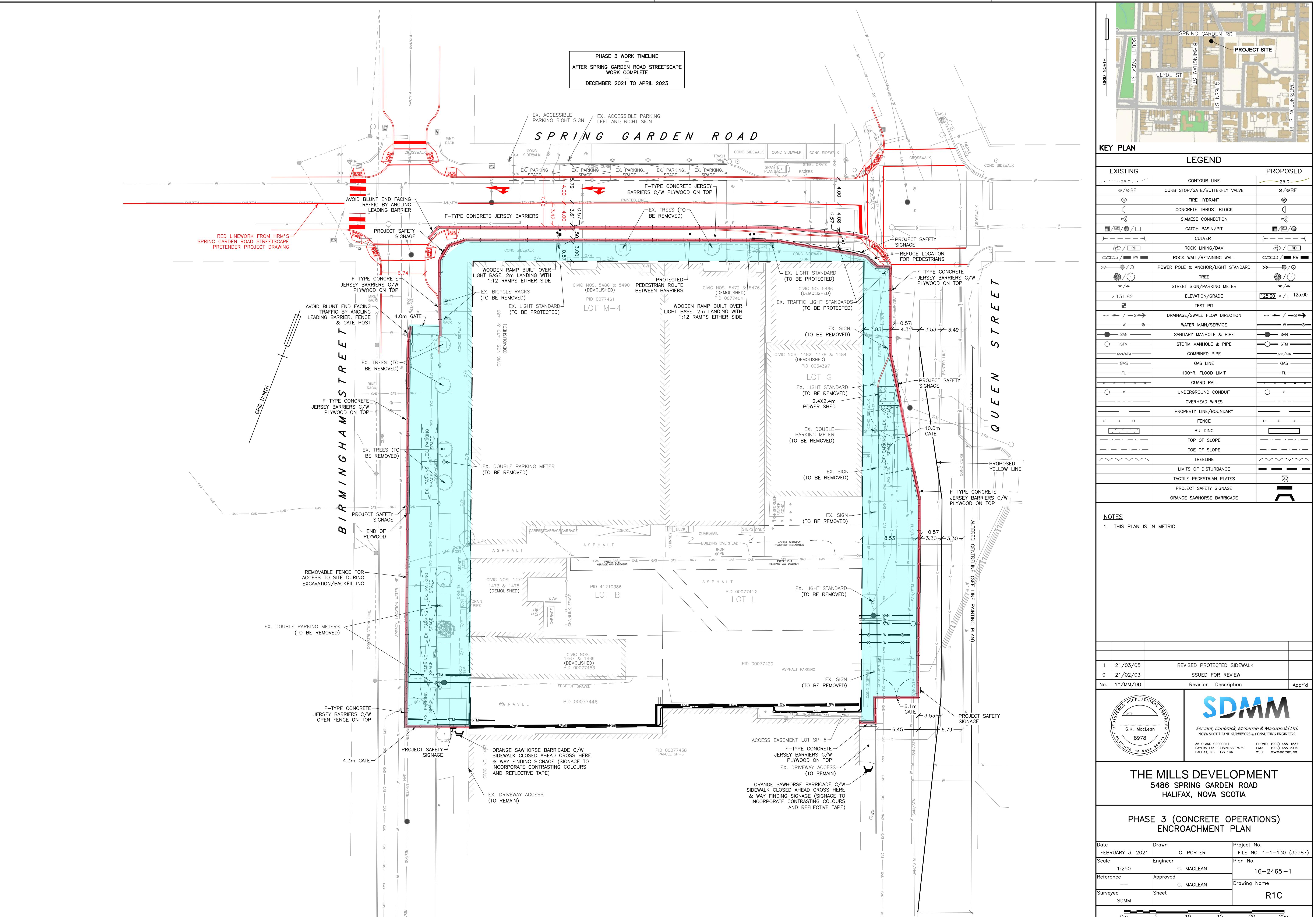
**THE MILLS DEVELOPMENT**  
5486 SPRING GARDEN ROAD  
HALIFAX, NOVA SCOTIA

**PHASE 3 (CONCRETE OPERATIONS)  
ENCROACHMENT PLAN**

Date	Drawn	Project No.
FEBRUARY 3, 2021	C. PORTER	FILE NO. 1-1-130 (35567)
Scale	Engineer	Plan No.
1:250	G. MACLEAN	16-2465-1
Reference	Approved	Drawing Name
Surveyed	G. MACLEAN	R1C
SDMM	Sheet	

0m 5 10 15 20 25m

Appendix A6



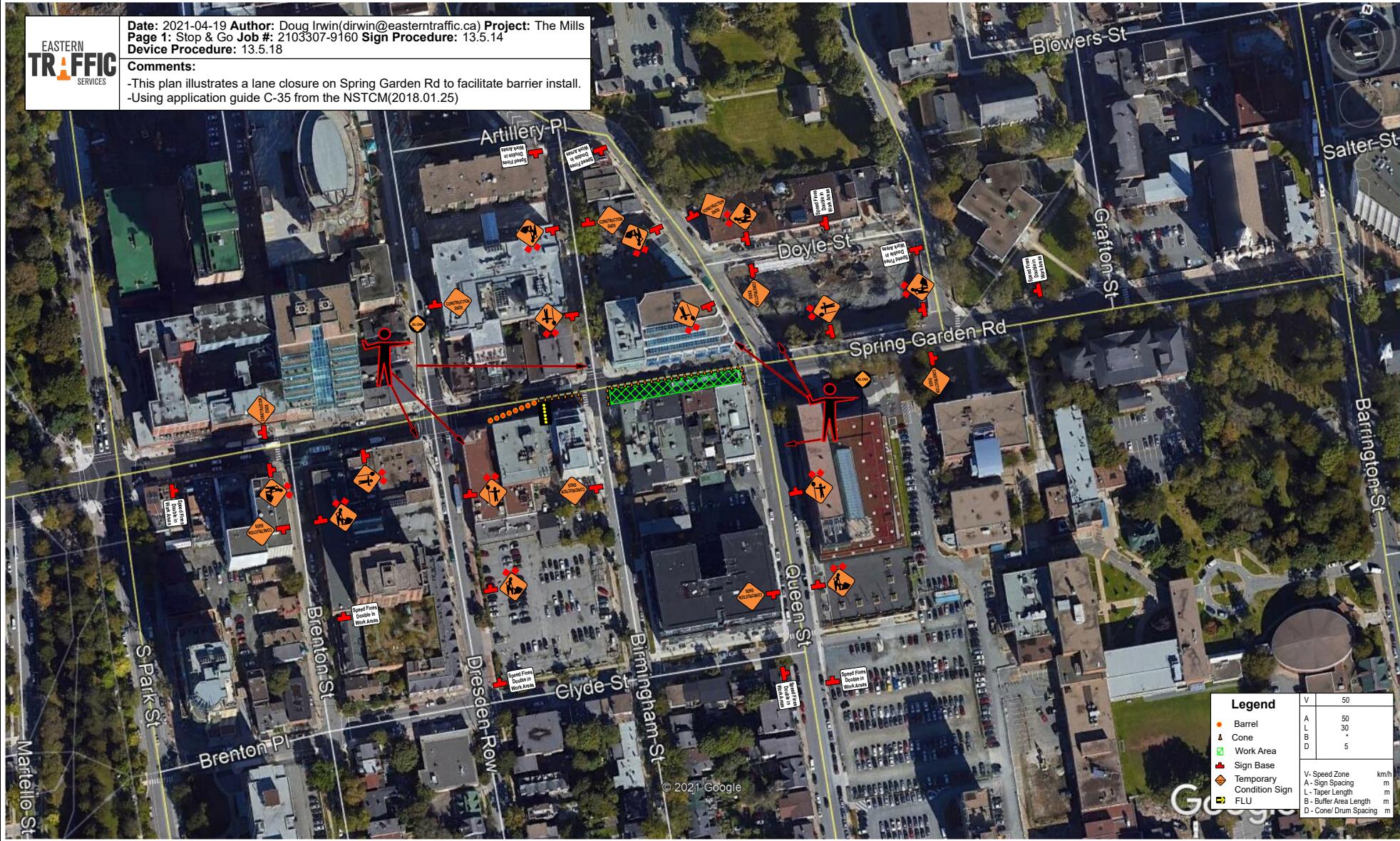
## Appendix B – Traffic Control Plans (TCP)

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- B1 - Barrier Installation TCP - Spring Garden Road
- B2 - Barrier Installation TCP - Birmingham Street
- B3 - Barrier Installation TCP - Queen Street
- B4 - Crane Installation TCP
- B5 - Service Lateral Install TCP 1
- B6 - Service Lateral Install TCP2

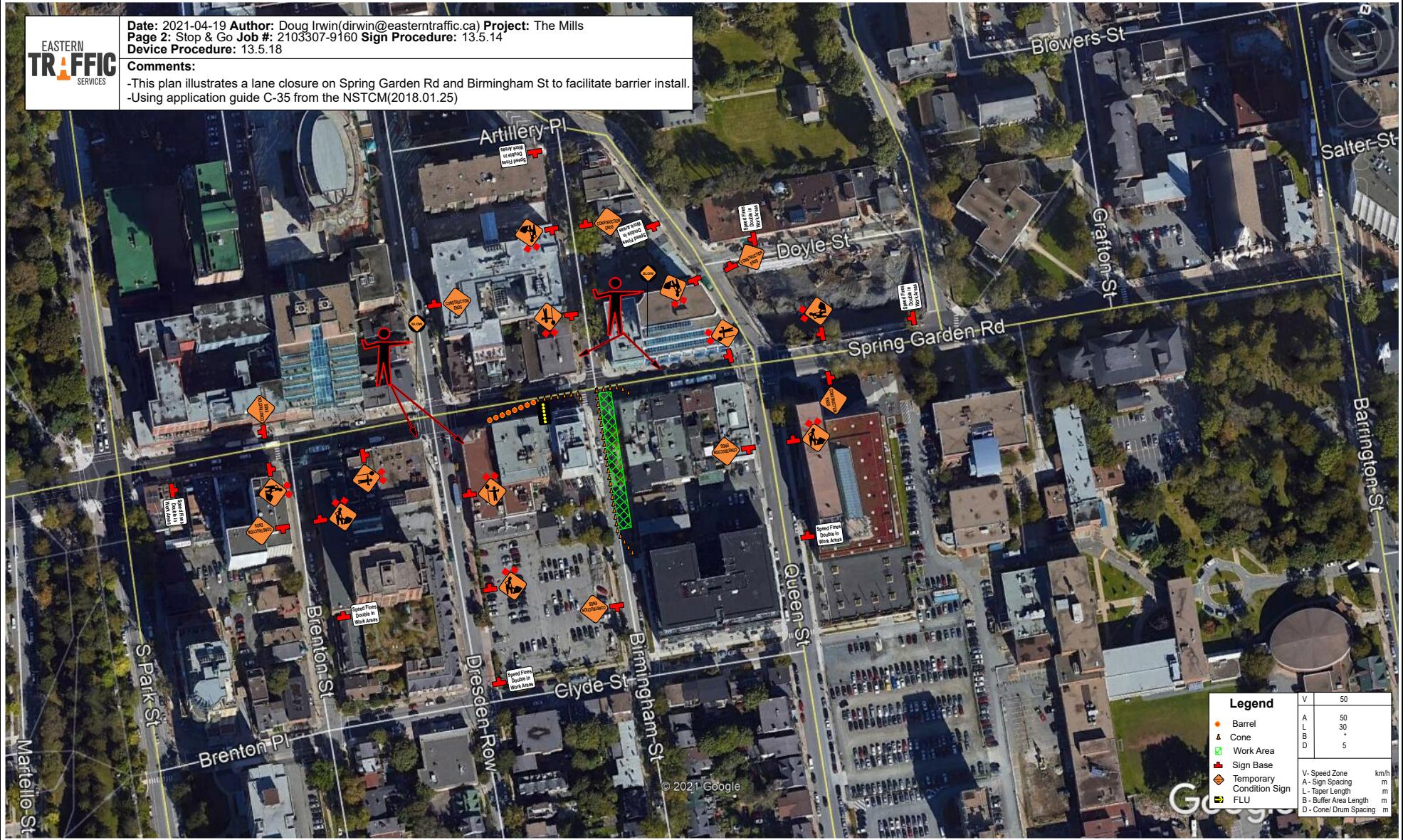
## Appendix B1

[www.invarion.com](http://www.invarion.com)



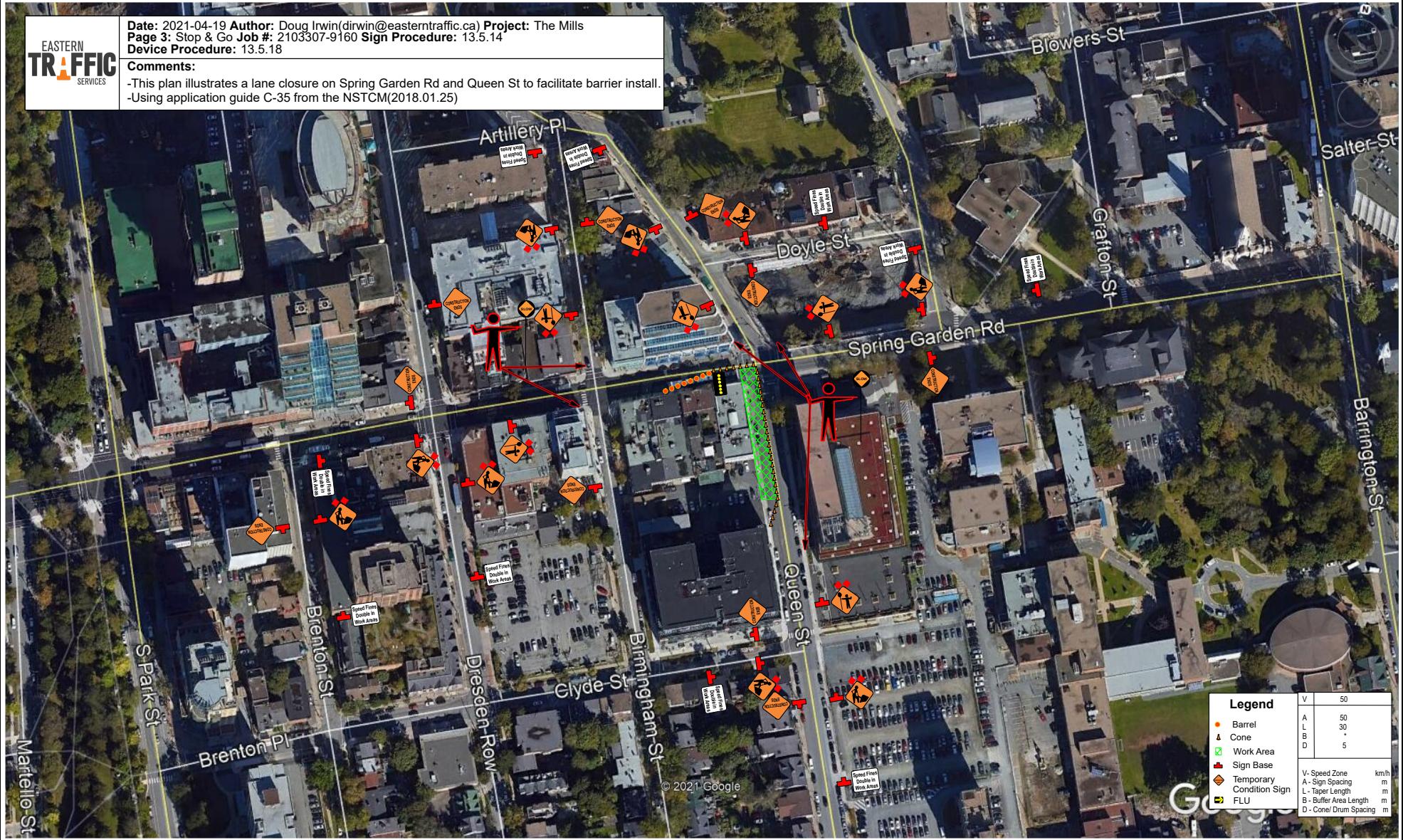
## Appendix B2

[www.invarion.com](http://www.invarion.com)

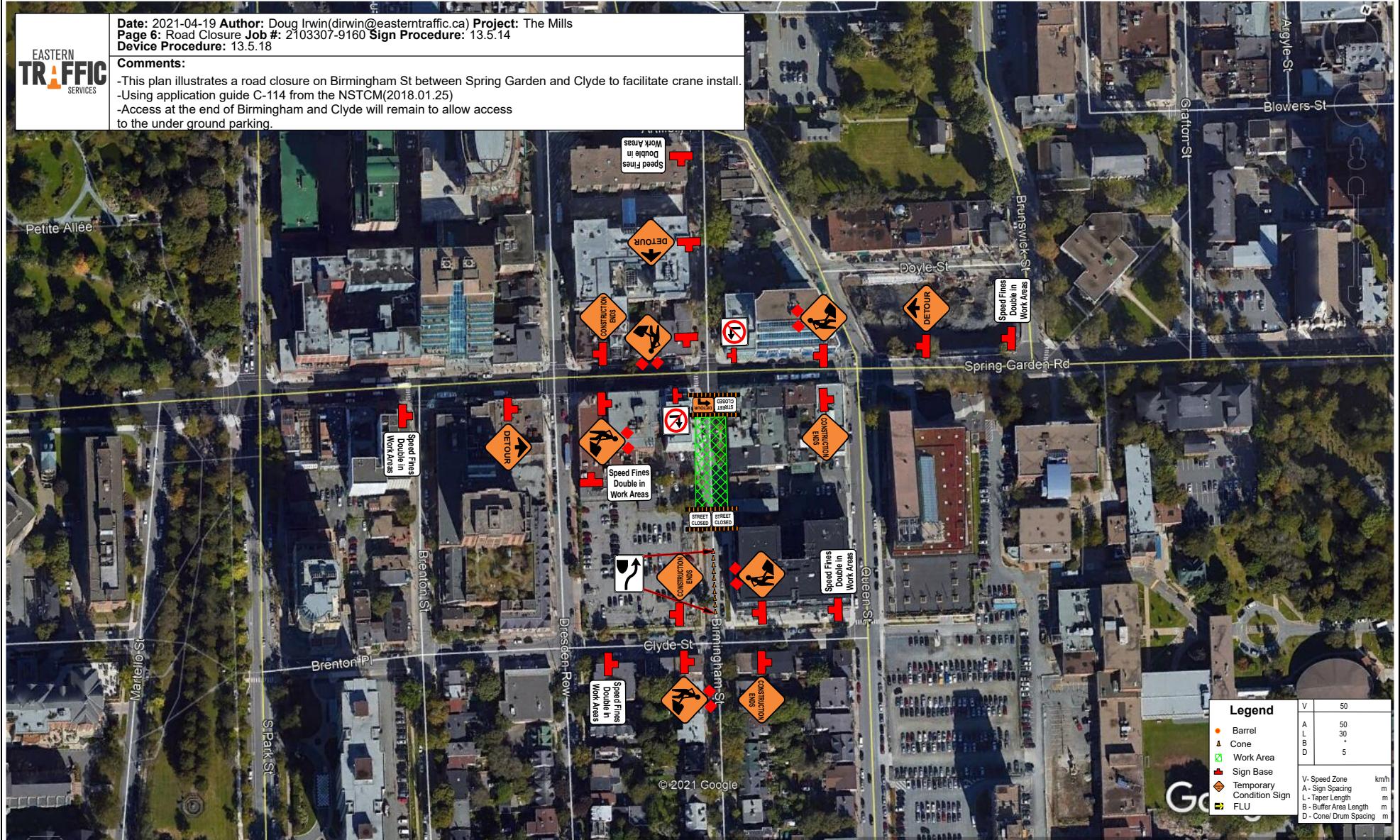


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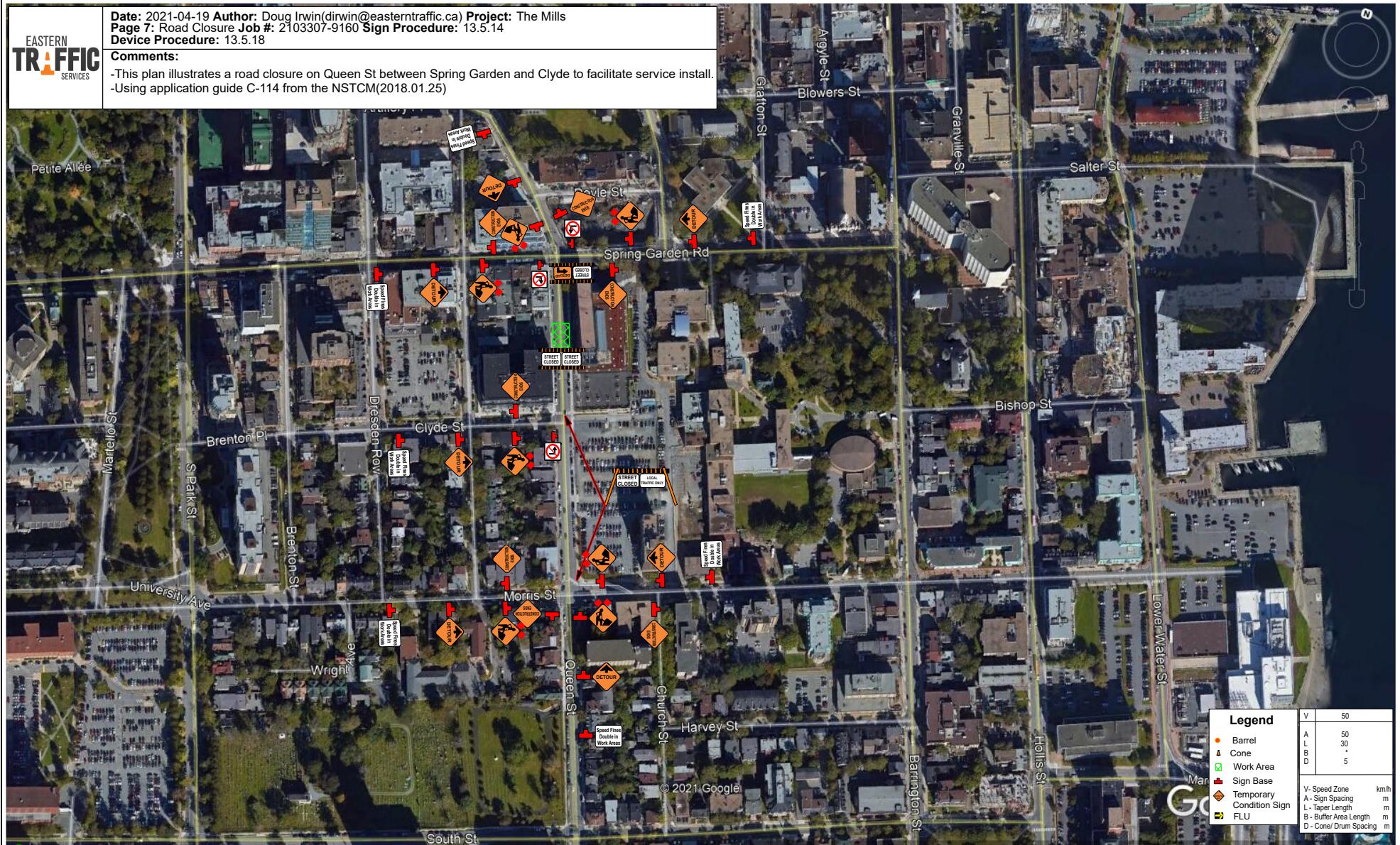
[www.invarion.com](http://www.invarion.com)



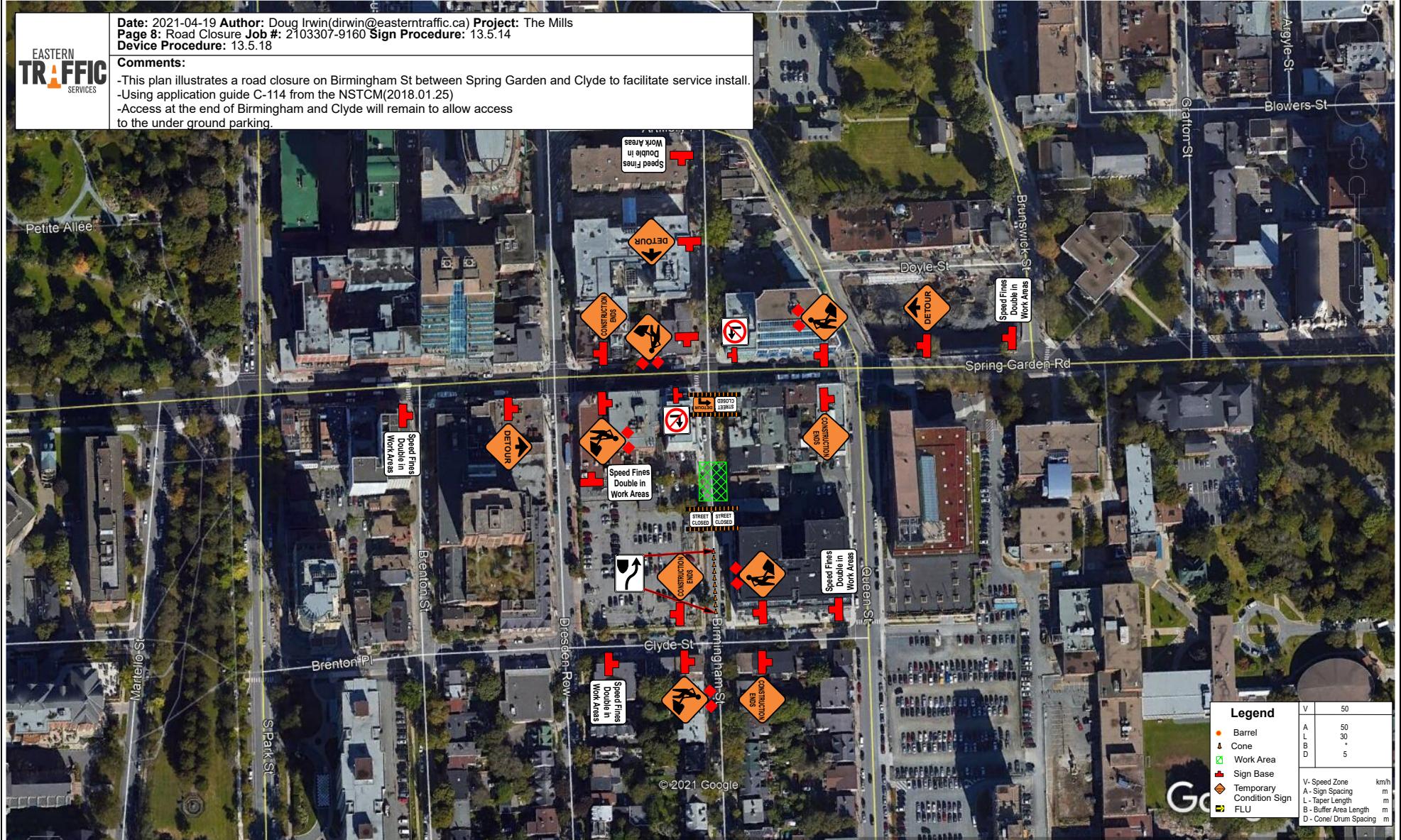
## Appendix B4



## Appendix B5



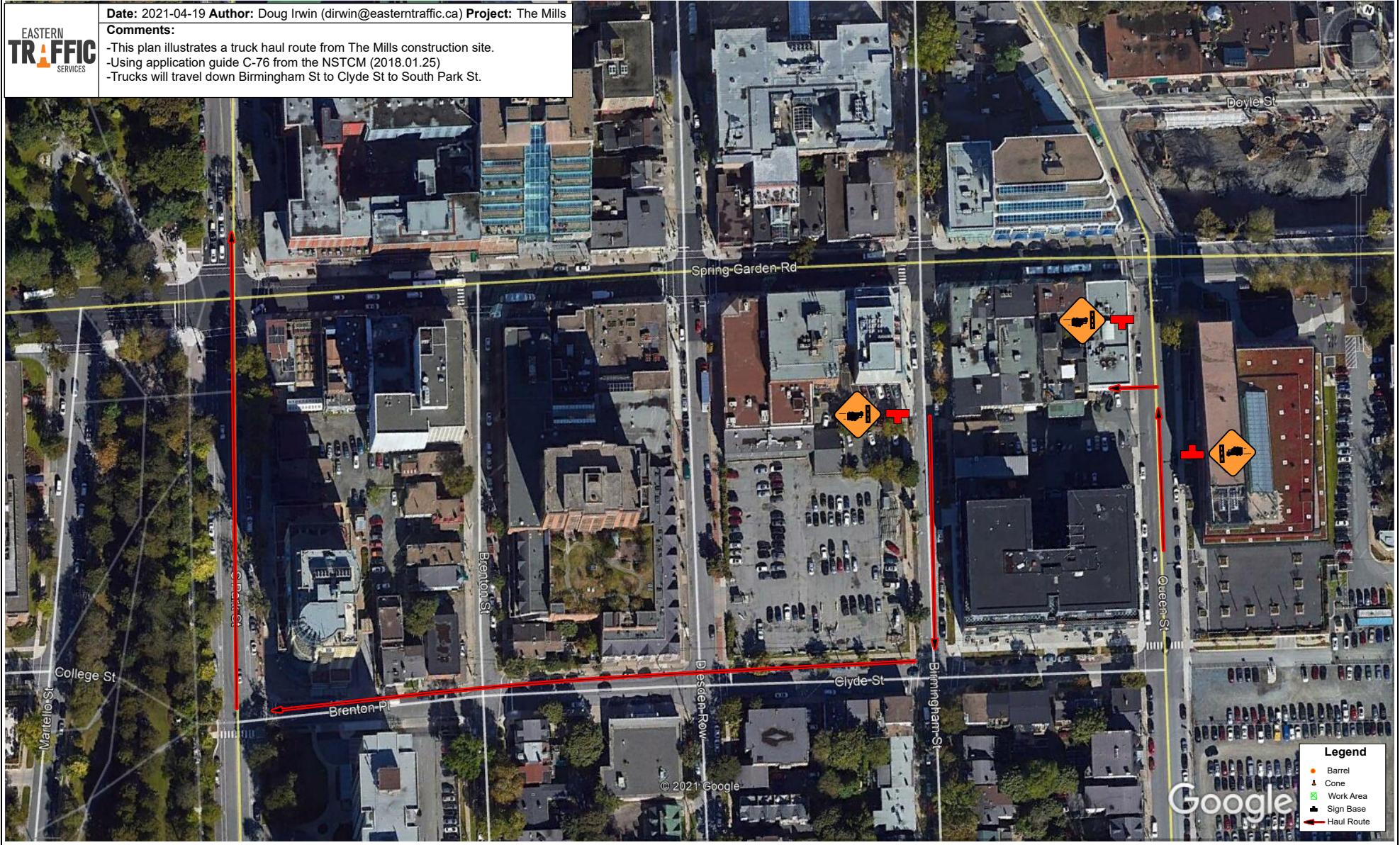
## Appendix B6



## **Appendix C – Haul Route Plan**

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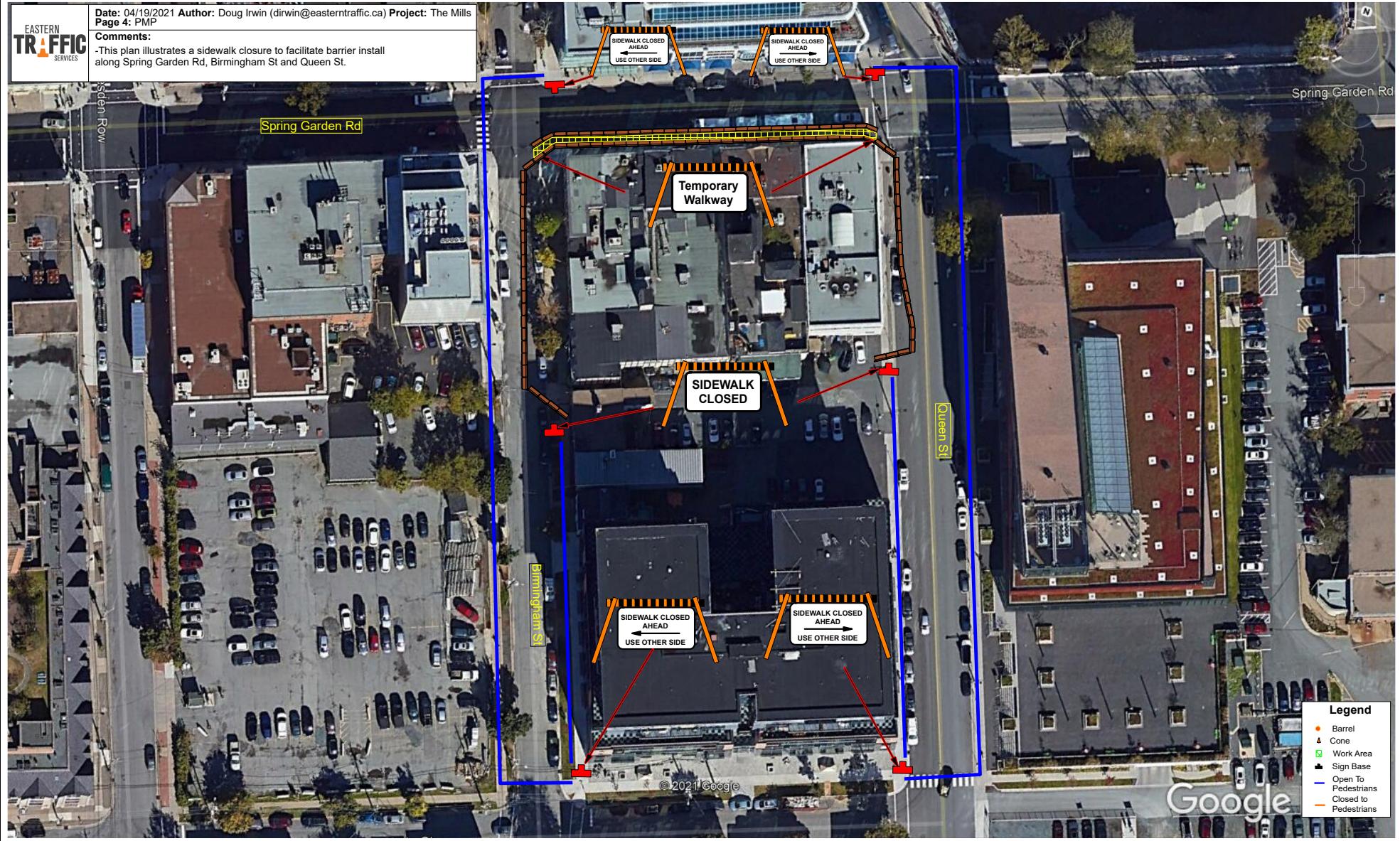
## Appendix C - Haul Route Plan



## Appendix D – Pedestrian Management Plan (PMP)

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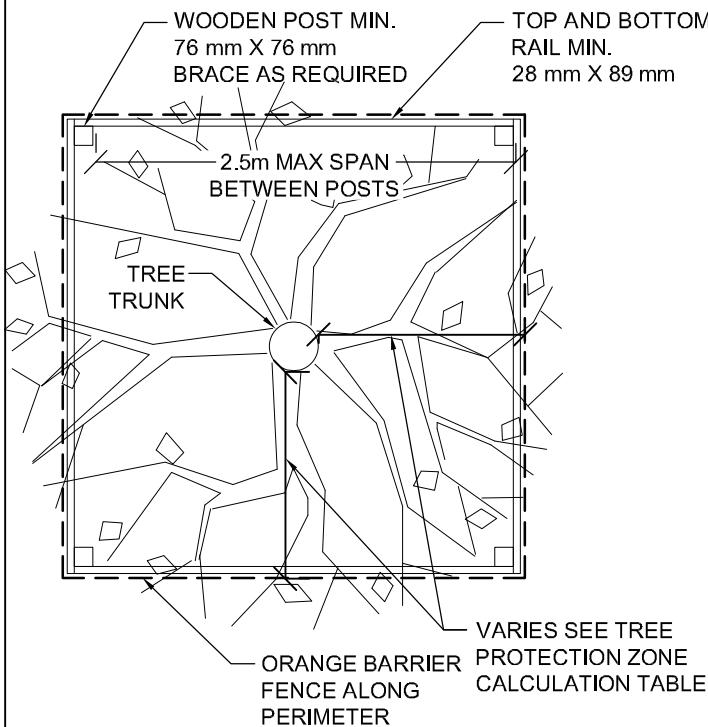
## Appendix D - Pedestrian Management Plan (PMP)



## **Appendix E – HRM Tree Detail**

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## PLAN VIEW

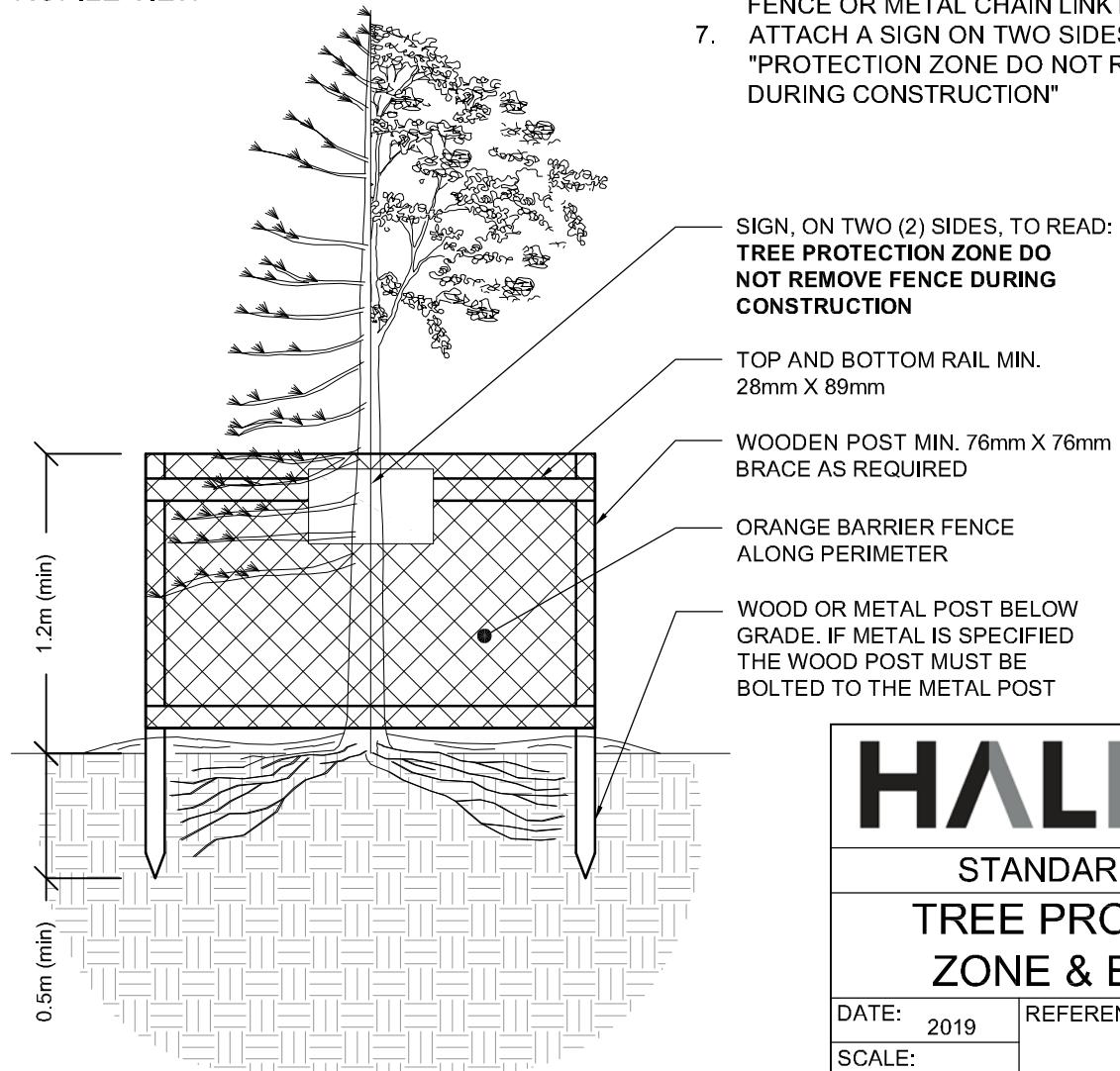


TREE PROTECTION ZONE CALCULATION TABLE	
TRUNK DIAMETER (DBH)	MINIMUM PROTECTION DISTANCE REQUIRED (MEASURE FROM THE OUTSIDE EDGE OF TREE TRUNK)
10 CM & UNDER	1.2 METERS
11 - 30 CM	2.0 METERS
31 - 40 CM	3.4 METERS
41 - 50 CM	4.6 METERS
51 - 60 CM	6.0 METERS
61 - 70 CM	7.0 METERS
71 - 80 CM	8.0 METERS
>80 CM	9.0 METERS

## NOTES:

1. WOOD POST: (MIN. 76mm WIDTH) INSTALLED TO A DEPTH OF 500mm (UNDERGROUND LOCATES REQUIRED)
2. TOP AND BOTTOM RAIL: (MIN. 38 X 89mm CONSTRUCTION, MAX. SPAN 2.5m), CROSS BRACING AS REQUIRED.
3. HEIGHT OF THE FENCE: MIN.1.2 METERS
4. NO GROUND DISTURBANCE WITHIN 1.2 METER OF THE TREE TRUNK (I.E. POST INSTALLATION)
5. POSTS SET BACK FROM SIDEWALK AND CURB: MIN 300mm
6. FENCE MATERIAL: MINIMUM ORANGE BARRIER FENCE OR METAL CHAIN LINK FENCE
7. ATTACH A SIGN ON TWO SIDES OF THE TREE "PROTECTION ZONE DO NOT REMOVE FENCE DURING CONSTRUCTION"

## PROFILE VIEW



**HALIFAX**

**STANDARD DETAIL  
TREE PROTECTION  
ZONE & BARRIER**

DATE: 2019	REFERENCE:	APPROVED
SCALE: NTS		FIG NO:

## Appendix F – Barrier, Fence & Gates Information

---

## Sample Barrier & Fence Details

### F-shape Barrier

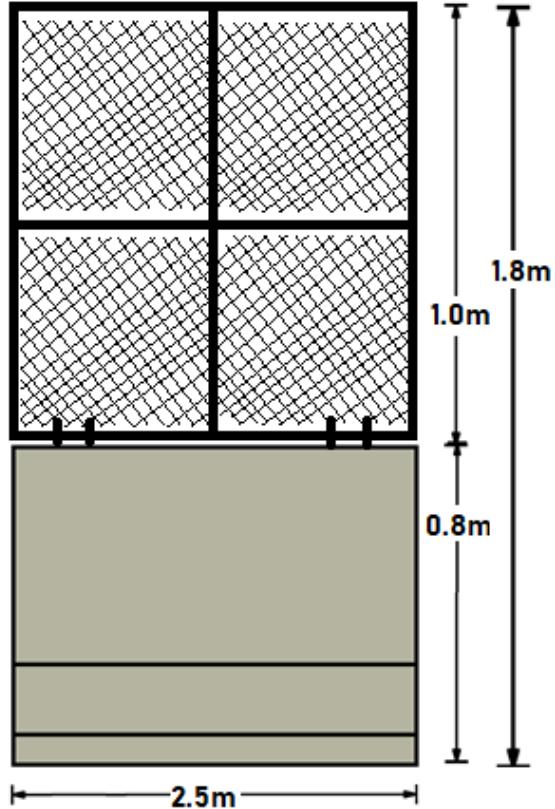
#### Approved Barrier Designs

The only pre-approved portable anti-intrusion barrier in Nova Scotia is the Portland Cement Concrete F-shape Barrier. F-shape Barriers with designs approved before 2011.01.01 must be constructed and installed copying a design certified as meeting Test Level 3 of the NCHRP Report 350 (NCHRP 350), or if the design was approved after 2011.01.01, Test Level 3 standards of the American Association of State Highway and Transportation Officials (AASHTO) Manual for Assessing Safety Hardware (MASH).

Dimensions are in mm

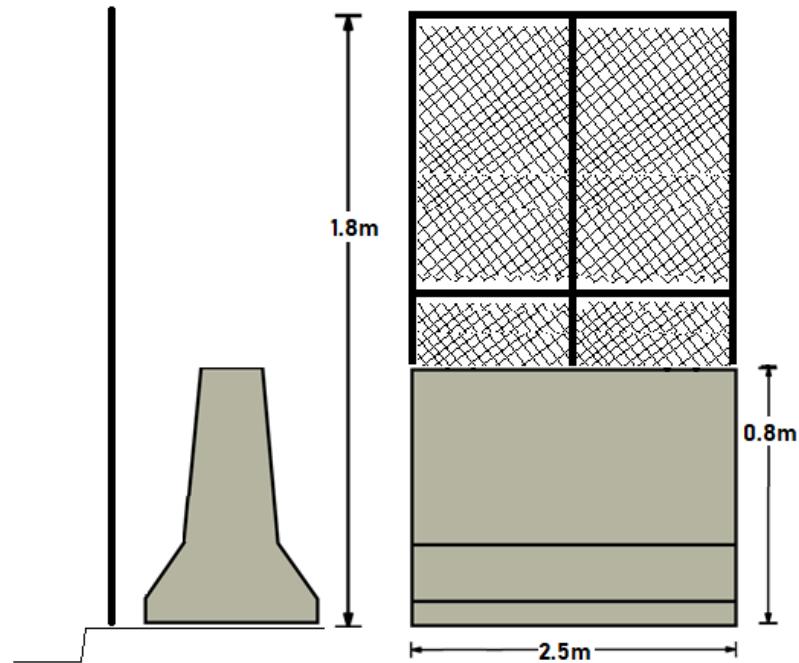


**Chain link fence mounted  
on top of F-type  
interlocking concrete  
jersey barrier**

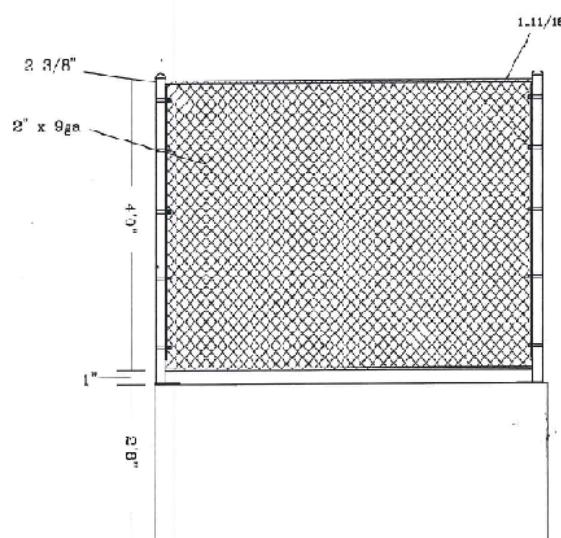


**Note: All F-type concrete barriers within the street shall have  
reflective tape on them.**

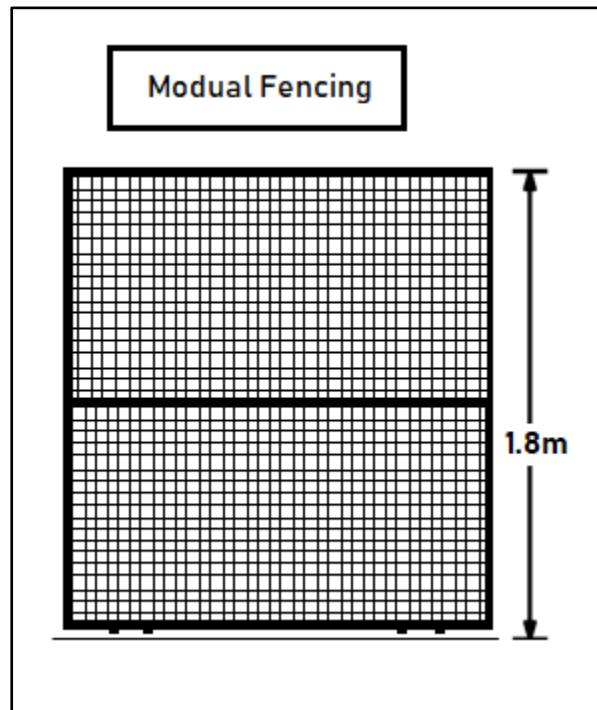
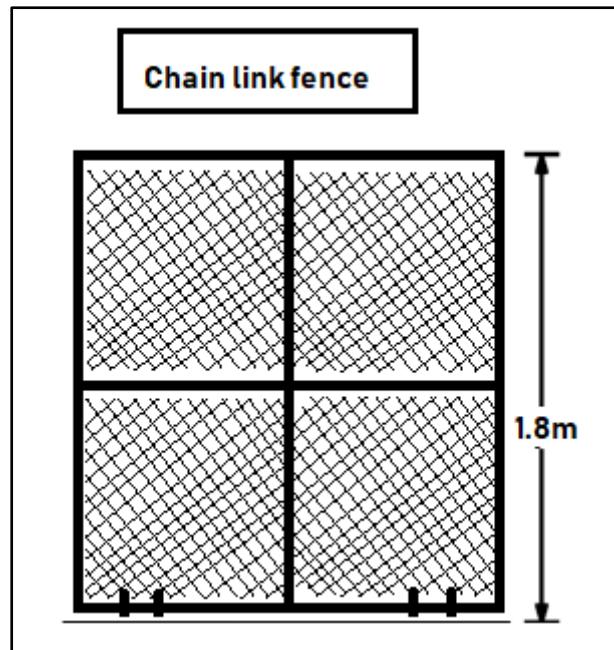
Fence mounted to curb with interlocking F-type concrete jersey barriers set beside

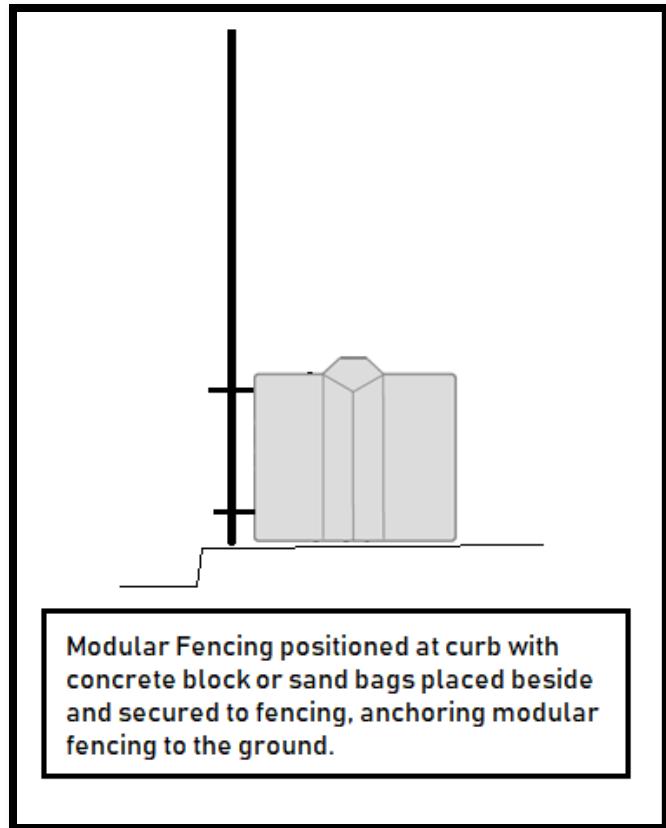


Note: All F-type concrete barriers within the street shall have reflective tape on them.



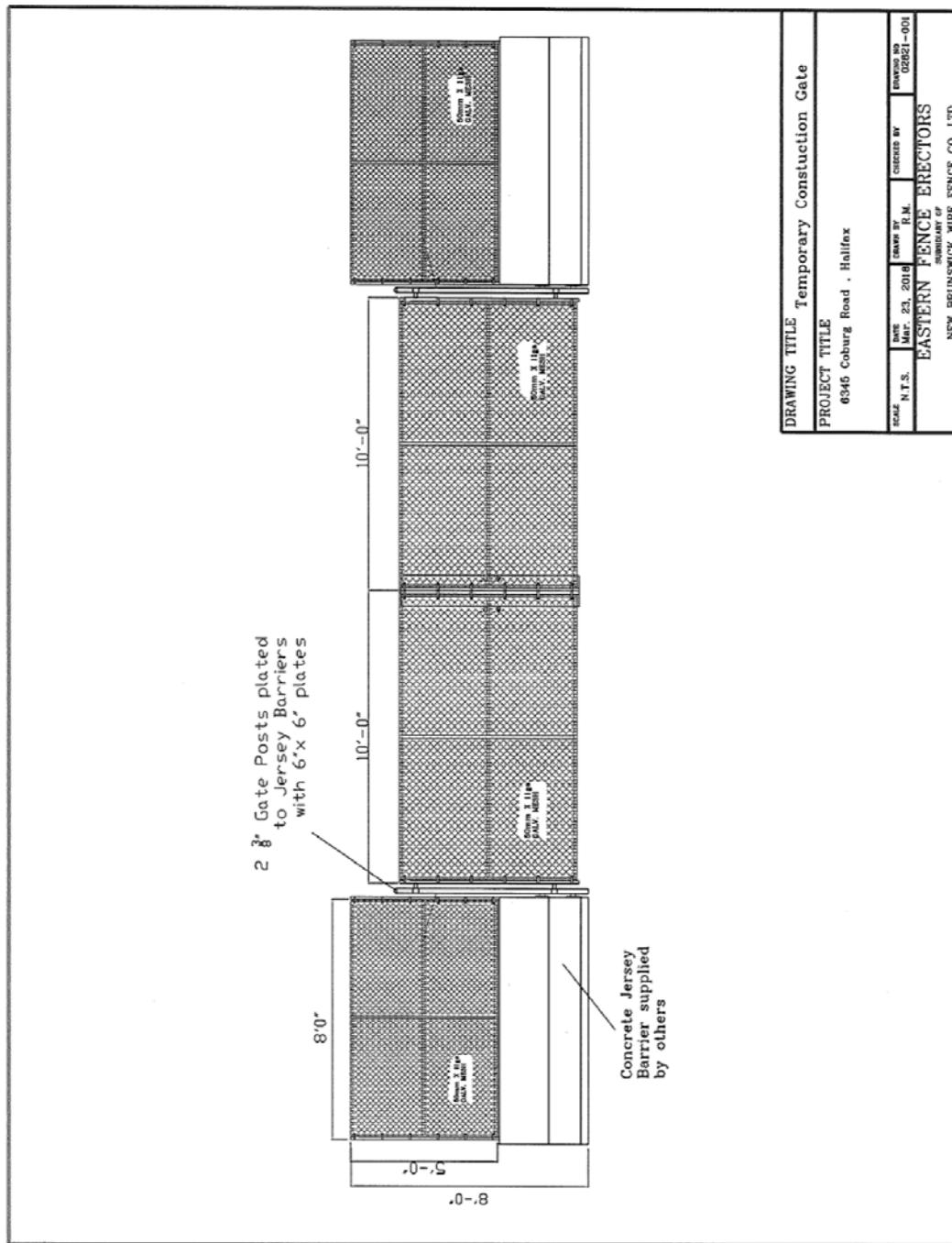
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DRAWING TITLE					
PROJECT TITLE					
WALL TYPE	LINE TYPE DRAW	SHADE METHOD	FINISH METHOD	NOTES IN	
EASTERN FENCE					
SUBSIDIARY OF NEW BRUNSWICK WIRE FENCE CO. LTD					





**Modular Fencing positioned at curb with concrete block or sand bags placed beside and secured to fencing, anchoring modular fencing to the ground.**

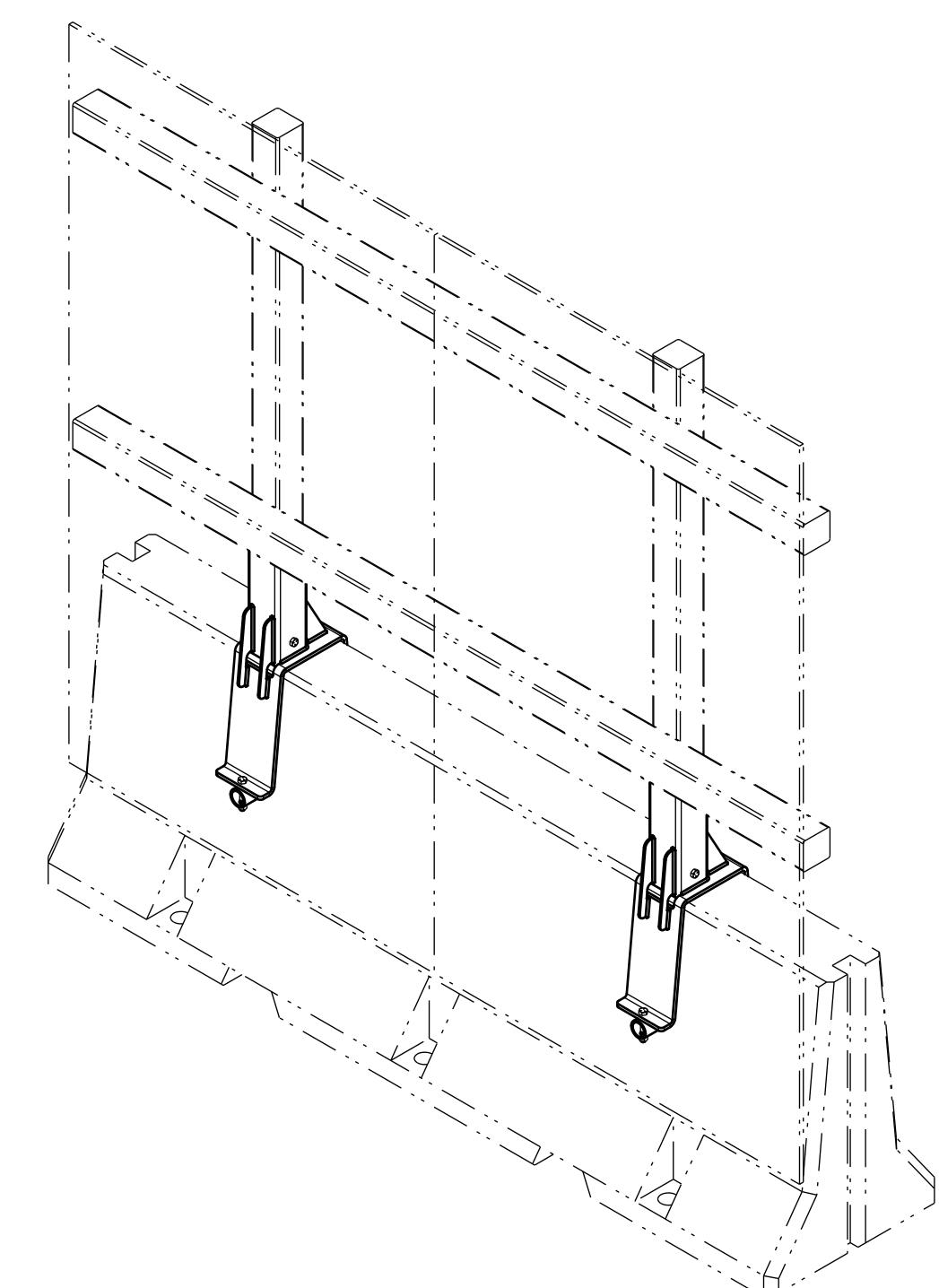
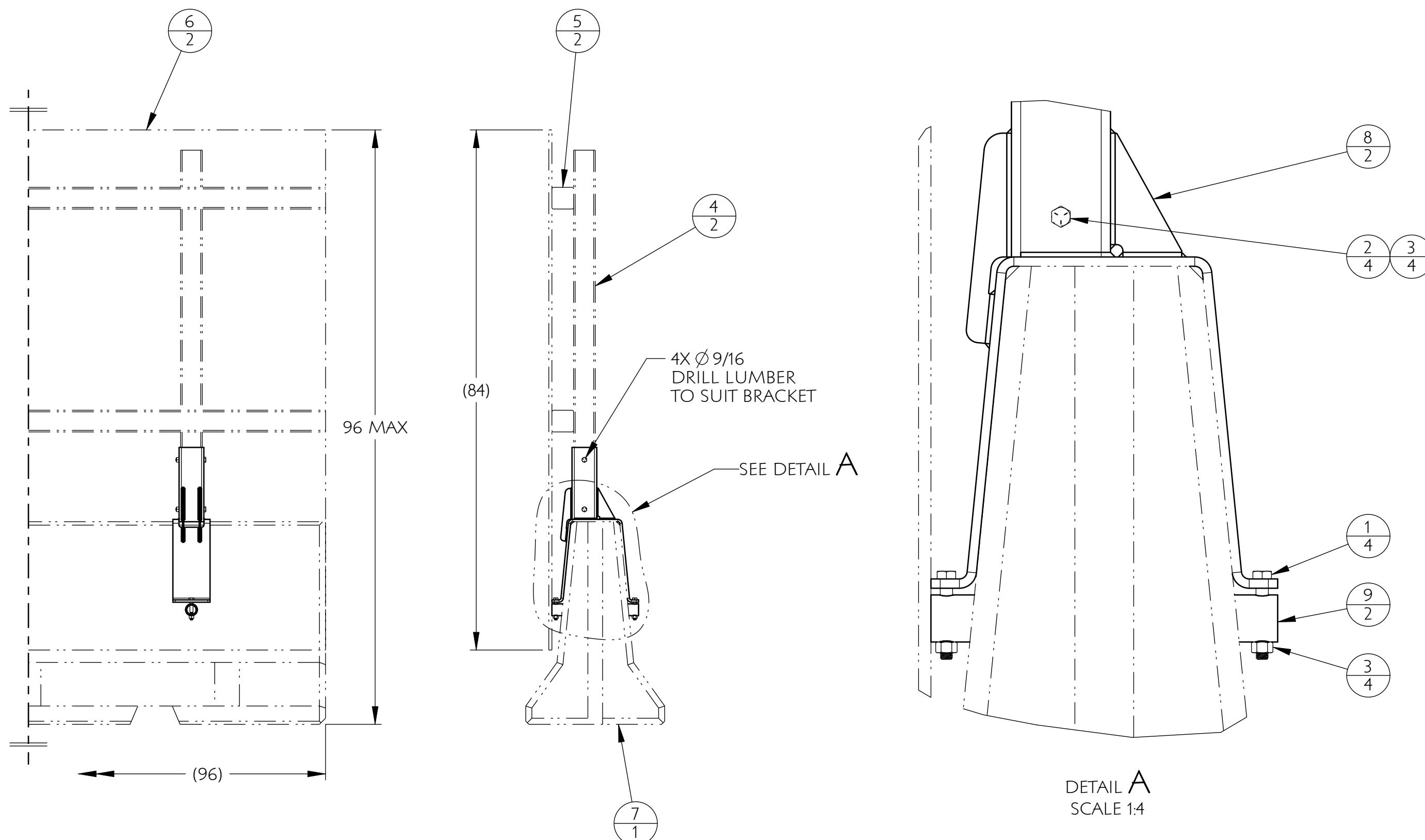
Sample Gate Detail







REV	ZONE	DESCRIPTION	DATE
A	-	FIRST ISSUE	-



ITEM N°	QTY	PART NUMBER	PART NAME	SUPPLY
1	4	-	1/2-13 UNC-2A X 3-1/4 LONG HEX HEAD SCREW, GRADE 5 MINIMUM	BY OTHERS
2	4	-	1/2-13 UNC-2A X 4-1/2 LONG HEX HEAD SCREW, GRADE 5 MINIMUM	BY OTHERS
3	8	-	1/2-13 UNC-2B NUT, GRADE 5 MINIMUM	BY OTHERS
4	2	-	4X4 LUMBER, 8 ft LONG	BY OTHERS
5	2	-	4X4 LUMBER, ~5 ft LONG	BY OTHERS
6	2	-	PLYWOOD SHEET	BY OTHERS
7	1	-	SHAW PRECAST SOLUTIONS STANDARD JJ BARRIER, F-TYPE	BY OTHERS
8	2	PO25-0002-00	BARRIER BRACKET	VELOCITY MACHINING & WELDING INC.
9	2	PO25-0003-00	FASTENING PIPE	VELOCITY MACHINING & WELDING INC.

## NOTES:

- FOR USE IN 100 km/hr WINDS MAXIMUM.  
WIND SPEEDS GREATER THAN 100 km/hr MAY CAUSE  
BARRIER TO TIP OVER.

2019-10-29  
Original Signed

THIS DRAWING BELONGS TO WELL ENGINEERED. CONTACT US  
IF YOU WISH TO REPRODUCE IT OR COMMUNICATE ANY OF ITS  
CONTENTS. PERMISSION WILL LIKELY BE GRANTED AND GIVEN  
IN WRITING.

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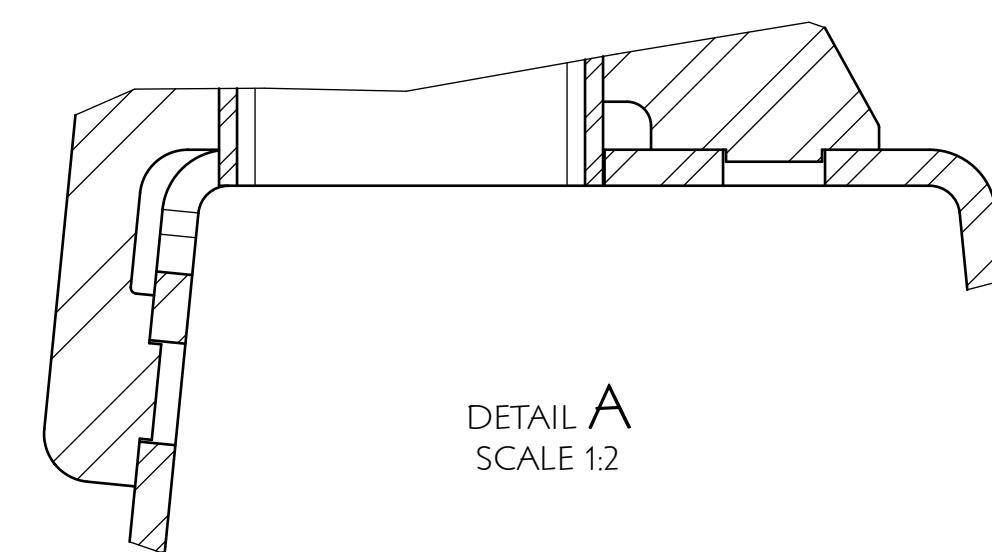
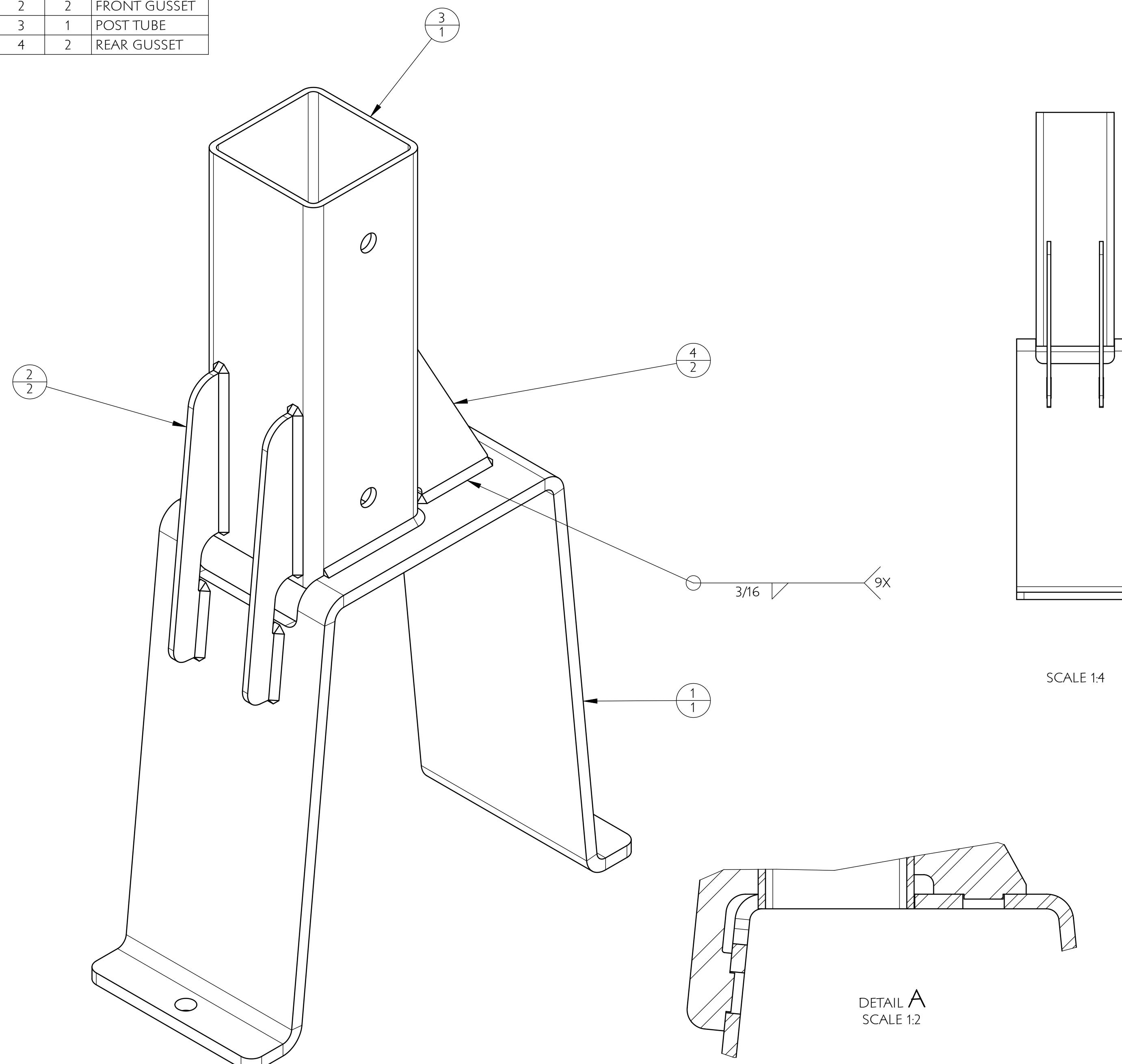
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APPROVED [REDACTED]	SIZE C THIRD ANGLE PROJECTION
DATE 2019-10-28	DRAWING N° PO25-0001-00 REV A
SCALE 1:16	SHEET 1 OF 1

ITEM N°	QTY	PART NAME
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2	2	FRONT GUSSET
3	1	POST TUBE
4	2	REAR GUSSET



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2019-10-29  
Original Signed

MASS 32.535 lbm

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CHECKED [REDACTED]

APPROVED [REDACTED]

DATE 2019-10-28

**WellENGINEERED**  
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NOVA SCOTIA, CANADA, B3B 1S4  
<http://wellengineered.ca/>

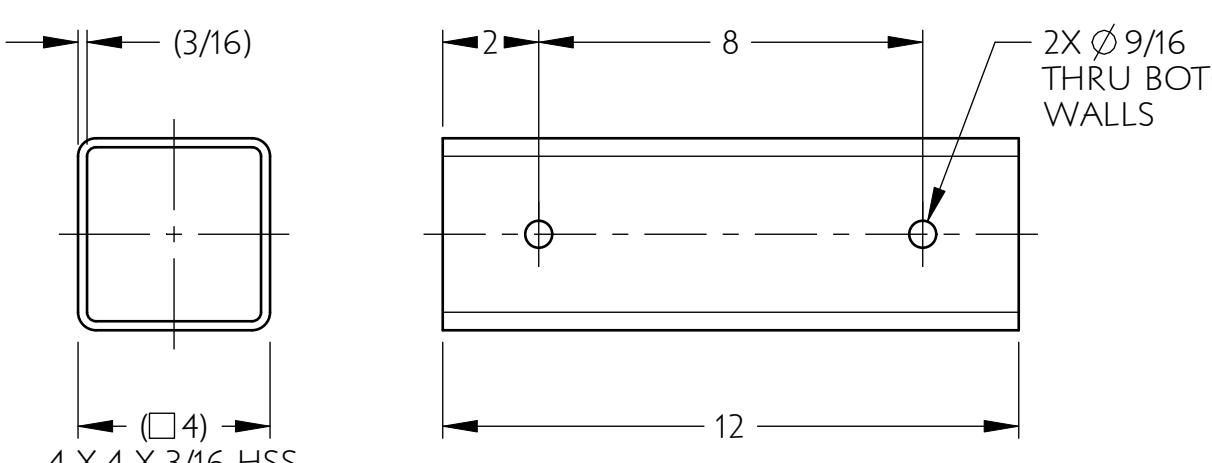
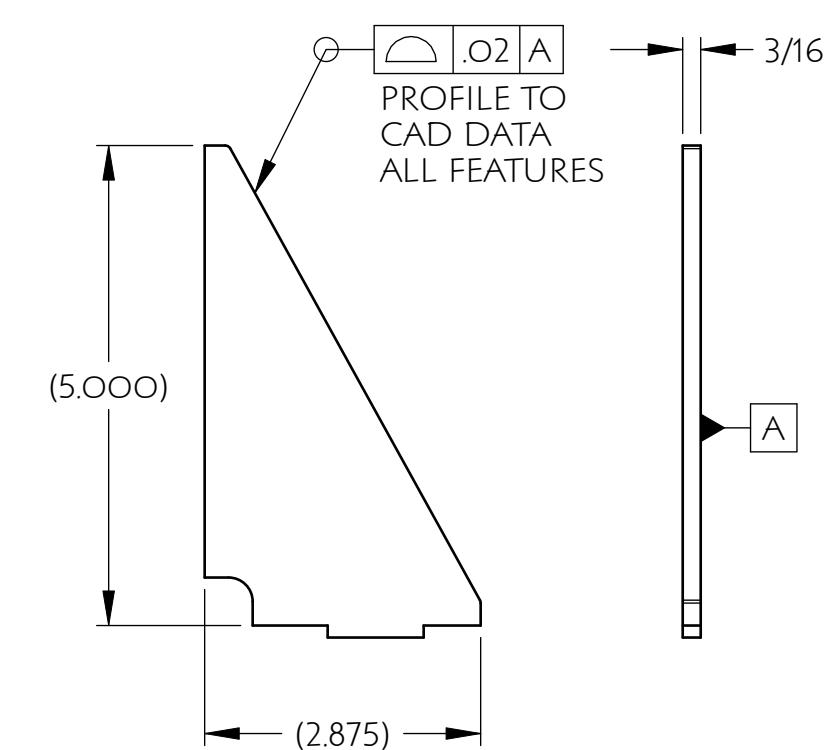
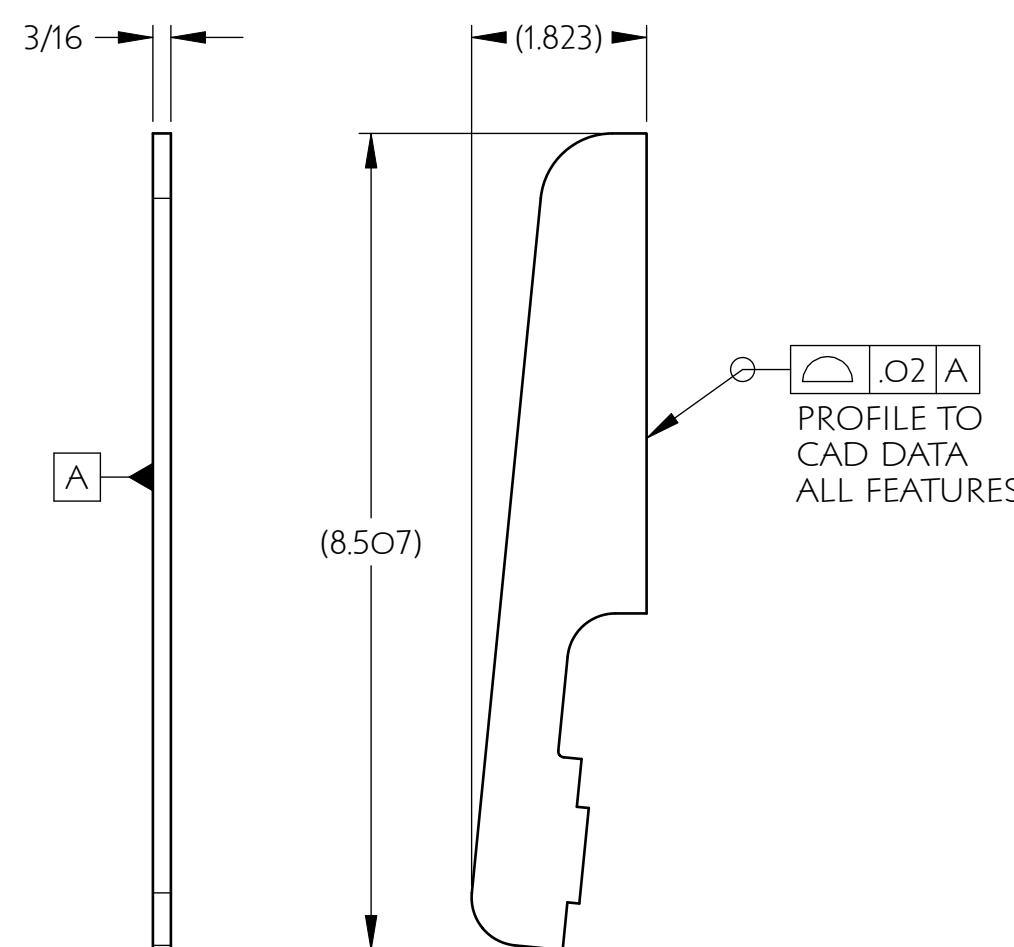
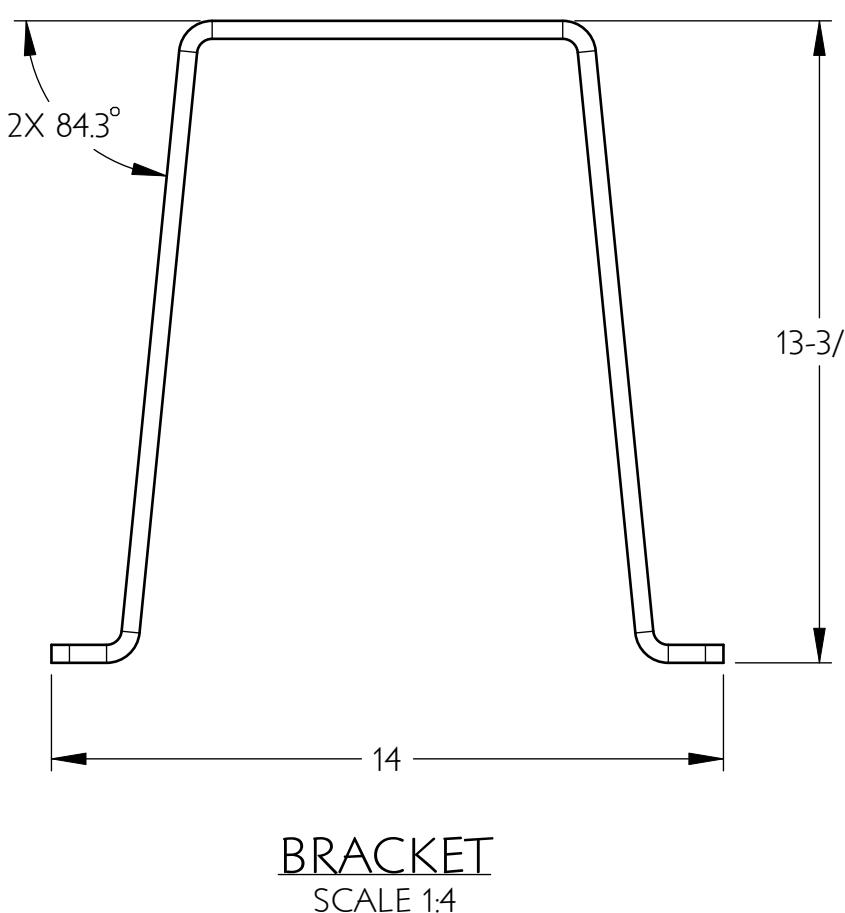
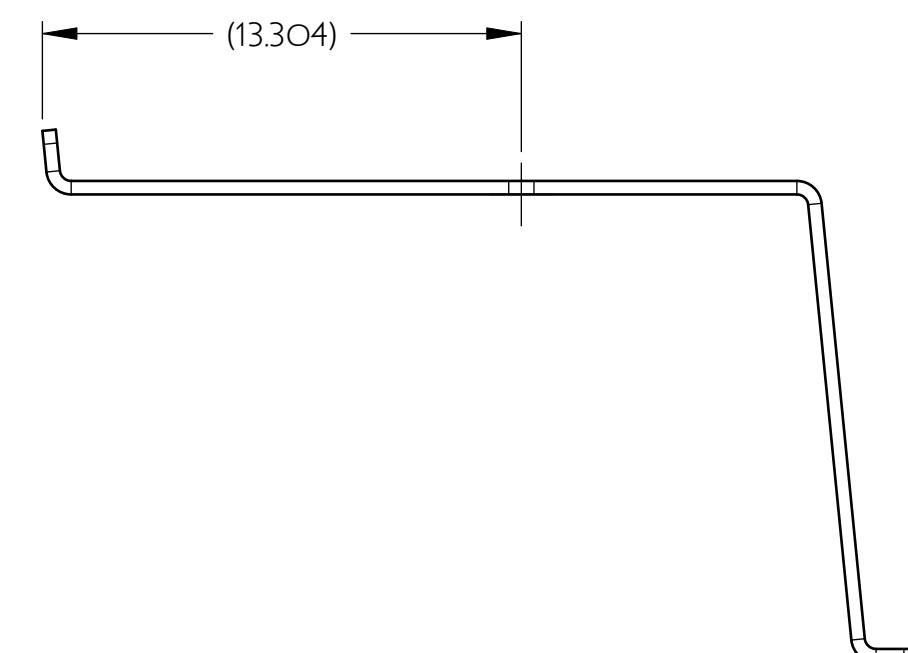
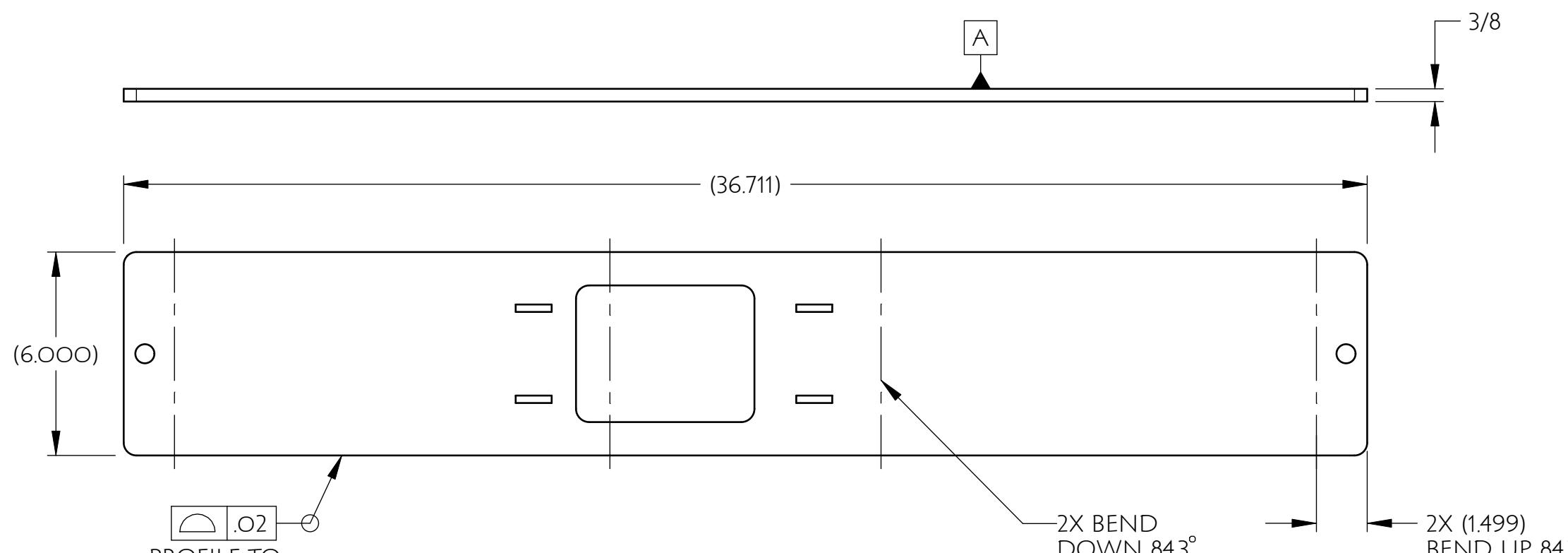
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SCALE 1:2

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2019-10-29  
Original Signed

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		SHEET 2 OF 2

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TOLERANCES AND FINISH UNLESS NOTED OTHERWISE

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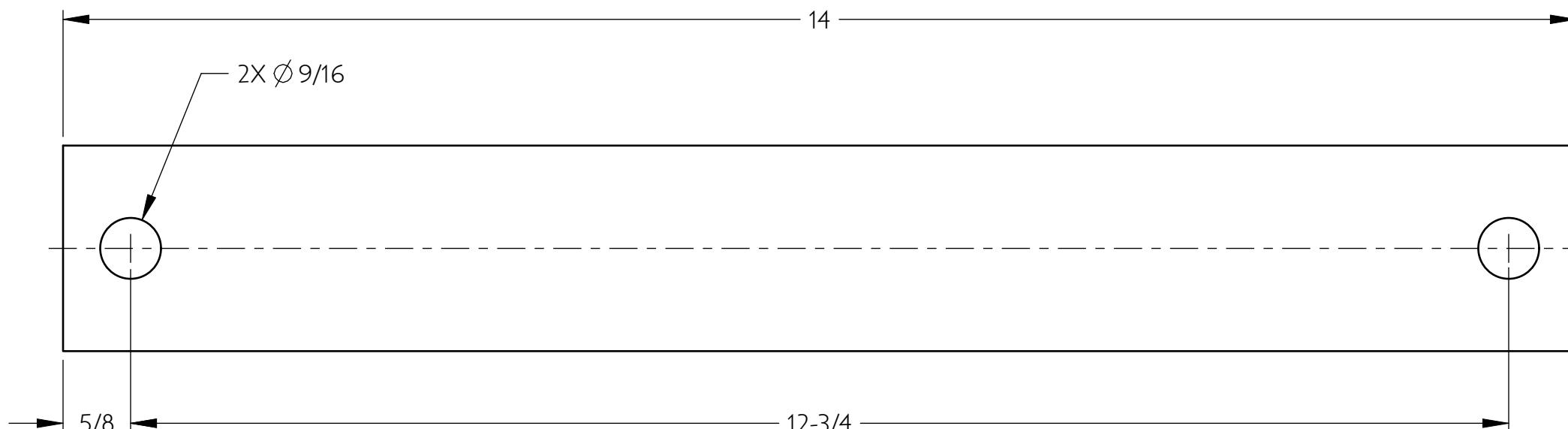
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2019-10-29  
Original Signed

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TOLERANCES AND FINISH UNLESS NOTED OTHERWISE							
<	X & X/X	XX	XXX	XXXX	FILLETS	CORNERS	125 / $\sqrt{MAX}$
$\pm .5^\circ$	$\pm 1/32$	$\pm .01$	$\pm .005$	$\pm .0010$	.02 MAX	.02 MAX	$\checkmark MAX$

CHECKED [REDACTED]	TITLE	FASTENING PIPE		REV
APPROVED		 	ANGLE PROJECTION	DRAWING N°
				PO25-0003-00
DATE	2019-10-29	SCALE 3:4		SHEET 1 OF 1

4

3

2

1

## **Appendix G – Hoarding Information**

---

Opaque construction hoarding material shall covering and be adequately secured to the rigid fencing that outlines the encroachment area. This covering shall be continuous such that it prevents passersby or tourist from seeing through the fencing and gates to the active construction site.

UltraMesh® Eclipse® if a 7.96 oz. which is a polyester, black-backed mesh that is used where complete opacity is required.

UltraMesh Eclipse is UV printable for project renderings and is typically used for building and fence graphic wraps. The product is available in widths of 126" and 196".

Product example is shown below with the technical data sheet on the following page.

#### Tarp Option



Print Banner Option





# Technical Data Sheet

## UltraMesh® Eclipse®

UltraMesh Eclipse is a 7.96 oz. polyester, black-backed mesh. The material is ideal for applications where complete opacity is required. UltraMesh Eclipse is UV printable and may be used for building wraps and fence graphics. Available in widths of 126 and 196 .

### Material Details

CHARACTERISTICS	TEST METHOD	METRIC	ENGLISH
Base Fabric	100% PES	1000D×1000D	
Construction		12×12	
Total Weight	DIN53352 BS3424 Method5A	270 +/- 20 gsm/m <sup>2</sup>	7.96 oz/yd <sup>2</sup>
Width		Up to 500cm	
Tensile Strength	DIN53352 BS3424	Warp 1250 n/5cm Weft 1100 n/5cm	142.75 x 130.19 lb/in
Tear Strength	DIN53356 BS3424	Warp 235 N Weft 225 N	52.8 x 50.5 lbf
Air Permeability	GB/T 2410-2008	2649 mm/s	
Light Transmission	GB/T 5453-1997	37%	
Temperature Resistance	DIN53357 BS3425 Method 10	-20°C /70°C	

### Applications

	Back-lit	Banner	Billboard	Block-out	Building Wrap	Fence Graphics	Truckside
Applications		■		■	■	■	

### Ink Printability

Solvent	Eco Solvent	UV	Latex	Screen Printing	Dye Transfer	Dye Direct
		■				

### Available Sizes

Metric (m)	English (inches)
3.20, 5.00	126 , 196

The information on physical and chemical characteristics is based upon tests believed to be reliable. The values are intended only as a source of information. A legally binding guarantee of specific properties is not to be inferred from our specifications. They are given without warranty and do not constitute a warranty. A weight variance of +1/-2 is acceptable. The purchaser should independently determine, prior to use, the suitability of this material for his/her specific purpose. (Data represents averages and is not intended for use as a specification.)



[www.ultraflexxx.com](http://www.ultraflexxx.com)

updated: 12/2016

**Ultraflex Systems Inc.**  
Headquarters  
203 Kelsey Lane, Suite E  
Tampa, FL 33619  
P: (873)627-8508  
Email: sales@Ultraflexx.com

**Ultraflex Systems Inc.**  
1578 Sussex Turnpike, Bldg. 4  
Randolph, NJ 07070  
P: (973)627-8508  
Email: sales@Ultraflexx.com

**Ultraflex Europe**  
Unit 1 Hardwick Road Industrial Park  
Great Gransden Bedfordshire  
England SG19 3BJ  
Phone: (44)1767-677-100  
Email: sales@ultraflexeurope.com

**Ultraflex Mexico**  
Av. Patrón No. 2804  
Loma Bonita Sur.  
Zapopan, Jalisco CP45086  
Mexico  
Tel: (55)312-049-857  
Email: sales.mx@ultraflexx.com

**Ultraflex Guadalajara**  
Av. Patrón No. 2804  
Loma Bonita Sur.  
Zapopan, Jalisco CP45086  
Mexico  
Tel: (55)312-049-857

## **Appendix H – Project Information Board**

---



## PROPOSED MILLS DEVELOPMENT

**5486 SPRING GARDEN ROAD**

**180 UNIT RESIDENTIAL BUILDING WITH  
5 TOWNHOMES, 31,520 SF COMMERCIAL  
SPACE & UNDERGROUND PAKING**

**March 2021 – June 2023**

**Owner:**

Westwood Construction Limited  
5881 Spring Garden Road, Suite 100  
Halifax, NS, B3H 4S3

**Contact: Jamie Haddad – 902-830-1551**

**24 Hour Emergency contact**

**Contractor:**

Bird Construction Company  
20 Duke Street, Bedford, NS, B4A 2Z5  
Contact: 902-835-8205

**Traffic Control:**

Eastern Traffic Services  
Rocky Lake Drive, Bedford, NS, B4A 3Z2  
Contact: John Smith – 902-209-2902

**Rodent Control Company:**

Rentokil Pest Control  
51 Duke Street, Bedford, NS, B4A 2Z2  
Contact: 902-835-2304

## **Appendix I – Project Safety Signage**

---

**NO  
TRESPASSING**



**RESTRICTED  
— AREA —**

**CONSTRUCTION  
WORK IN  
PROGRESS**

## Appendix J – Project Signage Specifications

---

Signage Specifications: Project Signage shall;

- Be constructed of weatherproof material (corrugated plastic)
- Have high visibility contrasting colours (dark letters on white background)
- Incorporate appropriate font types (mix of upper and lower-case lettering)
- Incorporate appropriate font sizes (16mm – 51mm) such that the signage is readable from a distance (16-20m)
- Size of signage will be poster size (600mm x 900mm) or larger; to allow community members to see and read the information from a distance
- Signage may incorporate plastic grommets positioned every 300mm around the perimeter of the signage to ensure a secure signage installation
- Signage will be installed/anchored to project fencing using plastic zip-ties
- Signage will be positioned along the project site as per the encroachment plan
- Signage shall not impede traffic or pedestrian sight lines
- **Signage shall be placed on site 10 days prior to the start of the noted construction activity to ensure the passing public has had adequate time to review, adjust their travel patterns, usage of streets and or cab be considered ‘informed’.**

Samples



## Appendix K – Sample Traffic Notification Letter

---

## **PROPOSED MILLS DEVELOPMENT**

### **5486 Spring Garden Road**

#### **DRAFT NOTIFICATION LETTER**

**TO WHOM IT MAY CONCERN**

**Date**

#### **NOTIFICATION OF TRAFFIC DISRUPTION: STREET NAME, HALIFAX, NOVA SCOTIA**

This is to inform you that to facilitate operations in association with the Multi-Unit Residential Building and townhouse construction work, traffic disruptions will occur on or about **DATE** with an anticipated duration of approximately **TIME**. The street will be **reduced(?)** to one lane of vehicular traffic during this time.

Should you have any questions or concerns please feel free to contact the below:

#### **CONTACT INFORMATION**

General Contractor:

**Bird Construction Company**

**20 Duke Street**

**Bedford, NS**

**B4A 2Z5**

**Phone: (902) 835-8205**

Should any questions arise, please feel free to contact the undersigned.

Yours Truly,

**Contact Name**

**Bird Construction Company**

## **Appendix L -Vehicular and Pedestrian Hazard Assessment**

---

## VEHICULAR &amp; PEDESTRIAN HAZARD ASSESSMENT

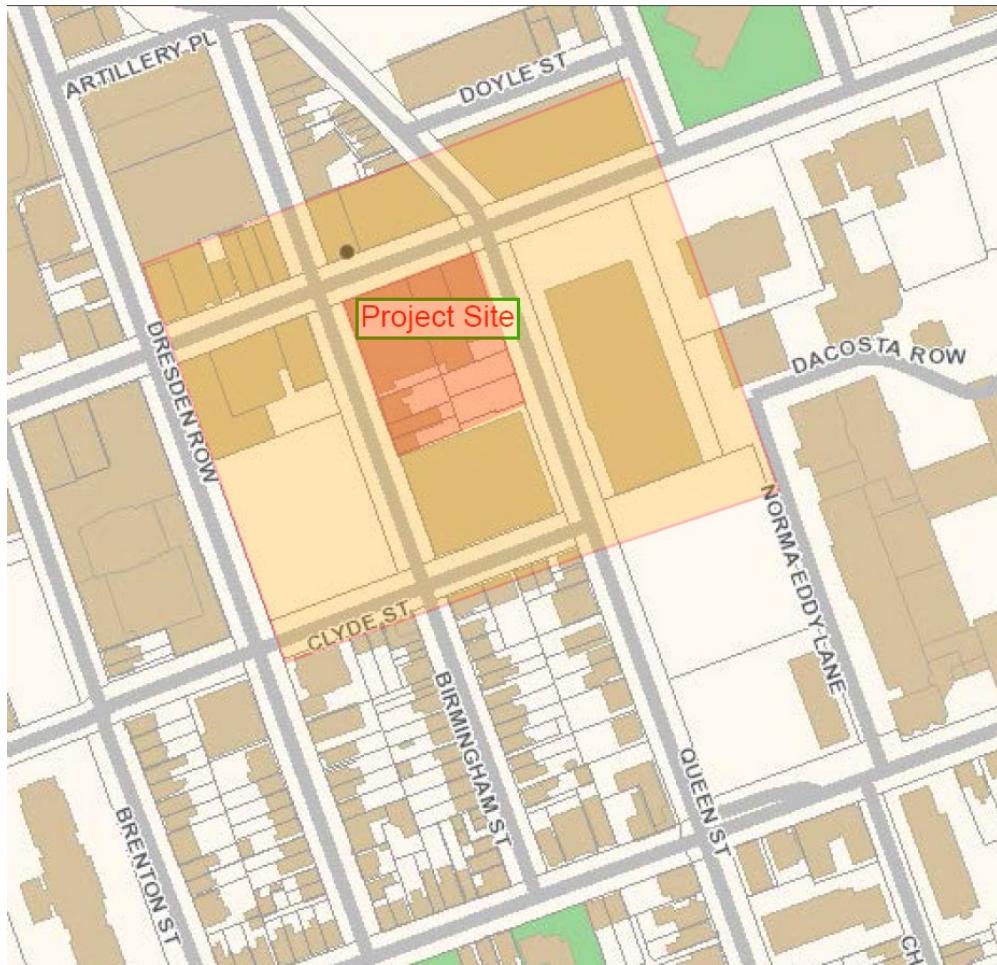
No.	Hazard:	Project Phase:	Vehicular Impacts:	Mitigation Methods:	Pedestrian Impacts:	Mitigation Methods:
1	Excavation	Excavation	Vehicles may enter project site and fall down excavation.	Place concrete barriers along travel ways. Concrete barriers and existing curbs to prevent vehicle entry.	Pedestrians may enter project site and fall down excavation.	Place concrete barriers/rigid fencing around entire project site. Signage will be posted to direct pedestrians to opposite side of street.
			Vehicle weight may surcharge excavation, causing excavation wall failure.	Close sidewalks & driveways adjacent to project site, moving vehicles farther away from excavation.		
2	Rock Blasting	Excavation	Blasted rock projectiles may strike vehicles.	Close sidewalks & driveways adjacent to site, moving vehicles farther away from blasted rock.	Blasted rock projectiles may strike pedestrians.	Install solid plywood hoarding along rigid fence adjacent to blasting zone.
3	Construction Waste	All Phases	Vehicles may be struck by construction waste.	The contractor shall keep the project site and surrounding areas clean and free of construction debris.	Pedestrians may be struck by construction waste.	The contractor shall keep the project site and surrounding areas clean and free of construction debris.
4	Vehicular & Pedestrian Activities	All Phases	Drivers and pedestrians may become confused or impatient with construction activities. Pedestrians may walk in unmarked crosswalks or in vehicular travel areas. Drivers may fail to obey traffic signage.	Vehicular and pedestrian signage will be posted prominently around the project site to facilitate pedestrian movement. Notification will be sent prior to all traffic interruptions.	Drivers and pedestrians may become confused or impatient with construction activities. Pedestrians may walk in unmarked crosswalks or in vehicular travel areas. Drivers may fail to obey traffic signage.	Vehicular and pedestrian signage will be posted prominently around the project site to facilitate pedestrian movement. Notification will be sent prior to all traffic interruptions.
5	Heavy Machinery Operation	All Phases	Heavy machinery or vehicles may break down or overturn, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site. Concrete barriers will be installed to separate construction vehicles from public traffic.	Heavy machinery or vehicles may break down or overturn, injuring pedestrians.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery. Rigid fences will be installed to separate construction vehicles from pedestrians. Signage will direct pedestrians to opposite side of street.
			Heavy machinery or vehicles may overturn due to uneven terrain, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site and ensure travel routes are kept flat.	Heavy machinery or vehicles may overturn due to uneven terrain, injuring pedestrians. Pedestrians may walk on uneven terrain causing them to twist their ankles or fall.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery and ensure travel routes are kept flat.
6	Construction Signage	All Phases	Construction signage may strike vehicular traffic.	Construction signage will be securely fixed to existing poles, temporary concrete sign bases, or rigid fences.	Pedestrians may walk into construction signage, including traffic signage, wayfinding signs, etc. may.	Signage will be angled in line with pedestrian routes and/or placed at heights such that they do not pose a risk to pedestrians.
					Construction signage may strike pedestrians.	Construction signage will be securely fixed to existing poles, temporary concrete sign bases, or rigid fences.
7	Dangerous Materials	All Phases	Flammable, explosive, & hot materials may damage vehicles if not properly maintained & stored.	The contractor will use and store dangerous materials properly as per manufacturers' specifications.	Flammable, explosive, & hot materials may injure pedestrians if not properly maintained & stored.	The contractor will use and store dangerous materials properly as per manufacturers' specifications.
8	Hoisting Operations	Superstructure	Precast concrete panels and other items hoisted may fall from heights and damage vehicles.	Proper hoisting and lifting techniques will be used to ensure that materials do not fall from heights. F-Type concrete barriers will be installed such that loads are never suspended above the public realm.	Precast concrete panels and other items hoisted may fall from heights and injure pedestrians.	Proper hoisting and lifting techniques will be used to ensure that materials do not fall from heights. Loads are never suspended above the public realm.
9	Reinstatement of Public Infrastructure & Service Installation	Superstructure	Heavy equipment and hot concrete used during public infrastructure reinstatement and service installation may cause damage to vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site. Concrete barriers will be installed to separate construction vehicles from public traffic during public infrastructure reinstatement and service installation.	Heavy equipment and hot concrete used during public infrastructure reinstatement may injure pedestrians.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery.
10	Fallen debris	Superstructure	Debris may fall from upper stories of the new building causing damage to vehicles.	F-Type concrete barriers will be installed such that a safe distance is maintained between the building envelope and vehicular traffic.	Debris may fall from upper stories of the new building injuring pedestrians.	Construction of upper building levels will be set back from the property line/rigid fencing, thus separating pedestrians from potential fallen debris. Pedestrians will be directed to opposite side of street.

## **Appendix M - Community Consultation Records**

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# COMMUNITY CONSULTATION MAP OVERVIEW

## Project – 5486 SPRING GARDEN ROAD



# Notification Letter

Date: \*\*\*\*\*

Westwood Construction Limited – Building Construction Information Meeting

Dear Neighbour,

As you may be aware, we are planning a Multiunit residential and commercial building project at 5486 Spring Garden Road, Halifax.

If you are interested in receiving more information about our construction plans, practices, schedule and to go over any questions you may have regarding construction of our new project please contact us to discuss. We would be happy to meet with you to discuss.

Thank you.

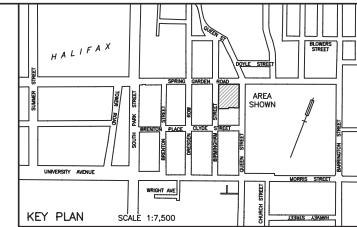
Jamie Haddad

Phone 902-425-7500

Email: [office@westwoodgroup.ca](mailto:office@westwoodgroup.ca)

## Appendix N – Rodent Control Plan

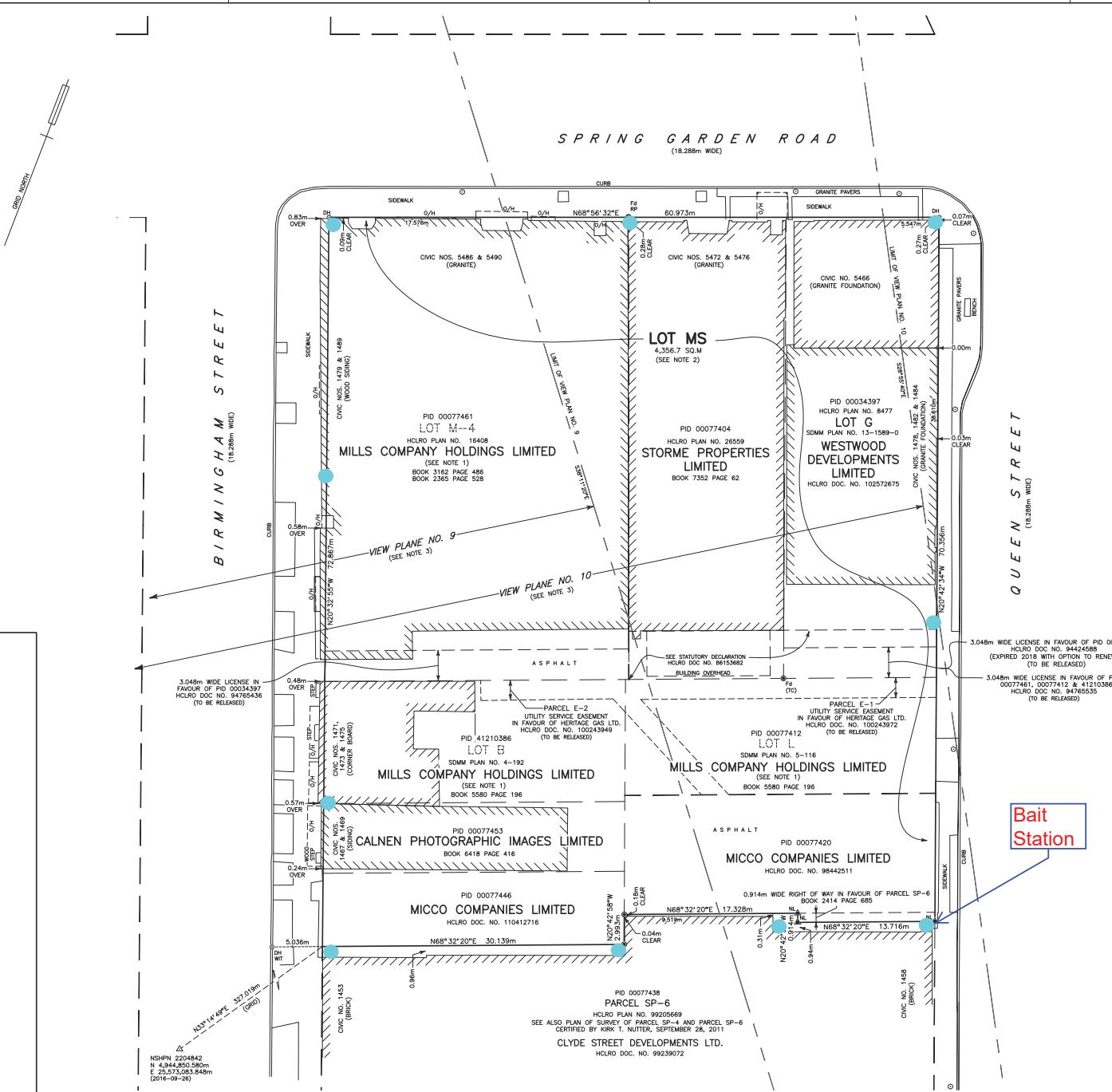
---



**LEGEND**

- △ NSHPN PERIMETER OF LANDS SURVEYED
- SURVEY MARKER SET
- ROCK
- HOLE SET
- △ NL MAIL SET WITH PLASTIC CAP
- LIGHT STANDARD
- HOLC HALIFAX COUNTY LAND REGISTRATION OFFICE
- WIT WITNESS POINT SET ON PROLONGATION OF BOUNDARY
- PID PARCEL IDENTIFICATION NUMBER
- Fd FOUND
- (TC) THOMPSON CONN LIMITED
- SQM SQUARE METERS
- O/H OVERHANG
- CONC CONCRETE

**Bait Station** ●  
**Rodent Control Plan**  
**Prepared for**  
**Rentokil Atlantic**  
**902-835-2304**  
**51 Duke Street, Bedford, NS**





## THE MOST ADVANCED LOW-PROFILE BAIT STATION

### PRODUCT FEATURES:



- ▶ Single locking mechanism for quick servicing
- ▶ Removable tray for easy cleaning
- ▶ Locking bait rods won't fall out during cleaning
- ▶ Dog & child tamper-resistant
- ▶ Can hold:
  - 4 - 1 oz. bait BLOX on 4 vertical rods
  - or -
  - T-Rex™ rat trap or Mini-Rex™ mouse trap
- ▶ Compatible with Sidekick® Load-N-Lock™ system

PRODUCT	CODE	DIMENSIONS (in)	CASE QTY
Protecta EVO Ambush	EA2000	8 1/2 x 10 1/4 x 4 1/4	6 Stations



More Than Meets The Eye

Madison, Wisconsin 53704 USA | Ph: (608) 241-0202 | Fax: (608) 241-9631

[www.belllabs.com](http://www.belllabs.com)

**ALL-WEATHER  
BLOX™**



# CONTRAC®

ALL-WEATHER BLOX™



**KILLS RATS, MICE & MEADOW VOLES\***

*Kills Warfarin Resistant Norway Rats*  
**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See back panels for First Aid and additional precautionary statements.

**ACTIVE INGREDIENT:**

Bromadiolone (CAS #28772-56-7) . . . . . 0.005%  
OTHER INGREDIENTS: . . . . . 99.995%  
†Contains Denatonium Benzoate      TOTAL 100.000%

\*Not permitted for use against the following species in California: Cotton rat, Eastern harvest mouse, Golden mouse, Polynesian rat, Meadow vole, White-throated woodrat, Southern plains woodrat, and Mexican woodrat.

**NET WT:  
18 lbs (8.2 kg)**





# DETEx® BLOX with LUMITRACK

## SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA  
Hazard Communication Standard 29 CFR 1910.1200

DATE OF ISSUE:  
January 2016

PREPARED BY:  
CAR

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** DETEx® BLOX with LUMITRACK

**EPA Registration Number:** NA

**Relevant identified uses of the substance or mixture and uses advised against**

**Relevant identified uses:** Activity Monitoring - Ready to use

**Uses advised against:** Use only for the purpose described above

### MANUFACTURER/SUPPLIER:

Bell Laboratories, Inc.

3699 Kinsman Blvd.

Madison, WI 53704, USA

Email: sds@belllabs.com

Phone: 608-241-0202

Medical or Vet Emergency: 877-854-2494 or 952-852-4636

Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

## SECTION 2. HAZARDS IDENTIFICATION

**Classification according to Regulation OSHA 1910.1200(d):** Not classified

**Signal Word:** None

See Section 15 for information on FIFRA applicable safety, health, and environmental classifications.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	% By weight
Inert and Non-Hazardous Ingredients (Unlisted components are non-hazardous)	Proprietary	100.00%

## SECTION 4. FIRST AID MEASURES

### Description of first aid measures

**Ingestion:** Non-Toxic

**Inhalation:** Not applicable.

**Eye contact:** Non-Toxic

**Skin contact:** Non-Toxic

### Most important symptoms and effects, both acute and delayed

Non-Toxic

**Advice to physician:** Non-Toxic

**Advice to Veterinarian:** Non-Toxic

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing media

Suitable Extinguishing Media: water, foam or inert gas.

Unsuitable Extinguishing Media: None known.

**Special hazards arising from the mixture:** High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide.

**Advice for firefighters:** Wear protective clothing and self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** None. Non-Toxic

**Environmental precautions:** None. Non-Toxic

### Methods and materials for containment and cleaning up

**For Containment:** None. Non-Toxic

**For Cleaning Up:** None. Non-Toxic

**Reference to other sections:** Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and disposal considerations.

## SECTION 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not use near heat sources, open flame, or hot surfaces. Non-Toxic.

**Conditions for safe storage, including any incompatibilities:** None. Non-Toxic

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Established Limits

Component	OSHA	ACGIH	Other Limits
None	Not Established	Not Established	Not Established

**Appropriate Engineering Controls:** None. Non-Toxic

**Occupational exposure limits:** None. Non-Toxic

### Personal Protective Equipment:

**Respiratory protection:** Not required

**Eye protection:** Not required

**Skin protection:** None. Non-Toxic

**Hygiene recommendations:** None. Non-Toxic

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance/Color:</b>	Tan wax block
<b>Odor:</b>	Sweet grain-like
<b>Odor Threshold:</b>	Not applicable, odor not associated with a hazardous material.
<b>pH:</b>	Not applicable, is not dispersible with water.
<b>Melting point:</b>	Not applicable
<b>Boiling point:</b>	Not applicable
<b>Flash point:</b>	Not applicable, does not contain components classified as flammable.
<b>Evaporation rate:</b>	Not applicable, is a solid.
<b>Flammability:</b>	Not applicable, is a solid.
<b>Upper/lower flammability or explosive limits:</b>	Not applicable, does not contain components classified as flammable or explosive.
<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density:</b>	Not applicable, is a solid
<b>Relative Density:</b>	1.13 g/mL @ 20°C
<b>Solubility (water):</b>	Not water soluble
<b>Solubility (solvents):</b>	Not applicable
<b>Partition coefficient: n-octanol/water:</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not applicable, does not contain components classified as flammable.
<b>Decomposition temperature:</b>	Not applicable
<b>Viscosity:</b>	Not applicable, is not a liquid.

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity:** Not Applicable

**Chemical stability:** Not Applicable

**Possibility of hazardous reactions:** Refer to Hazardous decomposition products

**Conditions to avoid:** Avoid extreme temperatures (below 0°C or above 40°C).

**Incompatible materials:** Not Applicable

**Hazardous decomposition products:** Not Applicable

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Acute Toxicity

**LD50, oral (ingestion):** Not Toxic

**LD50, dermal (skin contact):** Not Toxic

**LC50, inhalation:** Not Toxic

**Skin corrosion/irritation:** Not Toxic

**Serious eye damage/Irritation:** Not Toxic.

**Respiratory or skin sensitization:** Not Toxic

**Germ cell mutagenicity:** Not Toxic

**Carcinogenicity:** Not Toxic

Components	NTP	IARC	OSHA
None	NA	NA	NA

**Reproductive Toxicity:** Not Toxic

**Aspiration Hazard:** Not Toxic

**Target Organ Effects:** Not Toxic

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity Effects:** Not Toxic

**Persistence and degradability:** Not Toxic

**Bioaccumulative potential:** Not Toxic

**Mobility in Soil:** Not Toxic.

**Other adverse effects:** None.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal:** Wastes resulting from the use of this product may be placed in trash, on-site, or at an approved waste disposal facility. Dispose of all wastes in accordance with all Federal, state and local regulations.

## SECTION 14. TRANSPORT INFORMATION

**UN number:** Not regulated

**UN proper shipping name:** Not regulated

**Transport hazard class(es):** Not regulated

**Packing group :** Not regulated

### Environmental Hazards

**DOT Road/Rail:** Not considered hazardous for transportation via road/rail.

**DOT Maritime:** Not considered hazardous for transportation by vessel.

**DOT Air:** Not considered hazardous for transportation by air.

**Freight Classification:** LTL Class 60

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not applicable

**Special precautions for user:** None

## SECTION 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture:** Not applicable

**Signal Word:** None

**Precautionary Statements:** None

### Potential Health Effects:

**Eye Contact:** May cause irritation

**Skin Contact:** Non-irritating to the skin

**Ingestion:** Not harmful if swallowed

**TSCA:** All components are listed on the TSCA Inventory or are not subject to TSCA requirements

**CERCLA/SARA 313:** Not Toxic

**CERCLA/SARA 302:** Not Toxic

## SECTION 16. OTHER INFORMATION

For additional information, please contact the manufacturer noted in Section 1.

<b>NFPA</b>	Health: 0 (Not Toxic)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
<b>HMIS</b>	Health: 0 (Not Toxic)	Flammability: 1 (slight)	Reactivity: 0 (minimal)	Protective Equipment: None

**Disclaimer:** The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Bell Laboratories, Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all current data, including the approved product label, relevant to their particular use.

# Rentokil

Ehrlich | Western | Presto-X  
Your Local Pest Control Experts

# PestNetOnline

The complete online  
pest management  
and reporting solution



**Randy Hobbs**  
*Account Executive*

# What is PestNetOnline?

## Online reporting and analysis of all pest activity

- Intuitive and easy to use
- Complete visibility to minimize risks
- Increased efficiency with information at your fingertips
- Minimize exposure with all your pest control records and data in one place
- Stay in control with a smartphone app

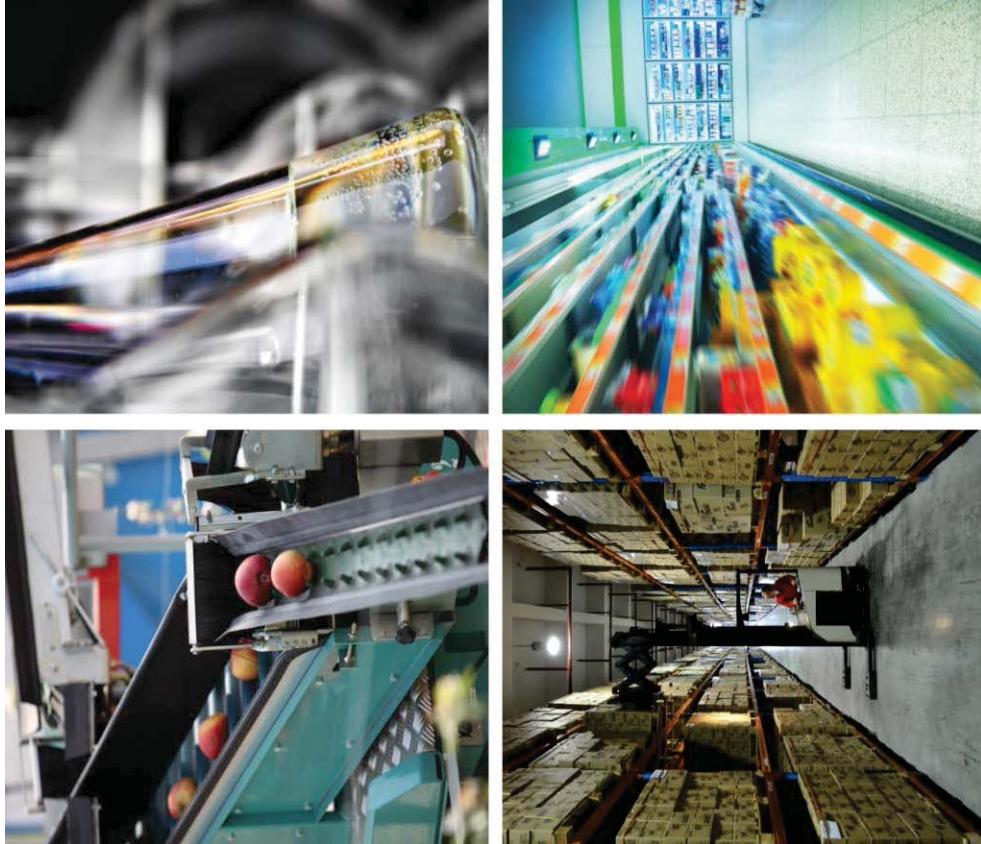


# Who is PestNetOnline for?

For Food and Beverage, Pharmaceutical, Logistics, Healthcare, Commercial/Residential Property, and Retail... any business that needs online pest management and reporting

## Offering:

- Personalized Dashboard
- Multiple and Single Site Locations
- Trend Analysis
- Detailed Service Reports
- Recommendation System
- Interactive Site Maps
- Documentation Availability
- Material Usage Reports
- Proof of Service



# How PestNetOnline works...

**1**



Pest devices  
are barcoded

**2**



Devices are scanned and information  
entered into a handheld device

**3**



Data is immediately transmitted at the  
end of the service

**4**



Data reaches the PestNetOnline  
servers

**5**



Service email notifications are sent to  
customer

**PestNetOnline**

Information is displayed in PestNetOnline  
and mobile applications

# PestNetOnline

## Single site locations

- Provides a comprehensive review of all visit details
- Pest Activity and Recommendation charts summarizing at a high level all issues
- Visit Filters allowing you to quickly locate series of visit and types of visits
- Review and reprint any Proof of Service
- Navigation tabs take you directly to Tasks, Recommendations, Pest Activity and Material Usage detail screen – quickly and easily

The screenshot displays the PestNetOnline software interface with a red header bar containing the logo and navigation tabs: Home, Dashboard, Reporting, Service History, Audit Compliance, Documents, Contact Us, and a search bar.

**Site Overview:** Shows a chart titled "Recommendations chart by age" with a Y-axis from 0 to 15 and an X-axis from 0 to 90 days. A blue bar represents "Days Recommended" with values 45, 44, 43, 42, and 41. A legend indicates "New" (red) and "Pending" (blue).

**Rentokil Visits:** A pie chart titled "Rentokil visits breakdown (over the last 12 calendar months)" showing 71.4% ROUTINE and 28.6% CALLOUT.

**My Contract:** Displays contract details: Contract Number: 05003654, Start Date: 22/07/2013, and Number of routine visits per year: 0.

# PestNetOnline

## For multi site locations

- A dashboard that summarizes all activity
- My Sites allows you to see an overview of your locations
- Navigation shortcuts allowing you to quickly and effortlessly research visit activity

## PestNetOnline

Welcome John Smith

Dashboard Reporting Contact Us

My Sites Overview - you have access to 432 sites

Breakdown of your sites

Number of sites with open Recommendation

Number of Recommendations

Number of Pest activity

Number of Open Recommendations

Number of sites you have...

30 Pending recommendations 24 Un-actioned recommendations

Modify Alert

Reporting

Sites with activity in the last 30 days

Sites with open recommendations

Create a report for a site or multiple sites

Reset filters

export data

Filter Results by: All

▼ Site name Date of Last Visit Pest activity Un-actioned Recommendations Pending Recommendations ▼ Recommendations (older than 90 days)

Site name	Date of Last Visit	Pest activity	Un-actioned Recommendations	Pending Recommendations	▼ Recommendations (older than 90 days)
101 ENTERPRISE	23/04/2013	House mice	0	2	2
200 DISTRIBUTION DR BLDG #934	23/01/2012	No	0	0	0
200 DISTRIBUTION DR BLDG #496	21/04/2014	No	0	0	0
200 DISTRIBUTION DR BLDG #796	15/04/2014	No	0	0	0
301 DISTRIBUTION DR BLDG #359	18/04/2014	Mice Sawdust-night flying, Fall flies	3	2	5

Previous 1 2 3 4 Next

# PestNetOnline

The screenshot shows the PestNetOnline software interface. At the top, there's a red header bar with the text "Welcome Client Name" and a "Logout" button. Below the header, the main menu includes "Dashboard", "Reporting" (which is highlighted in pink), "Contact Us", and a search bar. On the left, there's a sidebar with "Existing reports" and a "Create new" button. The main content area has a red title bar "Create a new report". It asks for a "Please enter a report title..." and lists "Pest Activity" and "Visits and tasks report". A large red box covers the next section, which is titled "1) Select report type and location". This section includes a "Type of report" dropdown with "All" selected, and checkboxes for "Pest activity", "Recommendations", and "Preparations". It also asks "What format should the report be?" with "Excel" selected. A red box covers the "Where would you like this report emailed to?" section, which contains an email input field "john.peffer@rentakill.com". Another red box covers the "When would you like the report to run?" section, which includes "One Off" and "Scheduled" options. A third red box covers the "What site locations would you link to report on?" section, with "All Internal" selected. A fourth red box covers the "Which sites would you like to report on?" section, showing "PestNetOnline Demo Account (E) (High Dependency)" and "PestNetOnline Demo Account (A) (Commercial)". A "continue" button is at the bottom right.

## Analysis and reports

- Provides quick, ad-hoc snapshot analysis reporting on all pest and device type activity
- Reports can be created to document Pest Activity, Recommendations, Visit Performance, Task Performance and Material Usage
- Reports are distributed to you via email
- Can be created and ran once, or proactively scheduled on a Daily, Week, Monthly or Quarterly basis upon your needs
- Many options available to customize a snapshot view of Pest Activity

# PestNetOnline

The screenshot shows the PestNetOnline software interface. At the top, there's a navigation bar with tabs for Dashboard, Reporting (which is selected), Service History, Audit Compliance, Documents, and Contact Us. Below the navigation bar, there's a search bar labeled 'Site Name' and buttons for 'Create chart' and 'Email or Print'. On the left, there's a sidebar titled 'Recommendations analysis' with 'Status' and 'Type' filters, and buttons for 'Reset Filters' and 'Update'. The main area is titled 'Analysis of recommendations by Type' and shows a bar chart for '825 Bluff Rd'. The Y-axis is 'Number of Recommendations' ranging from 0 to 2.5. The X-axis shows dates from Mar 2014 to Nov 2014. The legend indicates three types: Sanitation (red), Structural (blue), and Equipment (green). The chart shows several bars for each month, with the highest count in April 2014. Below the chart, there's a note area with a placeholder 'Enter new notes here'.

- Options to review an entire worksite, or specific Buildings / Floor / Zones within your worksite
- Feature rich with multiple date range options

- Provides quick, ad-hoc snapshot analysis on all pest activity
- Add commentary to charts

**Rentokil**

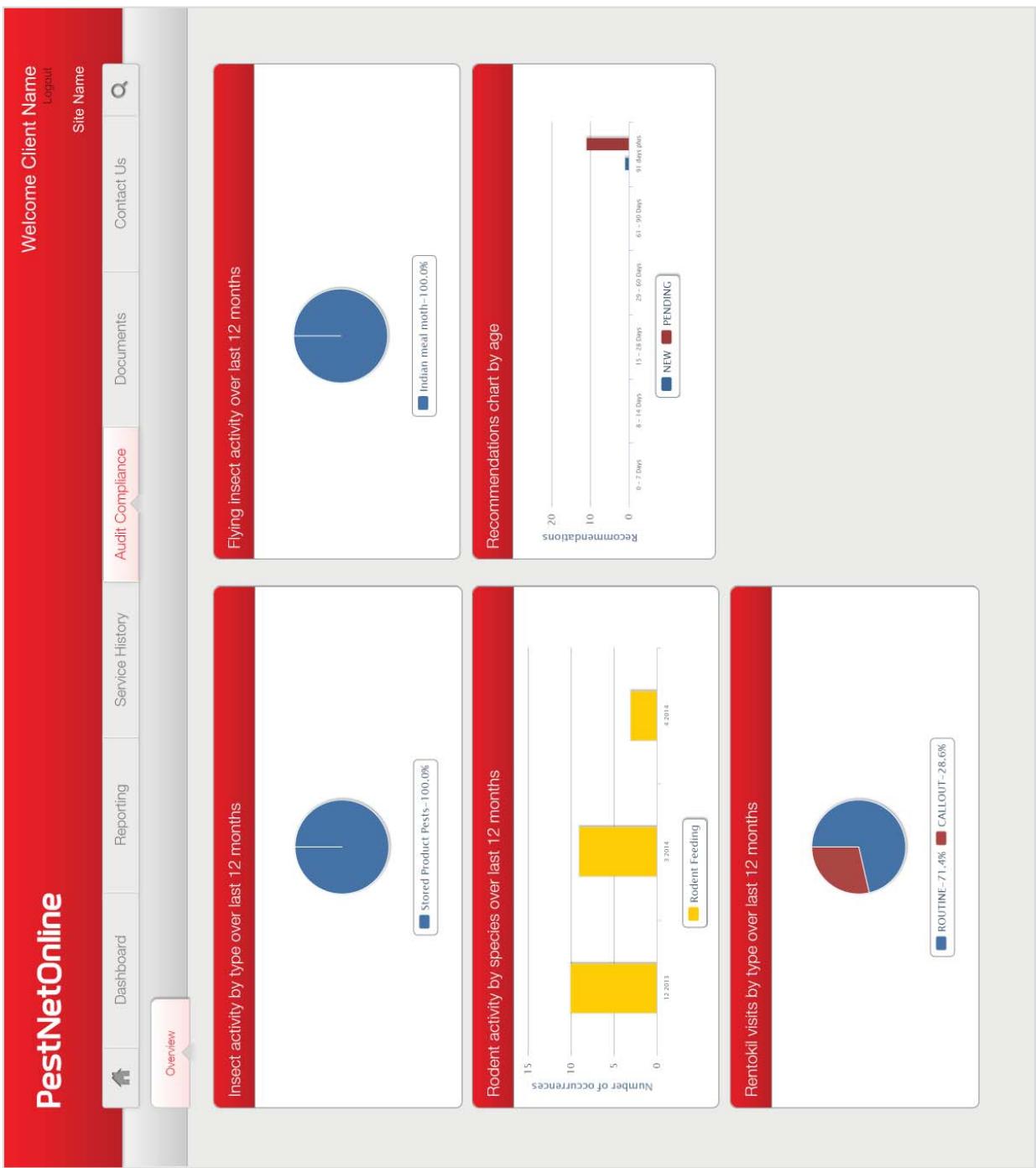
Ehrlich | Western | Presto-X  
Your Local Pest Control Experts

# PestNetOnline

For high dependency customers

- A Dedicated Audit Checklist page

- For AIB, BRC, and Other 3rd Party Auditors, a single page that brings together all necessary visit details and links to related information



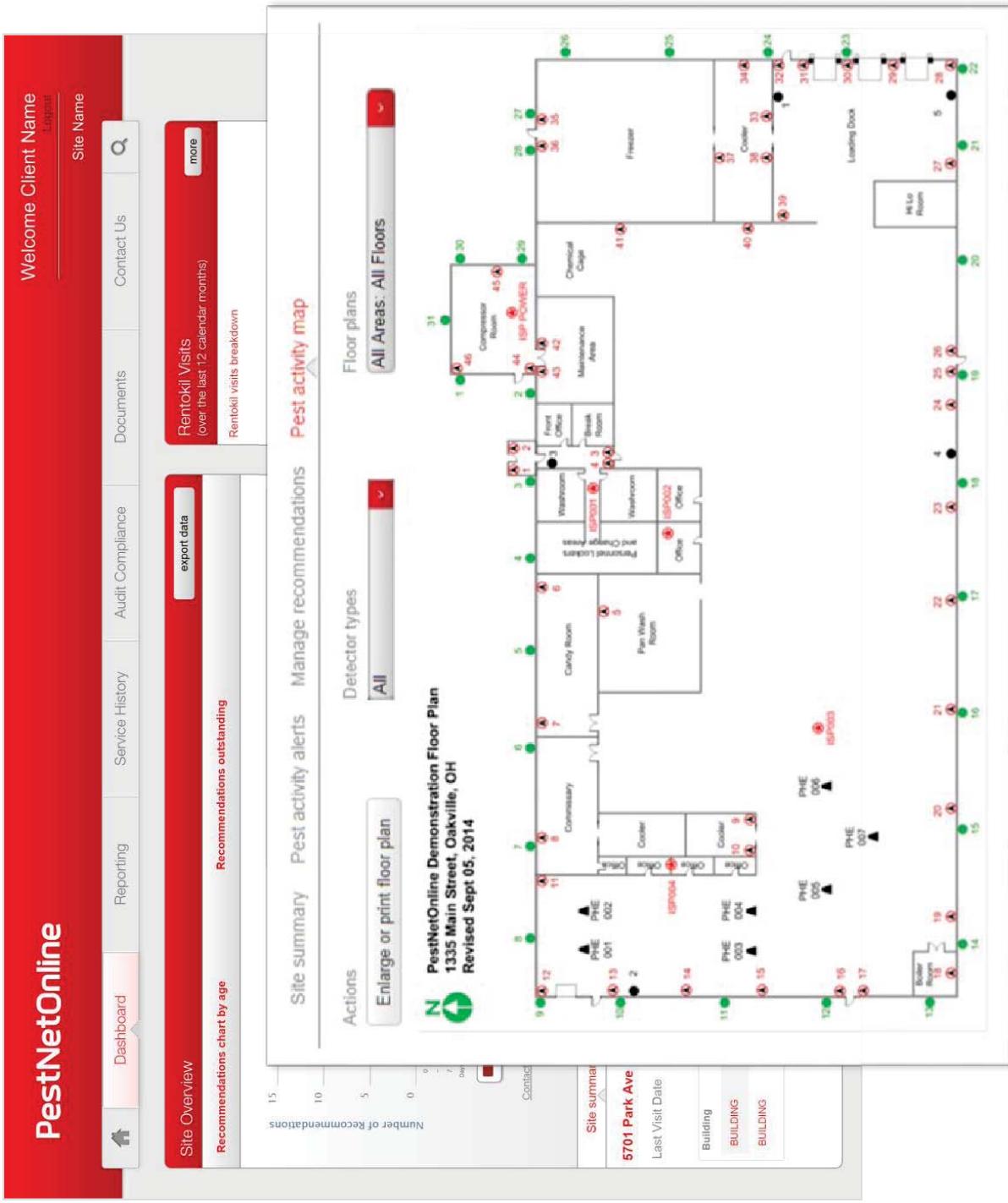
# PestNetOnline

**Site plans for high dependency and commercial customers**

- Provide a interactive, graphic representation of device location

- Filters allow you to locate specific types (Mechanical Rodent Traps, Pheromone, etc.) quickly and easily

- Site Maps may also be printed if desired



# PestNetOnline

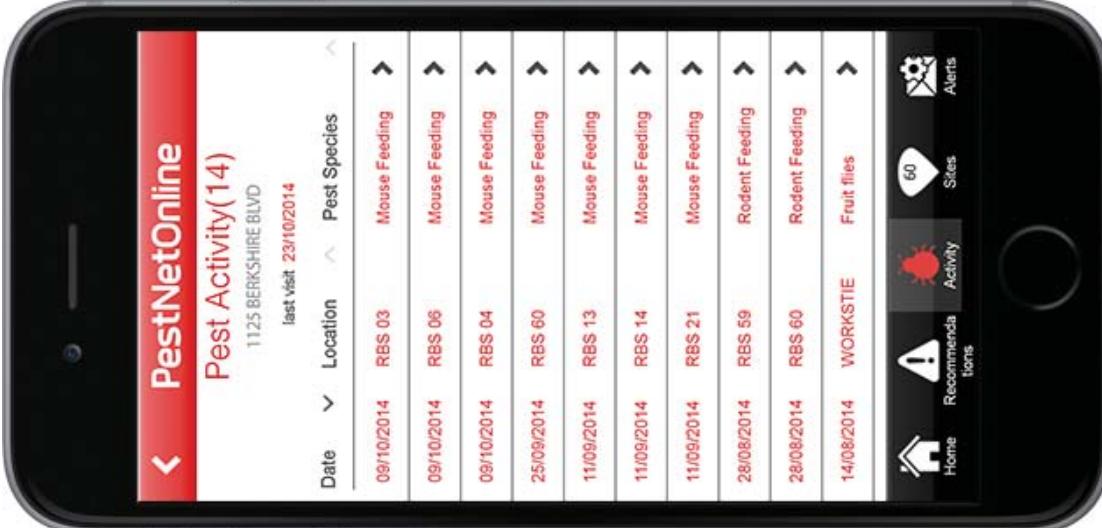
Site Documents,  
available to all users of  
PestNetOnline  
compliments all printed  
log book information  
electronically

## PestNetOnline

The screenshot shows the PestNetOnline software interface. At the top, there is a red header bar with the text "Welcome Client Name" and "Logout". Below this is a navigation bar with tabs: "Dashboard" (selected), "Reporting", "Service History", "Audit Compliance", "Documents" (highlighted in red), "Contact Us", and a search icon. The main content area has a light gray background. On the left, there is a sidebar with tabs: "Site Documents" (selected), "Site Plan", and "Documents list". The main content area is divided into several sections, each with a red header bar and a list of documents. The sections include:

- TECH LICENSES, BUSINESS LICENSES, TRAINING CERTIFICATES**
  - Rentokil Background Check policy**  
Created by : 04/04/2014 | Version : 1 | Expired by : [Redacted]
  - Technician License - John Doe**  
Created by : 03/10/2014 | Version : 1 | Expired by : 06/30/2016
  - GMP Training Certificate - John Doe**  
Created by : 01/01/2014 | Version : 1 | Expired by : [Redacted]
- INSURANCE CERTIFICATES**
  - Insurance Certificate**  
Created by : 01/01/2014 | Version : 1 | Expired by : 31/12/2014
- FACILITY ASSESSMENTS**
  - IPM Facility Assessment 2014**  
Created by : 03/01/2014 | Version : 1 | Expired by : [Redacted]
  - IPM Facility Assessment 2013**  
Created by : 14/01/2013 | Version : 1 | Expired by : [Redacted]

# PestNetOnline Smartphone App

- **Home Screen**
    - Open recommendations
    - Instances of activity (last 90 days)
  - **Recommendations**
    - Open recommendations total and by site
    - Open recommendations within a single site
    - Individual recommendation detail
      - Update the recommendation on the spot!
  - **Activity**
    - Overall activity and activity instances by site
    - Last 90 days activity within a single site
    - Activity details and materials used
  - **Site list and recommendation and activity indicators**
    - Email alerts creation
- 
- The smartphone screen shows the PestNetOnline app interface. At the top, a red header bar contains the text 'PestNetOnline' and 'Pest Activity(14)'. Below this, the address '1125 BERKSHIRE BLVD' and 'last visit 23/10/2014' are displayed. A table lists 14 entries of pest activity, each with a date, location, species, and a 'View' icon. The table has columns for Date, Location, Pest Species, and View. The data includes entries like '09/10/2014 RBS 03 Mouse Feeding >', '09/10/2014 RBS 06 Mouse Feeding >', and so on up to '14/08/2014 WORKSTIE Fruit files >'. At the bottom of the screen, there are several navigation icons: a house icon for 'Home Recommendations', a red sun-like icon for 'Activity', a blue shield icon for 'Sites', and a gear icon for 'Alerts'. There is also a notification badge showing '60'.

# PestNetOnline Flexibility

**PestNetOnline offers three levels of functionality**

- Whether you are a homeowner, local retailer, business with multiple branches or manufacturer, PestNetOnline will meet all of your business needs

Level	Residential	Commercial	High Dependency
Functionality	Privately owned residences, condos, and townhouses	Commercial organizations that do not require third party audit support	Businesses and organizations who utilize any third party audit group
Barcode Structure	One barcode is required	✓	✓
Materials Usage	Only through reporting	✓	✓
Pest Activity	✓	✓	✓
Updating Recommendations	✓	✓	✓
Visit Details	✓	✓	✓
Single Site Reporting	✓	✓	✓
Documents	✓	✓	✓
Reports	✓	✓	✓
Smartphone app (lite version)	✓	✓	✓
Alerts	X	✓	✓
Multi-Site Reporting	X	✓	✓
Detector History	X	✓	✓
Trends Analysis	X	✓	✓
Tasks	X	✓	✓
Site Plans	X	X	✓
Audit Compliance	X	X	✓

# PestNetOnline

For more information visit [pnol.rentokilna.com](http://pnol.rentokilna.com)

## Appendix O – CMP's TCP & PMP Inspection Records

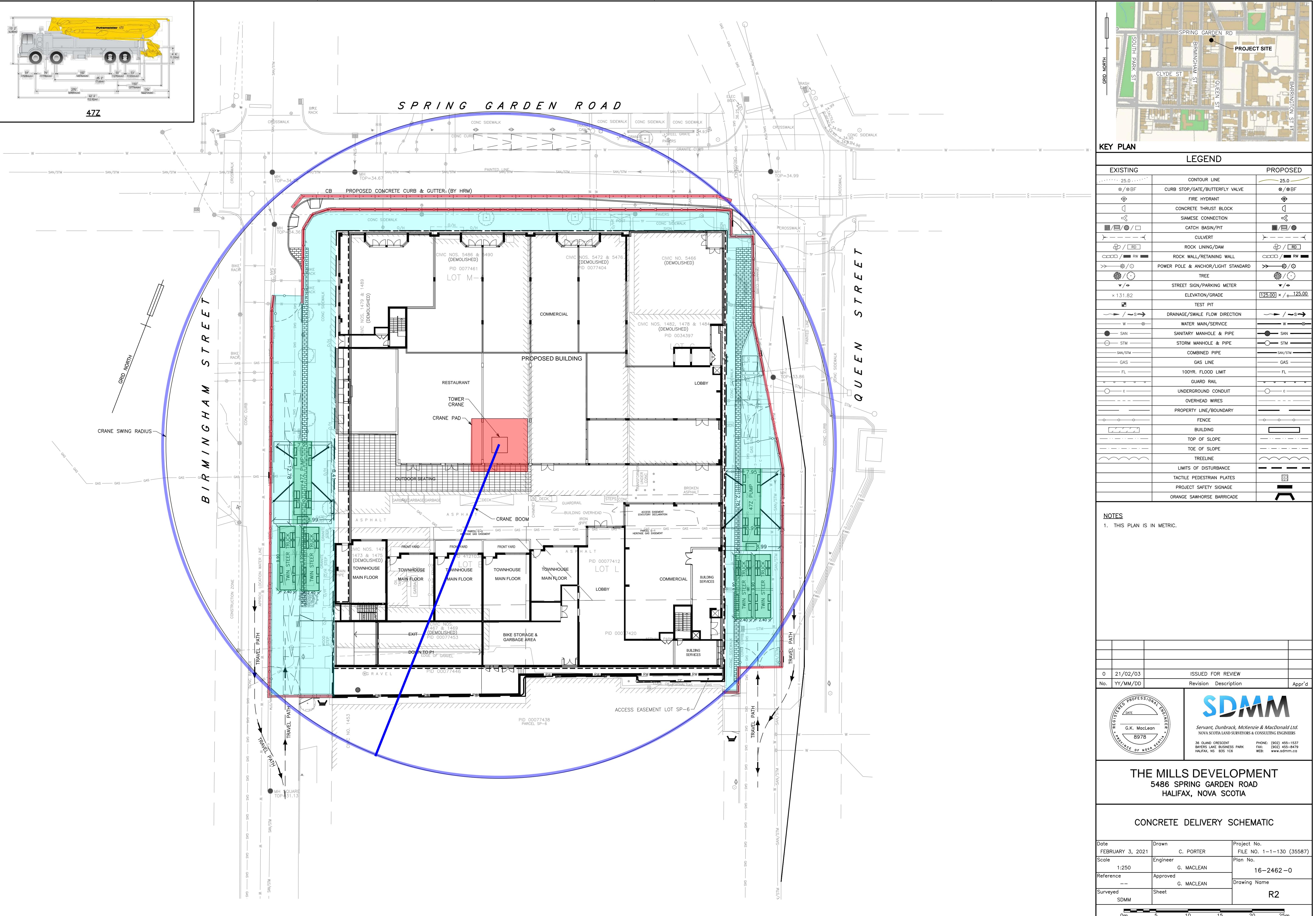
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Project: \_\_\_\_\_ Location: \_\_\_\_\_ Phase: \_\_\_\_\_ Date: \_\_\_\_\_ Inspector: \_\_\_\_\_

## **CONSTRUCTION MANAGEMENT PLAN - INSPECTION CHECKLIST**

## **Appendix P – Concrete Delivery Schematic**

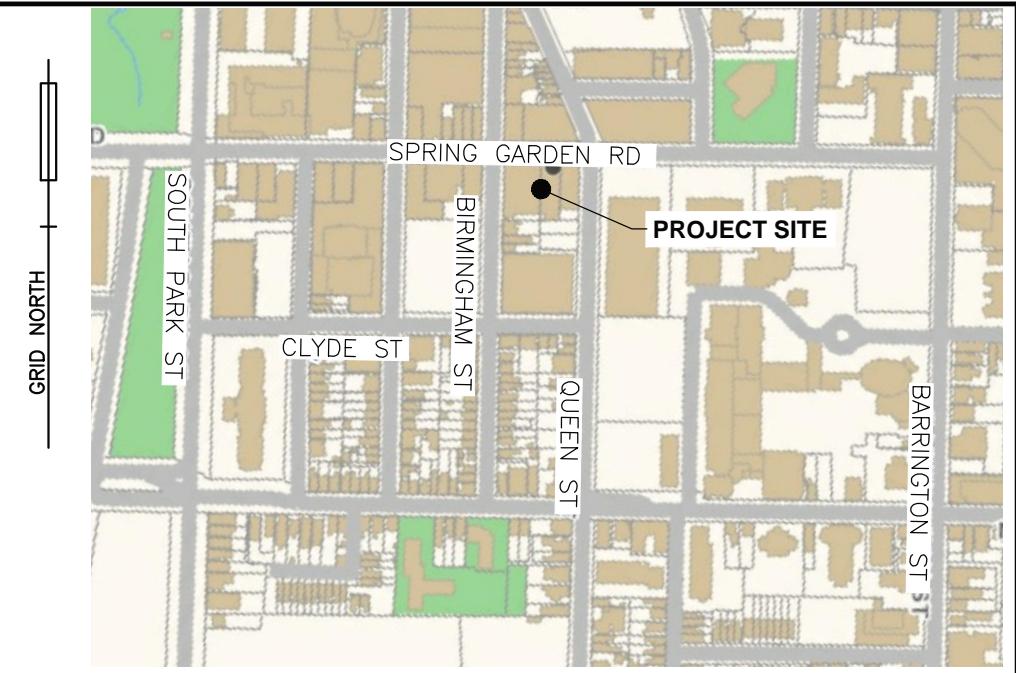
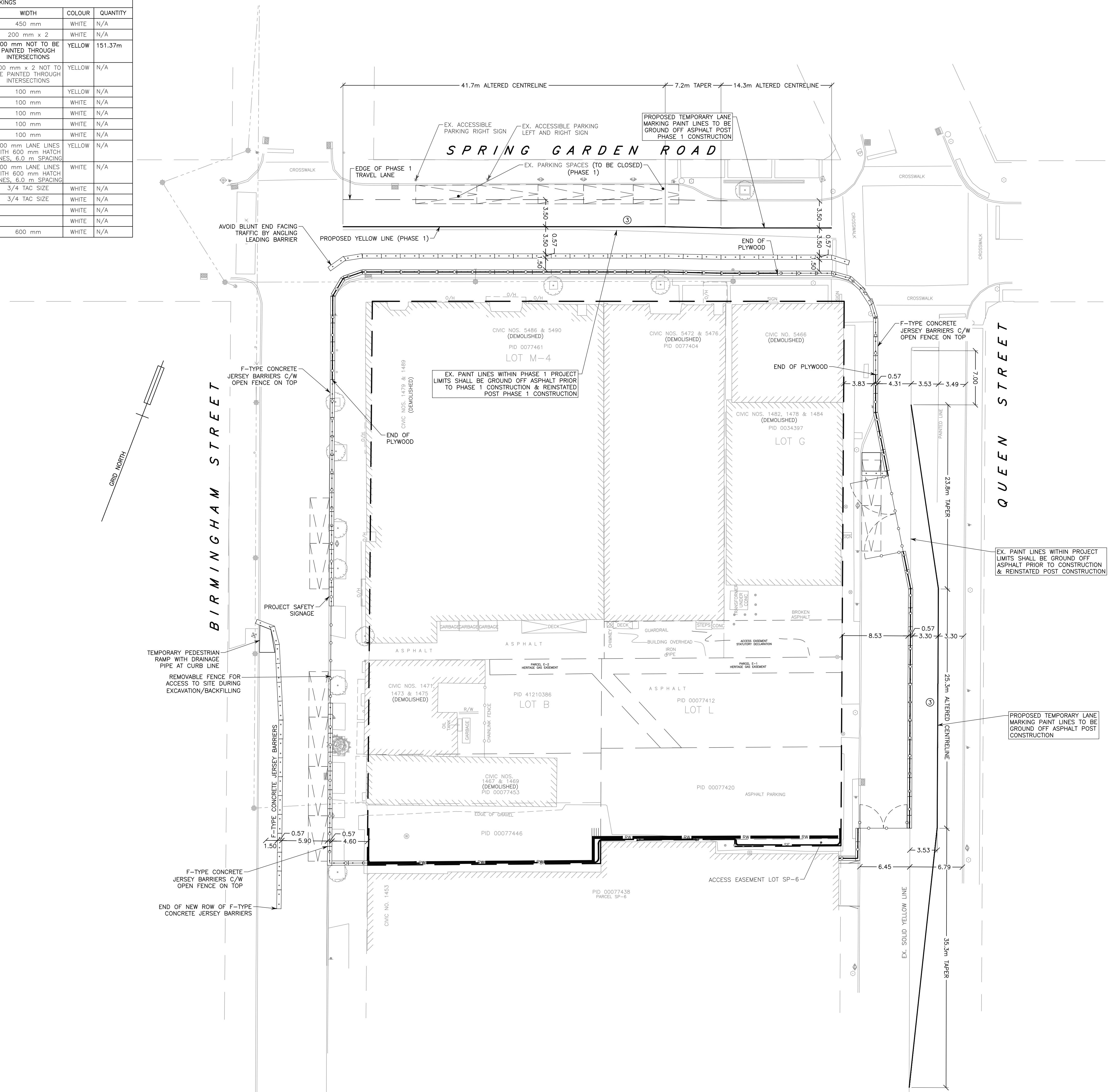
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## **Appendix Q – Line Painting Plan**

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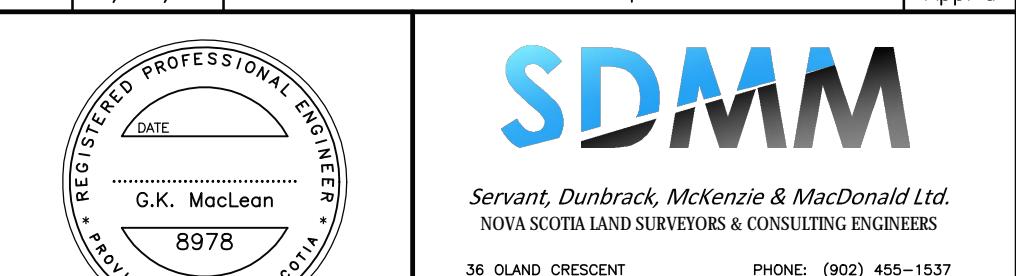
PAVEMENT MARKINGS					
IDENTIFICATION	TYPE	WIDTH	COLOUR	QUANTITY	
①	STOP BAR	200 mm x 2	WHITE	N/A	
②	CROSSWALK LINE	100 mm NOT TO BE PAINTED THROUGH INTERSECTIONS	WHITE	N/A	
③	SINGLE CENTRELINE	100 mm x 2 NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	151.37m	
④	DOUBLE CENTRELINE	100 mm x 2 NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	N/A	
⑤	SOLID C WITH BROKEN 3x6 LINE	100 mm	YELLOW	N/A	
⑥	LANE & BIKE LINES	100 mm	WHITE	N/A	
⑦	BROKEN LINE 3x3	100 mm	WHITE	N/A	
⑧	BROKEN LINE 3x6	100 mm	WHITE	N/A	
⑨	BIKE LANE DASHED LINE 1.5x1.5	100 mm	WHITE	N/A	
⑩	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	YELLOW	N/A	
⑪	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	WHITE	N/A	
⑫	ARROW	3/4 TAC SIZE	WHITE	N/A	
⑬	RESERVED LANE SYMBOL	3/4 TAC SIZE	WHITE	N/A	
⑭	BIKE SYMBOL		WHITE	N/A	
⑮	SHARED USE LANE SYMBOL		WHITE	N/A	
⑯	ZERBA CROSSWALK	600 mm	WHITE	N/A	



LEGEND	
EXISTING	PROPOSED
25.0	CONTOUR LINE
◎ / ◎ BF	CURB STOP/GATE/BUTTERFLY VALVE
◆	FIRE HYDRANT
□	CONCRETE THRUST BLOCK
△	SIAMESE CONNECTION
■ / □ / □	CATCH BASIN/PIT
—	CULVERT
○ / RD	ROCK LINING/DAM
○ / RW	ROCK WALL/RETAINING WALL
>> / O	POWER POLE & ANCHOR/LIGHT STANDARD
○ / SAN	TREE
○ / STM	STREET SIGN/PARKING METER
—	ELEVATION/GRADE
x 131.82	[125.00] x [+/-] 125.00
■	TEST PIT
— / —	DRAINAGE/SWALE FLOW DIRECTION
W	WATER MAIN/SERVICE
● SAN	SANITARY MANHOLE & PIPE
○ STM	STORM MANHOLE & PIPE
—	COMBINED PIPE
—	GAS LINE
FL	100YR. FLOOD LIMIT
—	GUARD RAIL
—	UNDERGROUND CONDUIT
—	OVERHEAD WIRES
—	PROPERTY LINE/BOUNDARY
—	FENCE
—	BUILDING
—	TOP OF SLOPE
—	TOE OF SLOPE
—	TREELINE
—	LIMITS OF DISTURBANCE
—	TACTILE PEDESTRIAN PLATES
—	PROJECT SAFETY SIGNAGE
—	ORANGE SAWHORSE BARRICADE

NOTES	
1. THIS PLAN IS IN METRIC.	
TRAFFIC AUTHORITY DATE FOR THE APPROVAL OF ALTERED CENTRELINE ONLY, ALL OTHER ASPECTS OF THIS TEMPORARY TRAFFIC CONTROL PLAN MUST FOLLOW THE TEMPORARY CONTROL MANUAL, LATEST EDITION.	

4	21/03/05	REVISED PROTECTED SIDEWALK
3	21/02/03	REVISED AS PER CLIENT COMMENTS
2	20/12/14	ADDED PROTECTED SIDEWALKS & TEMP. CROSSWALK
1	20/12/02	REVISED AS PER CLIENT COMMENTS
0	20/12/01	ISSUED FOR REVIEW
No.	YY/MM/DD	Revision Description App'd



**SDMM**

Servant, Dunbrack, McKenzie & MacDonald Ltd.  
NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS

36 OLAND CREST  
BAVARS LAKE BUSINESS PARK  
HALIFAX, NS B3S 1C8  
PHONE: (902) 455-1537  
FAX: (902) 455-8479  
WEB: www.sdmm.ca

**THE MILLS DEVELOPMENT**  
5486 SPRING GARDEN ROAD  
HALIFAX, NOVA SCOTIA

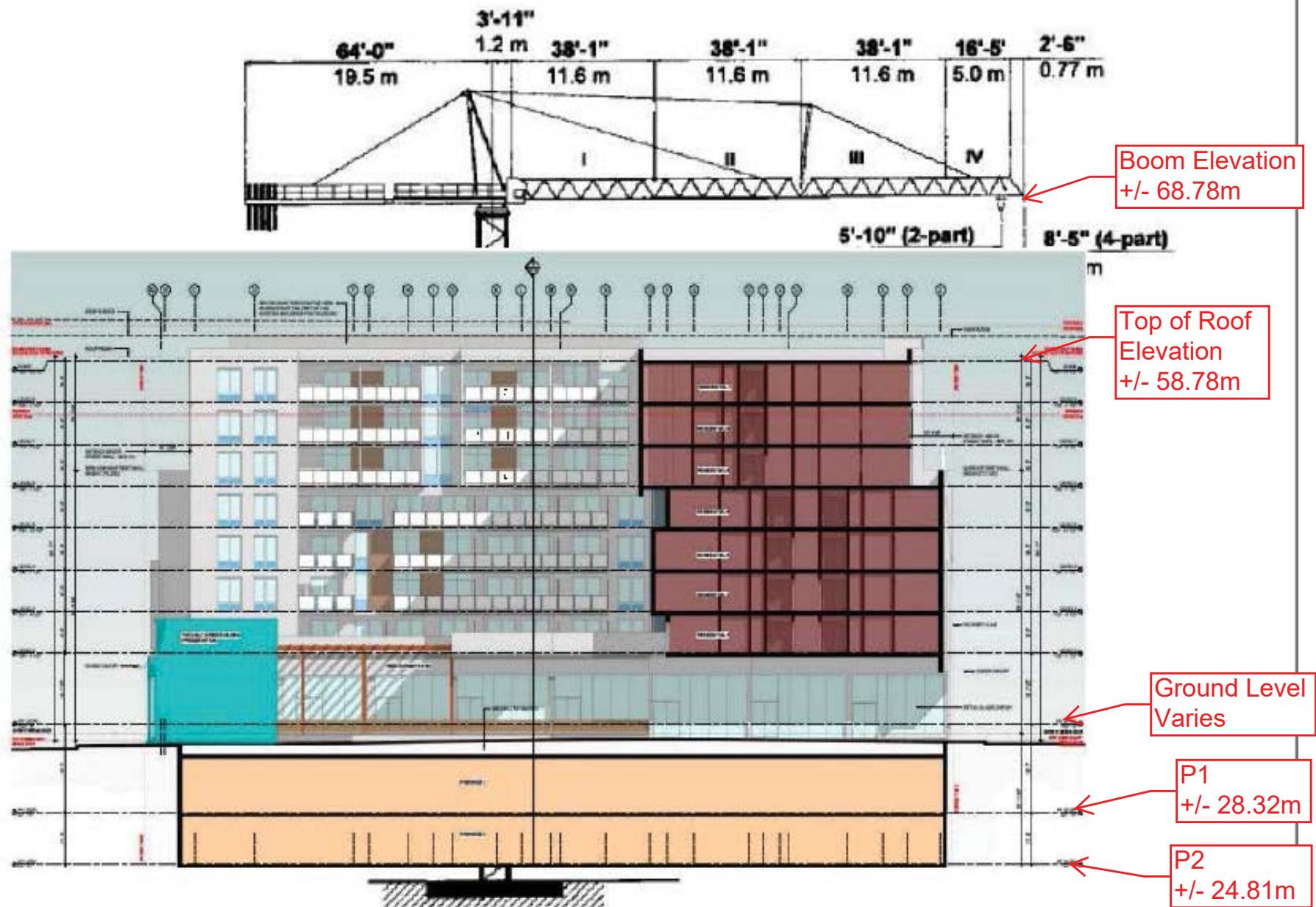
#### LINE PAINTING SCHEMATIC

Date DECEMBER 1, 2020	Drawn C. PORTER	Project No. FILE NO. 1-1-130 (35587)
Scale 1:250	Engineer G. MACLEAN	Plan No. 16-2412-4
Reference ---	Approved G. MACLEAN	Drawing Name
Surveyed SDMM	Sheet	R3
0m	5 10 15 20 25m	

## **Appendix R – Crane Information**

---



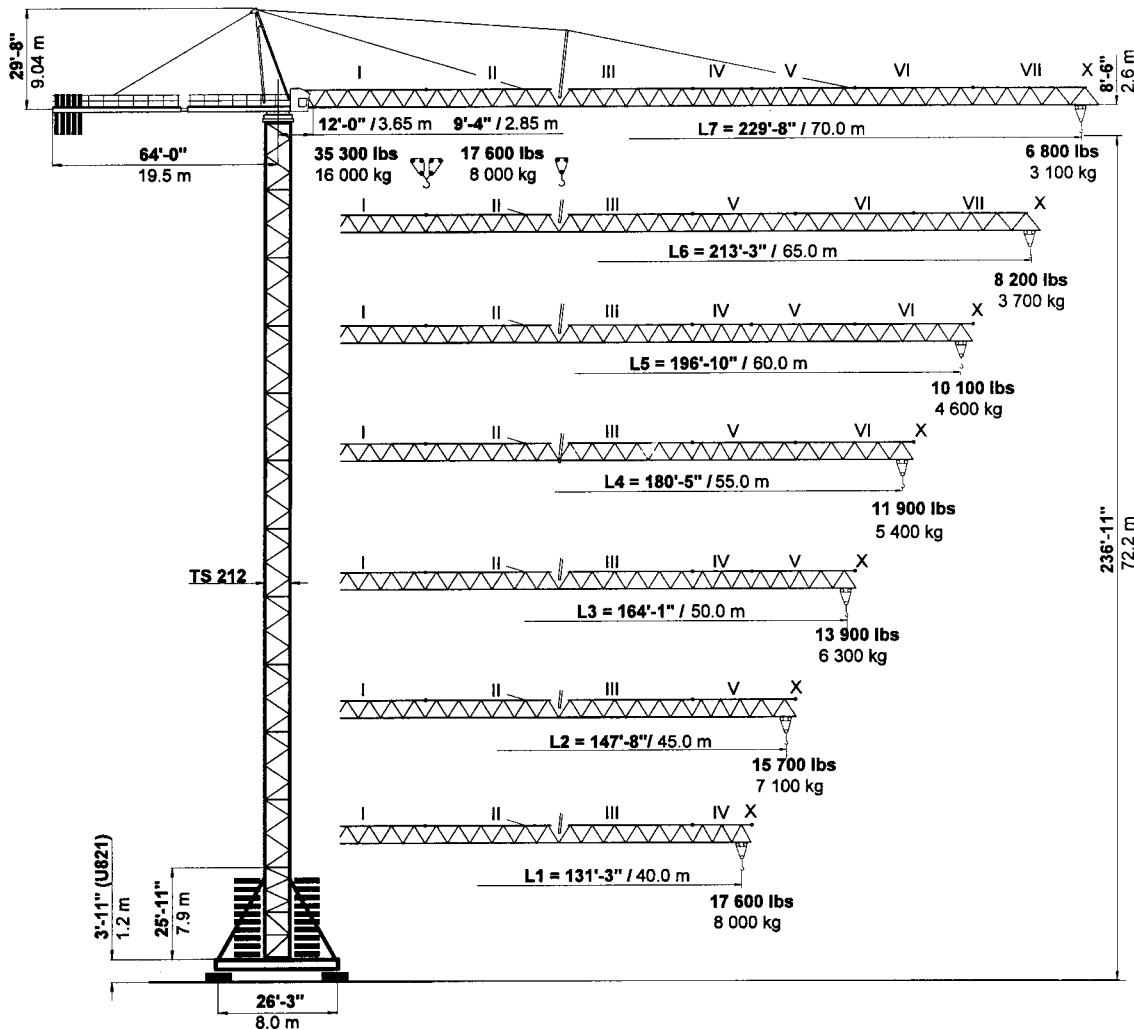




## PEINER SK 315

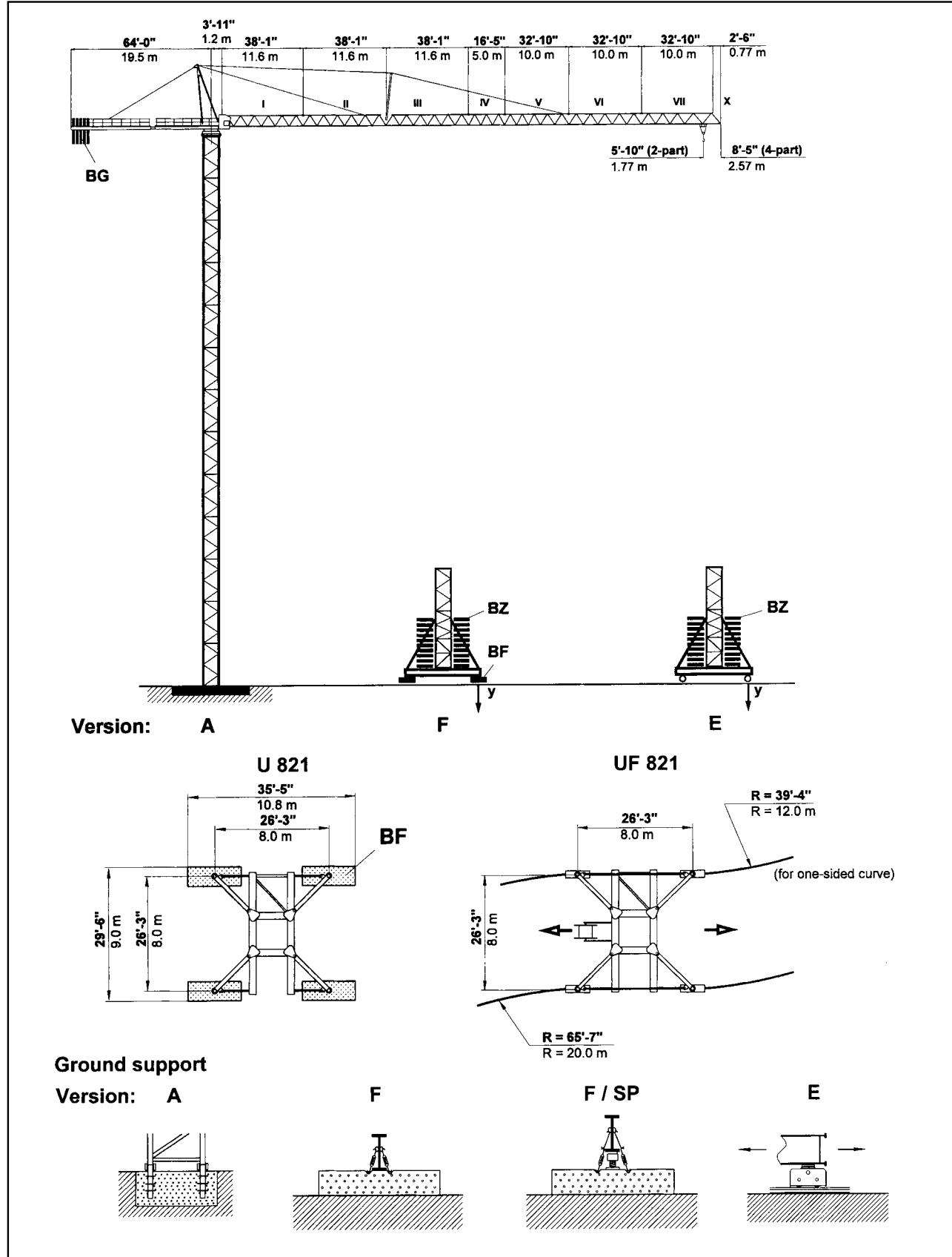
**Hammerhead Tower Crane  
17,600-35,300 lbs. (8-16 mt)  
Lifting Capacity**

### SPECIFICATIONS

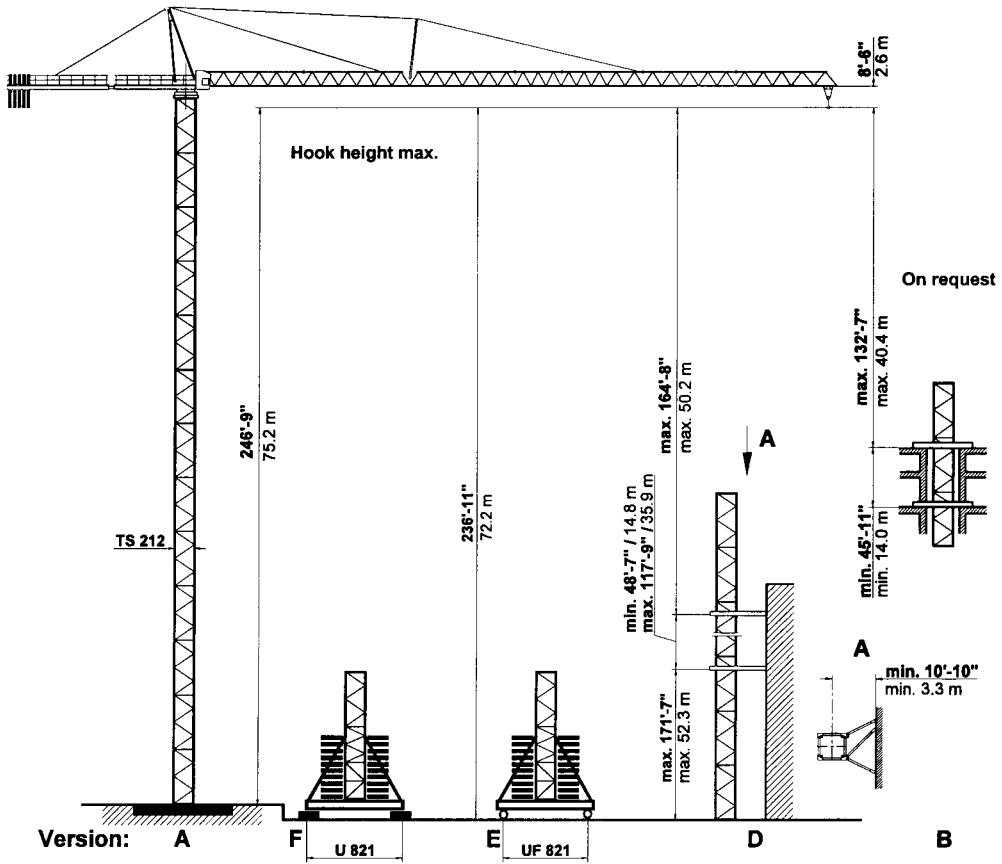


simple, available and  
cost effective™

Machines shown may have optional equipment.

**PEINER SK 315****Combinations of tower section, hook heights, forces acting per corner, base ballast**

## PEINER SK 315 Tower TS 211



TS 212	Version A	Version F						Version E					
		Tower	HH	Tower	HH	BZ + BF	in service	y	out of service	kips / t	kips / kN	y	out of service
TS 212.1		TS 212.1		TSV 212		BZ + BF	in service	y	out of service				
13 x TS 212.1	246'-9"** 75.2"												
12 x TS 212.1	227'-4"** 69.3"	1 x TSV 212	236'-11"** 72.2"	212.0	204	279	198.0			212	282		
11 x TS 212.1	208'-0"** 63.4"	11 x TS 212.1		217'-6"** 66.3"	168.0	186	240	154.0		192	242		
10 x TS 212.1	188'-8"** 57.5"	1 x TSV 212	198'-2"** 60.4	146.0	173	203	132.0			179	204		
9 x TS 212.1	169'4"** 51.6	9 x TS 212.1		178'-10"** 54.5	124.0	161	169	88.0		161	169		
8 x TS 212.1	149'-11"** 45.7	7 x TS 212.1	159'-5"** 48.6	101.0	149	145	88.0			154	170		
7 x TS 212.1	130'-7"** 39.8	6 x TS 212.1	140'-1"** 42.7	101.0	142	128	66.0			141	124		
6 x TS 212.1	111'-3"** 33.9	5 x TS 212.1	120'-9"** 36.8	101.0	136	112	66.0			135	108		
5 x TS 212.1	91'-10"** 28.0	4 x TS 212.1	101'-5"** 30.9	101.0	131	98	66.0			129	94		
4 x TS 212.1	72'-6"** 22.1	3 x TS 212.1	82'-0"** 25.0	101.0	126	85	66.0			123	81		
3 x TS 212.1	53'-2"** 16.2	1 x TSV 212	62'-8"** 19.1	101.0	120	80	66.0			118	75		
2 x TS 212.1	33'-9"** 10.3	2 x TS 212.1	43'-4"** 13.2	101.0	116	80	66.0			112	75		
<b>Foundation</b> 25'-7" x 25'-7" x 5'-7" 7.8 x 7.8 x 1.7 m		<b>Stationary base</b> U 821						<b>Travelling base</b> UF 821					
<b>Anchor stools</b> 4 x FF 212		<b>BF</b> 4 x 8.82 kips		<b>BZ</b> block 11.02 kips		<b>Bogie</b> Curve F 500							

If TSK 212 section is used the hook height is increased by 6'-7" (2 m).

\* Lower climbing section after erection.

**TS 212.1 = 19'-4 1/4" / 5.9 m**

**TSV 212 = 25'-11" / 7.9 m**

**TSK 212 = 6'-7" / 2.0 m**

## PEINER SK 315 Radius and Capacity

Jib ft m	Max. capacity max. 17,600 lbs 8.0 t	Radius - ft./m Capacity - lbs./mt																		
		2-Part Line  max. 17,600 lbs max. 8.0 t																		
L7 229'-8"	9'-4" - 96'-9"	17600	17600	17400	14800	12800	11900	11200	10600	10100	9500	9000	8600	8200	7700	7500	7100	6800		
70.0	2.85 - 29.5 m	8.0	8.0	7.9	6.7	5.8	5.4	5.1	4.8	4.6	4.3	4.1	3.9	3.7	3.5	3.4	3.2	3.1		
L6 213'-3"	9'-4" - 105'-0"	17600	17600	17600	16100	13900	13000	12300	11500	11000	10400	9900	9300	8800	8600	8200				
65.0	2.85 - 32.0 m	8.0	8.0	8.0	7.3	6.3	5.9	5.6	5.2	5.0	4.7	4.5	4.2	4.0	3.9	3.7				
L5 196'-10"	9'-4" - 117'-9"	17600	17600	17600	17600	15700	14600	13900	13000	12300	11700	11200	10600	10100						
60.0	2.85 - 35.9 m	8.0	8.0	8.0	8.0	7.1	6.6	6.3	5.9	5.6	5.3	5.1	4.8	4.6						
L4 180'-5"	9'-4" - 124'-8"	17600	17600	17600	17600	16800	15400	14800	13900	13200	12300	11900								
55.0	2.85 - 38.0 m	8.0	8.0	8.0	8.0	7.6	7.0	6.7	6.3	6.0	5.6	5.4								
L3 164'-1"	9'-4" - 130'-11"	17600	17600	17600	17600	17600	16300	15400	14600	13900										
50.0	2.85 - 39.9 m	8.0	8.0	8.0	8.0	7.4	7.0	6.6	6.3											
L2 147'-8"	9'-4" - 131'-11"	17600	17600	17600	17600	17600	16500	15700												
45.0	2.85 - 40.2 m	8.0	8.0	8.0	8.0	7.5	7.1													
L1 131'-3"	9'-4" - 131'-3"	17600	17600	17600	17600	17600														
40.0	2.85 - 40.0 m	8.0	8.0	8.0	8.0	8.0														
ft m		35,300 lbs 16.0 t																		
		4-Part Line  max. 35,300 lbs max. 16.0 t																		
L7 227'-0"	12'-0" - 48'-7"	21800	19600	16100	13200	11200	10400	9700	9000	8600	7900	7500	7100	6600	6200	6000	5500	5300		
69.2	3.65 - 14.8 m	9.9	8.9	7.3	6.0	5.1	4.7	4.4	4.1	3.9	3.6	3.4	3.2	3.0	2.8	2.7	2.5	2.4		
L6 210'-8"	12'-0" - 52'-2"	23800	21600	17400	14600	12600	11500	10800	9900	9500	8800	8400	7700	7500	6800	6600				
64.2	3.65 - 15.9 m	10.8	9.8	7.9	6.6	5.7	5.2	4.9	4.5	4.3	4.0	3.8	3.5	3.4	3.1	3.0				
L5 194'-3"	12'-0" - 57'-9"	26900	24500	19800	16800	14300	13000	12300	11500	10800	10100	9700	9000	8600						
59.2	3.65 - 17.6 m	12.2	11.1	9.0	7.6	6.5	5.9	5.6	5.2	4.9	4.6	4.4	4.1	3.9						
L4 177'-10"	12'-0" - 61'-0"	28700	26000	21200	17900	15200	14100	13200	12300	11700	10800	10400								
54.2	3.65 - 18.6 m	13.0	11.8	9.6	8.1	6.9	6.4	6.0	5.6	5.3	4.9	4.7								
L3 161'-5"	12'-0" - 63'-8"	30200	27300	22300	18700	16100	14800	14100	12800	12300										
49.2	3.65 - 19.4 m	13.7	12.4	10.1	8.5	7.3	6.7	6.4	5.8	5.6										
L2 145'-0"	12'-0" - 64'-0"	30400	27600	22500	19000	16300	15000	14100												
44.2	3.65 - 19.5 m	13.8	12.5	10.2	8.6	7.4	6.8	6.4												
L1 128'-7"	12'-0" - 66'-3"	31700	28700	23600	19800	17000														
39.2	3.65 - 20.2 m	14.4	13.0	10.7	9.0	7.7														

### Speeds

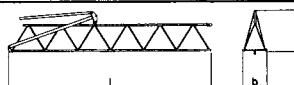
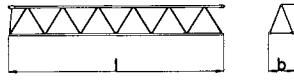
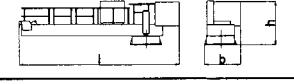
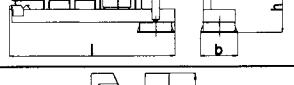
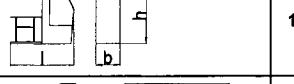
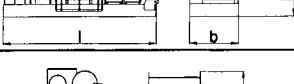
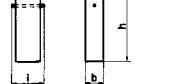
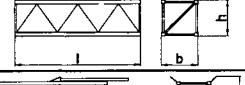
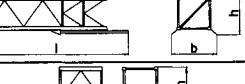
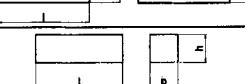
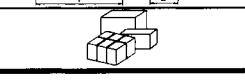
FU 8-160/4		v = 0 → ~290 fpm (88 m / min.)	10.2 HP 7.5 kW
SR 10-190/3		v = 0 → ~96 fpm (30 m / min.)	2 x 16.3 HP 2 x 12.0 kW
K WB 120/4		v = 0 → 0.9 rpm (min⁻¹)	2 x 11.4 HP 2 x 8.4 kW
HK max. = 705' (215 m)			480 V / 60 Hz / 3 ph
Type SR WB 66-80/4F		4-Part Line	Total motor output ~140 HP without SR 10-190/3 ~105 kW
[108 HP] [79 kW]		444 fpm 134 m/min	222 fpm 67 m/min
		276 fpm 84 m/min	138 fpm 42 m/min
		180 fpm 54 m/min	90 fpm 27 m/min
		108 fpm 34 m/min	54 fpm 17 m/min
		5 500 lbs 2 500 kg	11 000 lbs 5 000 kg
		9 300 lbs 4 200 kg	18 600 lbs 8 400 kg
		13 900 lbs 6 300 kg	27 800 lbs 12 600 kg
		17 600 lbs 8 000 kg	35 300 lbs 16 000 kg
		Connected power 170 kVA	

### Counterweight

Jib	L 1	L 2	L 3	L 4	L 5	L 6	L 7
Counterweight	BG	30 000 lbs 13 600 kg	32 200 lbs 14 600 kg	36 600 lbs 16 600 kg	39 150 lbs 17 750 kg	43 550 lbs 19 750 kg	41 350 lbs 18 750 kg
	[lbs]	3 x 6 950 1 x 9 150	2 x 6 950 2 x 9 150	4 x 9 150	3 x 6 950 2 x 9 150	1 x 6 950 4 x 9 150	2 x 6 950 3 x 9 150
	[t]	3 x 3.15 1 x 4.15	2 x 3.15 2 x 4.15	4 x 4.15	3 x 3.15 2 x 4.15	1 x 3.15 4 x 4.15	2 x 3.15 3 x 4.15

**PEINER SK 315 Dimensions and transport weights**

See operating manual for mounting weights

	Designation		Dimensions (ft / m)			Weight lbs / t	Volume ft <sup>3</sup> / m <sup>3</sup>	
			I	b	h			
1	Jib Section III		39.01 11.94	4.99 1.52	7.09 2.16	4 200 1.92	1 386 39.2	
2	Jib Section I		39.01	4.99	5.84	3 790	1 137	
	Section II		11.89	1.52	1.78	1.72	32.2	
	Section IV		38.65	4.99	6.17	4 320	1 190	
	Section V		11.78 19.19	1.52 4.99	1.88 5.41	1.96	33.7 519	
	Section VI		5.85 35.34	1.52 4.99	1.65 5.45	0.80	14.7 961	
	Section VII		10.77 36.03	1.52 4.99	1.66 5.48	1.40	27.2 985	
	Jib tip X		10.98 33.33	1.52 4.99	1.67 5.32	1.12	27.9 853	
3	Turntable with slewing ring support and cabin		36.35 11.08	7.64 2.33	7.81 2.38	25 350 11.50	2 169 61.4	
	Turntable with slewing ring support		31.99 9.75	7.64 2.33	7.81 2.38	24 030 10.90	1 911 54.1	
	Cabin with support and railing		10.17 3.10	4.92 1.50	7.25 2.21	1 320 0.60	364 10.3	
4	Counter jib with hoist winch		38.13 11.62	5.91 1.80	6.00 1.83	14 550 6.60	1 353 38.3	
	Hoist winch	66 WB		7.51 2.29	5.45 1.66	3.28 1.00	5 400 2.45	134 8.4
5	Counterweight	BG		3.94 1.20 3.94 1.20	1.64 0.50 1.64 0.50	9.32 2.84 12.11 3.69	6 950 3.15 9 150 4.15	60 1.4 78 1.7
	6 Tower section	TS 212.1		19.52 5.95	7.78 2.37	8.01 2.45	9 130 4.14	1 216 34.4
		TSV 212 with struts		31.17 9.50	9.84 3.00	10.00 3.05	20 330 9.22	3 067 86.9
		TSK 212		6.63 2.02	7.87 2.40	9.84 3.00	6 170 2.80	513 14.5
7	Travelling base, folded	UF 821		41.01 12.5	9.74 2.97	7.05 2.15	35 050 15.90	2 816 79.8
8	Stationary base, folded	U 821		34.55 10.53	9.06 2.76	2.79 0.85	17 130 7.77	873 24.7
9	Central ballast block	BZ		11.48 3.50	4.92 1.50	2.20 0.67	11 020 5.00	124 3.5
10	Foundation pad	BF		9.19 2.80	3.28 1.00	1.87 0.57	8 820 4.00	57 1.6
11	Accessories						4 800 2.17	

For more information, product demonstration, or details on lease and rental plans, please contact your local Terex Towers Distributor.

**Bigge Crane and Rigging Co.**

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Fax: (510) 639-4053  
Email: towers@bigge.com  
Web site: www.biggetowercrane.com

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty applicable to the particular product and sale. We make no other warranty, expressed or implied.

**TEREX TOWERS**

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## Appendix S – Pedestrian Wayfinding Signage Specifications

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Pedestrian Detour Way-Finding Signage Specifications:

Signage shall include.

- Information as to the duration of the pedestrian detour route will be in place
- Restriction (beginning and end dates)
- Project contract information (name and number) for questions and complaints
- Way-finding Map guidance depicting detour route including street names, land marks, building names and or addresses for reference
- High visibility contrasting colours (dark letters on white background)
- Appropriate font types (mix of upper and lower-case lettering)
- Appropriate font sizes such that the signage is readable to the general public

Signage shall.

- Be constructed of weatherproof material (corrugated plastic)
- Size of signage will be letter size (11in x 17in) or smaller
- Size and shape shall not impede traffic of pedestrian (accessibility must be maintained)
- Be mounted no higher than 6.5ft above the ground.
- Be mounted along pedestrian routes to guide pedestrians around the construction site detours.
- Be positioned at each location where pedestrians must cross a street, at half way points along the block/route and any point along the route where an alternative pedestrian path may be taken.
- Locate routes to local businesses that are within close proximity to the construction site.
- Provide advanced warning of upcoming detour or sidewalk closures.
- Signage may incorporate plastic grommets positioned around the perimeter of the signage to ensure a secure signage installation
- Signage may be installed/anchored to fencing, utility poles, light standard, road signage, using plastic zip-ties
- Signage must not damage municipal or private property or infrastructure.
- Signage must not be a hazard or dangerous to vehicles or pedestrians as per HRM.
- Signage must not be left and become unsightly a per HRM.
- Signage will be positioned as per this document or as directed by HRM.
- **Signage shall be placed on site 10days prior to the start of the noted construction activity to ensure the passing public has had adequate time to review, adjust their travel patterns, usage of streets and or can be considered ‘informed’.**