

North Apartments  
6431 North Street

Excavation and Building  
Construction

Prepared by Geoff MacLean, P.Eng.

Job No. 37333

CONSTRUCTION MANAGEMENT PLAN

| REVISION # | DATE     | DESCRIPTION                          |
|------------|----------|--------------------------------------|
| 5          | DEC 2024 | REVISED AS PER CLIENT COMMENTS       |
| 4          | SEP 2024 | REVISED AS PER HRM COMMENTS          |
| 3          | AUG 2024 | REVISED AS PER HRM COMMENTS          |
| 2          | MAY 2024 | REVISED AS PER HRM & CLIENT COMMENTS |
| 1          | FEB 2024 | REVISED AS PER HRM COMMENTS          |
| 0          | OCT 2022 | ISSUED FOR REVIEW                    |



36 Oland Crescent  
Bayers Lake Business Park  
Halifax, Nova Scotia B3S 1C6  
[www.sdmm.ca](http://www.sdmm.ca)

t: 902-455-1537  
f: 902-455-8479  
c: 902-789-6374  
e: [gmaclean@sdmm.ca](mailto:gmaclean@sdmm.ca)

## Revisions Summary

Revision 1 – Sections; 1.1, 1.2, 2.1, 2.2, 2.3, 5, 5.1, 7.6, 7.7, 8.1 & 8.3; Appendices A, B, C, D, G, L, N & P

Revision 2 – Sections; 1.2, 2.1, 2.2 & 8.3; Appendices A, G, J, & P

Revision 3 – Sections; 2.3, 7.1, 7.2 & 7.6; Appendices A & P

Revision 4 – Sections; 2.1 & 2.2; Appendix B

Revision 5 – Sections; 1.2, 2.1, 2.2, 4.1, 5 & 8.3; Appendices A, B & P

## Table of Contents

---

|   |   |
|---|---|
| Section 1: Introduction .....                                   | 1 |
| 1.1: Project Description and Objectives .....                   | 1 |
| 1.2: Project Contact Information .....                          | 2 |
| Section 2: Project Schedule and Logistics .....                 | 2 |
| 2.1: Schedule .....   | 2 |
| 2.2: Key Dates .....  | 2 |
| 2.3: Hours of Work.....   | 3 |
| Section 3 – Relevant Regulations & Guidelines .....             | 3 |
| 3.1: Occupational Health & Safety Regulations.....              | 3 |
| 3.2: Municipal Regulations & Guidelines.....                    | 3 |
| Section 4: Vehicle Management.....                              | 4 |
| 4.1: Vehicular Traffic Control.....                             | 4 |
| 4.2: Haul Route and Staging Areas .....                         | 4 |
| 4.3: Vehicular Traffic Notifications .....                      | 4 |
| 4.4: Emergency Vehicles.....                                    | 4 |
| 4.5: Parking .....  | 4 |
| 4.6: Bus Stops.....   | 4 |
| 4.7: Hazard Assessment.....                                     | 4 |
| Section 5: Pedestrian Management .....                          | 5 |
| 5.1: Pedestrian Protection .....                                | 5 |
| 5.2: Pedestrian Safety.....                                     | 5 |
| 5.3: Pedestrian Traffic Notifications .....                     | 5 |
| 5.4: Visually Impaired Persons.....                             | 5 |
| 5.5: Accessibility .....  | 5 |
| 5.6: Hazard Assessment.....                                     | 5 |
| 5.7: Pedestrian Management Plans Rendering (PMPR) Signage ..... | 6 |
| 5.8: Pedestrian Detour Wayfinding Signage .....                 | 6 |
| Section 6: Encroachments & Disruptions .....                    | 6 |
| 6.1: Demolition .....   | 6 |

|   |    |
|---|----|
| 6.2: Site Excavation.....   | 6  |
| 6.3: Site Services Connection.....  | 6  |
| 6.4: Construction Management Plan Element Inspection and Maintenance..... | 7  |
| 6.5: Changes to the Construction Management Plan.....                     | 7  |
| Section 7: Environmental Factors.....                                     | 7  |
| 7.1: Damage to HRM Infrastructure .....                                   | 7  |
| 7.2: Protection of Trees .....  | 7  |
| 7.3: Line Painting and Temporary Crosswalks .....                         | 7  |
| 7.4: Street and Right-of-Way Cleaning .....                               | 8  |
| 7.5: Protection from Inclement Weather .....                              | 8  |
| 7.6: Storm Water Management.....  | 8  |
| 7.7: Noise, Dust and Emission Control.....                                | 8  |
| 7.8: Rodent Control .....   | 8  |
| Section 8: Site Protection & Hoarding.....                                | 9  |
| 8.1: Barriers & Fences.....   | 9  |
| 8.2: Snow removal .....   | 10 |
| 8.3: Gate Access and Egress.....  | 10 |
| 8.4: Hoarding Aesthetics.....   | 10 |
| 8.5: Sight Lines.....   | 10 |
| 8.6: Project Information and Contacts .....                               | 10 |
| Section 9: Lifting, Hoisting, and Crane Operations.....                   | 10 |
| 9.1: Crane Use Overview .....   | 10 |
| 9.2: Transport Canada and Nav Canada Regulations.....                     | 11 |
| 9.3: Aerodromes .....   | 11 |
| Section 10: On-Site Safety and Security .....                             | 11 |
| 10.1: Site Safety and Security Overview .....                             | 11 |
| 10.2: Material Handling: Loading, Unloading, Delivery and Storage.....    | 11 |
| 10.3: Emergency Access & Egress.....                                      | 12 |
| 10.4: Security Site Lighting .....  | 12 |
| 10.5: Smoking Areas .....   | 12 |
| 10.6: Fire Suppression Systems .....                                      | 12 |
| Section 11: Pre-Construction Consultation & Meeting .....                 | 12 |



11.1: Pre-CMP Community Consultation.....12

11.2: Project Information and Contacts .....12

11.3: Preconstruction Meeting.....12

11.4: Construction Notification .....13

Section 12: Summary.....13

Appendix A – Encroachment Plan..... A

Appendix B – Traffic Control Plans TCP .....B

Appendix C – Haul Route Plan .....C

Appendix D – Pedestrian Management Plan (PMP) ..... D

Appendix E – Barrier, Fence & Gates Information.....E

Appendix F – Hoarding Information ..... F

Appendix G – Project Information Board ..... G

Appendix H – Project Safety Signage ..... H

Appendix I – Project Signage Specifications .....I

Appendix J – Sample Traffic Notification Letter ..... J

Appendix K – Vehicular and Pedestrian Hazard Assessment .....K

Appendix L – Community Consultation Records ..... L

Appendix M – HRM Tree Detail ..... M

Appendix N – Rodent Control Plan ..... N

Appendix O – CMP’s TCP & PMP Inspection Records..... O

Appendix P – Concrete Delivery Schematic.....P

Appendix Q – Crane Information..... Q



Prepared by  
 G.K. MacLean, P. Eng.  
 In consultation with the Developer, contractor,  
 traffic control company and HRM.

## Section 1: Introduction

---

### 1.1: Project Description and Objectives

The developer is planning an apartment building development located on North Street in Halifax. In preparation for this development, the existing buildings at civic 6421-6431 North Street were previously demolished and the lots were consolidated to form one land parcel (PID: 40582363). The planned development will include 73 residential units within 7-storey building with penthouse and 2 levels of underground parking accessed from North Street. This CMP has been prepared to address excavation, services and building construction.

Where the new residential building is planned to have 2 levels of underground parking, deep excavations (+/- 20ft) fronting the HRM Right of Way (ROW) are required for the project. Given the building is set at the ROW, for public safety during excavation and construction activities, the project compound is planned in three phases. Phase one, will set fencing at the street line allowing for initial excavation at the back and middle of the site; this will leave the sidewalk open on North Street. Phases two and three will close the sidewalk and hoard off a portion of the street lane directly in front of the project for a truck layby /material laydown area this will allow for the remaining excavation fronting the street line and building construction. The phase 2 and 3 encroachments will narrow the westbound travel lane directly in front of the project and close the public sidewalk to pedestrians redirecting them around the encroachment area while maintaining two-way traffic on North Street. Only during service work do we anticipate short term temporary lane drops. It is anticipated that the crane assembly and disassembly will reside within the encroachment or on private property.

The project borders a parking lot for the adjacent North Street Gospel Hall to the east, residential properties along its northern and western property lines. To the south across North Street is HRM's Foster Park. Neighbouring properties will remain undisturbed throughout all construction phases and all neighbours will be notified and updated on construction ahead of time.

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               | ACK Properties Limited      | Leo Bitar      | 203 Club Road, Hatchet Lake, NS, B3T 1R2                  | (902) 446-3955                                     |
| Construction Manager    | RoMa Developments Inc       | Hayden Hopgood | 12 Ella Lane, #200 Bedford, NS B4B 2J6                    | (902) 300-2602<br><b>24 Hour Emergency Contact</b> |
| Site Contractor         | Allterrain Contracting Inc. | Kirby Densmore | 700 Windgate Drive, Beaverbank, NS B4G 0A6                | (902) 478-1170                                     |
| Traffic Control Company | Frontline Traffic Services  | Tyler Hayman   | 6 Belmont Avenue, P.O. Box 89 Eastern Passage, NS B3G 1M7 | (902) 818-5548                                     |
| Rodent Control Company  | Rentokil Pest Control       | Main Office    | 51 Duke Street, Bedford, NS B4`A2Z2                       | (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      | May 1, 2024  | - | July 31, 2024 | 3 months    |
| Demolition                  | n/a          | - | n/a           | -           |
| Site Excavation             | May 15, 2024 | - | Sep 15, 2024  | 4 Months    |
| Footings and Foundations    | Dec 15, 2024 | - | Feb 28, 2025  | 2.5 Months  |
| Superstructure              | Jan 2, 2025  | - | Feb 28, 2026  | 14 Months   |
| Service Abandonments        | June 2025    | - | June 2025     | 1 weekend   |
| Service installs            | June 2025    | - | June 2025     | 1 weekend   |
| HRM Right of Way Flat Works | Oct 1, 2025  | - | Oct 31, 2025  | 1 month     |
| Site Flat Works             | Oct 1, 2025  | - | Nov 30, 2025  | 2 months    |

### 2.2: Key Dates

- Install Phase 1 setup safety fencing May 15, 2024
- Install Phase 2 encroachment December 15, 2024
  - Sidewalk closure (North Street)
  - Street Lane encroachment (North Street)
- Install Phase 3 encroachment January 2, 2025
  - Sidewalk closure (North Street)
  - Street lane encroachment (North Street)
- Finish encroachment February 28, 2026
- Duration of encroachment 16 months
- Temporary lane/road closures:
  - North Street service abandonments June 7-8, 2025
  - North Street Water service install June 7-8, 2025
  - North Street Hydrant service install June 7-8, 2025

The encroachment areas are shown in the appendix for reference.

### 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. – 8:00 p.m.
- Saturdays: 8:00 a.m. – 7:00 p.m.
- Sundays & Statutory Holidays: 9:00 a.m. – 7:00 p.m.
- Servicing Work: Noted Above

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. Note that construction noise exemptions may be granted where construction noise is planned to take place during prohibited hours of the N-200 By-law. The developer shall apply for this separately under the Construction Noise Exemption process.

## Section 3 – Relevant Regulations & Guidelines

---

### 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 (MUTCDC); 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;
- l) HRM TCM Supplement;
- m) G-200 Grade Alteration and Stormwater management;
- n) Admin Order 2018-005-ADM regarding encroachments; and
- o) Admin Order 2020-010-OP regarding stormwater management standards for development activities.

## Section 4: Vehicle Management

---

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

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

We are proposing encroachments that will narrow the westbound street lane fronting the project site. Throughout all phases of construction two-way vehicular traffic will be maintained, westbound vehicle traffic will be narrowed down to a minimum 3.5m wide travel lane. Only during service work do we anticipate short term temporary lane closures. It is anticipated that tower crane assembly and disassembly will be stationed within the encroachment area or on private property. Please refer to the appendices for required encroachment plan and 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 all construction phases vehicles will enter and exit the site at the gate location(s) which will be clearly marked for function. During construction activities concrete and material deliveries shall be contained within private property and the encroachment. We anticipate these deliveries entering the east gate and exiting the west gate on North Street with traffic flow. Refer to appendix for concrete delivery schematic.

### 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

Un-metered parking is not permitted directly in front or in the vicinity of the project site. On street parking will not be affected by this project. It is noted that passenger vehicles are not permitted to park within any encroachment areas. To minimize parking requirements in adjacent neighbourhoods, site workers will utilize private property and workers will be encouraged to carpool or rely on public transit.

### 4.6: Bus Stops

Bus service travels along North Street with a bus stop near the Oxford intersection. Bus service should not be affected by this project.

### 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

---

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

During phases two and three of the CMP, the project will close the sidewalk in front of the development. This is to ensure construction and deliveries are kept a safe distance from pedestrians. Pedestrian traffic will be directed to use the sidewalk opposite Chebucto Road and Oxford Street to pass the encroachment area.

### 5.1: Pedestrian Protection

Pedestrians will be protected by physically distancing them from the project. A combination of chain link fencing and F-type concrete jersey barriers with chain link fencing mounted above will delineate the project. Chain link fencing will be covered with opaque covering to block view of the site. Refer to the appendix for examples of the barriers and fencing.

### 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. A sample traffic notification letter can be found in the appendix. HRM must be notified prior to issuing the notification to neighbours.

### 5.4: Visually Impaired Persons

In keeping with 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 around all project related blocked sidewalks.

### 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 is not anticipated for this project.

### 5.8: Pedestrian Detour Wayfinding Signage

The need for pedestrian wayfinding signage directing pedestrians to adjacent businesses is not anticipated for this project.

## Section 6: Encroachments & Disruptions

---

During construction, we are proposing the project encroachment area will incorporate the public sidewalk and portion of the street lane. This will move pedestrians to the opposite side of Chebucto Road being redirected to Oxford and Chebucto Road. This encroachment is to keep the public away from the excavation zone of influence as well as provide additional space for site workers and deliveries within the encroachment area.

This encroachment is planned to be delineated by interlocking F-type concrete barriers complete and chain link fencing with opaque coverings.

Throughout the project, fencing will be positioned to not obstruct vehicle sight lines. In areas adjacent to the site gates open mesh chain link fence on top of the site barriers to not obstruct sight lines.

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 existing buildings were previously demolished. This CMP does not speak to demolition.

### 6.2: Site Excavation

This includes deep excavation and removal of common site material. The development is planned to have two levels of underground parking below street grade. 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. 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). HRM requires that this service work be limited to weekends only to minimize traffic disruptions. 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.

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**

---

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

Existing HRM infrastructure will be reinstated within the encroachment area and/or be completely replaced. This includes reinstatement of the HRM sidewalk, curb and gutter, two (2) HRM street trees and topsoil and sod post construction. 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 developer acknowledges that items may require to be fully replaced rather than repaired. The developer 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 is one HRM street tree within the public right-of-way directly in front of the project site, that needs to be removed to accommodate the new parking garage entry. 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.

In addition, to accommodate new pole and overhead wire installations for pole re-alignment work, one (1) HRM street tree within the Chebucto Road right-of-way directly in front of civic 2596-2598 Kline Street will need to be removed and three (3) HRM street trees along North Street directly in front of Foster Park will need to be trimmed.

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

Temporary line painting such as altered centreline or temporary crosswalk are not anticipated for this project.



#### 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 street as a part of their encroachment the developer is responsible to clear snow from the street side of these 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, the site will be regularly reviewed and cleaned, with loose items secured when not in use.

#### 7.6: Storm Water Management

During construction, nearby catch basins may be fitted with silt bags and/or filter fabric to prevent debris from entering the storm system and maintained until final reinstatement is complete. 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. Excavation dewatering to municipal systems requires a permit, obtained from Halifax Water via [p2@halifaxwater.ca](mailto:p2@halifaxwater.ca), and follow the strict adherence to Halifax Water regulations. The contractor must prevent erosion or siltation of surface runoff from leaving the construction site through the use of erosion and sedimentation controls (See NSECC Erosion and sedimentation control handbook for construction sites). 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 times adhere to the HRM Noise Bylaw (N-200), unless approved under HRM exemption process. No work will take place on the project site outside those hours identified in section 2 of this report, unless HRM grants an exception.

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 and rock faces cleared to form a 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 has engaged a rodent control company, to utilize the established Rodent Control Plan (RCP) to help mitigate rodent movement prior to and during site excavation and building construction. The RCP applies to all project phases with the goal of preventing movement of

rodents off-site. 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 was 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 positioned along existing buildings and fence lines prior to excavation. Bait stations 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

---

### 8.1: Barriers & Fences

Throughout construction, the encroachment will be delineated using a combination of chain link fencing and interlocking F-type concrete jersey barriers complete with chain link fencing with a total height (concrete barrier and fencing structure) being 1.8m or 6ft as per the noted administrative order. This fencing will be open chain link fence or covered with an opaque dust control mesh of high quality which will extend a minimum 3m from the public right-of-way. This screening is described in the appendix and will block passersby or tourists view of the construction site. Throughout the project, fencing will be situated to not obstruct vehicle sight lines.

Along the private sidelines where vehicular traffic and non-vehicular traffic is present, the hoarding will be delineated by a combination of concrete waste blocks with rigid fencing mounted on top being 1.8m or 6ft as per the noted administrative order and weighted modular 1.8m (6ft) high fencing or existing fencing where it is at least 1.8m tall. All fencing will have opaque dust control mesh and must be anchored down to prevent unintentional movement or overturning due to snow or wind loads.

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.

Installation of F-Type concrete barriers, fencing and 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 opaque 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.

It is noted that surplus fencing must be stored and installed from private property when relocated for deliveries and be routinely re-established to keep the site secure. Surplus fencing cannot be stored within HRM's right-of-way.

## 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 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. The project will utilize two (2) gates during initial site excavation and the remaining phase 2 and 3 encroachments.

Any existing fire hydrants located adjacent to the site will remain protected from construction activities. These fire hydrants, along with the existing fire department 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; encroachment fee reductions are not anticipated.

## 8.5: Sight Lines

Rigid fencing and signage will be installed as per the CMP drawings such that vehicle sight lines are maintained around corners, particularly at driveway access points and existing intersections.

## 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

---

## 9.1: Crane Use Overview

This project will incorporate a tower crane, the 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 site's tower crane is shown in the appendix.

It is anticipated that the crane assembly and disassembly will be stationed on private property and within the encroachment area.

The crane swing will extend over neighbouring properties as shown in the Crane Swing Diagrams included in the appendix. The developer will notify adjacent property owners prior to extending the crane over their properties. Refer to the appendix for crane information.

Depending on the stage of construction, concrete trucks will be stationed within the encroachment area or private property during concrete operations. (See concrete delivery schematic within the appendix).

If lifting operations are required over the public realm, this area will be closed to access. In all cases of lifting, extreme care will be used to ensure public and worker safety.

### 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

---

### 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, concrete and material delivery trucks will be housed within encroachment area or private property accessed from North Street.

### 10.3: Emergency Access & Egress

The site will be accessible through gates to facilitate construction vehicle access. In cases of emergencies, on-site workers will exit the project site through these gates. These gates will remain closed but 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 CMP plan for details.

Gates are to remain closed at all times unless being used for deliveries to maintain a controlled access site preventing access by the general public to the construction site.

### 10.4: Security Site Lighting

Security site lighting is not anticipated 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

There are existing fire hydrants on Chebucto Road fronting civic 6469 and on the corner of Oxford and Chebucto that remain outside the project area and will be protected from construction activities. This fire hydrants, along with any existing fire department connections will be accessible to firefighters throughout all phases of the project.

There are no proposed fire department connections at this stage of the project. These are not available for fire department use until after the 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

---

### 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 contact 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 wise 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

---

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\37000-37999\37300\37333\CMP\Rev5\6431 North Street - CMP (Rev5) - 37333..docx

# APPENDIX

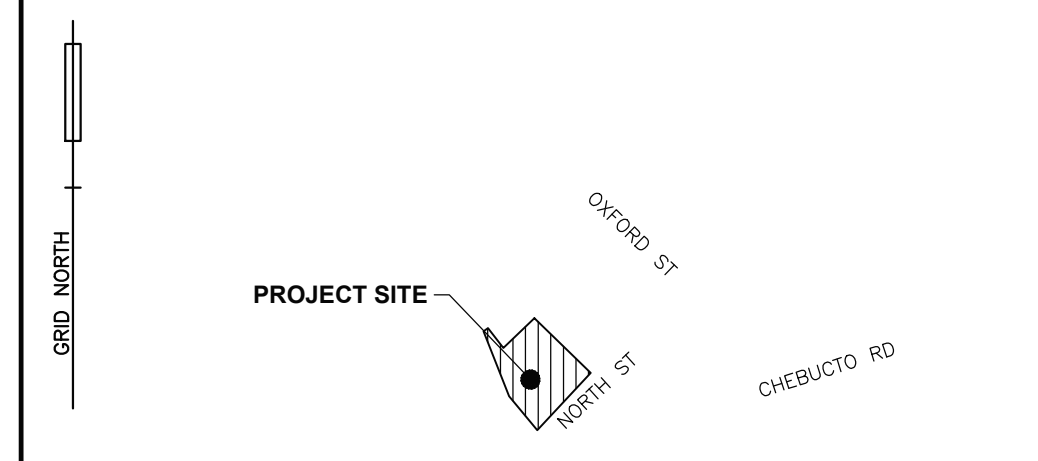
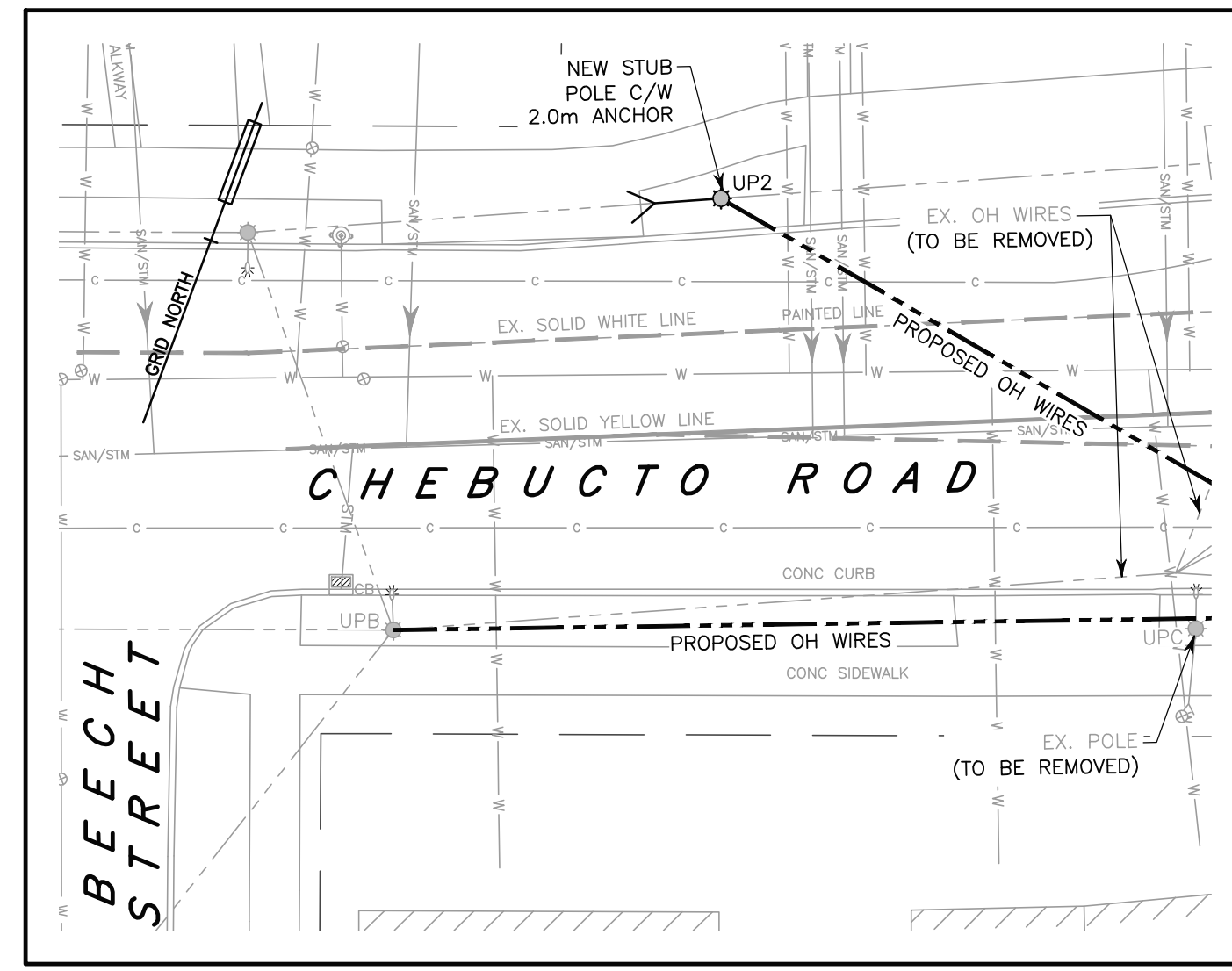
## Appendix A – Encroachment Plan

---









**KEY PLAN**

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

**NOTES**

- THIS PLAN IS IN METRIC.
- EXISTING CONDITIONS WITH APPROXIMATE LOCATIONS ARE BASED ON GOOGLE AERIAL IMAGERY AS SITE HAS NOT BEEN FIELD SURVEYED; DIMENSIONS MAY VARY AND SHALL BE CONFIRMED BY CONTRACTOR BEFORE PROCEEDING WITH CONSTRUCTION.
- REFER TO CIVIL PLANS FOR NEW SERVICE CONNECTION DETAILS.

| No. | YY/MM/DD | Revision                             | Description | Appr'd |
|-----|----------|--------------------------------------|-------------|--------|
| 4   | 24/12/11 | REVISED AS PER CLIENT COMMENTS       |             |        |
| 3   | 24/08/26 | REVISED AS PER HRM COMMENTS          |             |        |
| 2   | 24/05/16 | REVISED AS PER HRM & CLIENT COMMENTS |             |        |
| 1   | 24/02/05 | REVISED AS PER HRM COMMENTS          |             |        |
| 0   | 22/09/27 | ISSUED FOR REVIEW                    |             |        |

REGISTERED PROFESSIONAL ENGINEER

G.K. MacLean

8978

NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS

**SDMM**

Servant, Dunbrack, McKenzie & MacDonald Ltd.

NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS

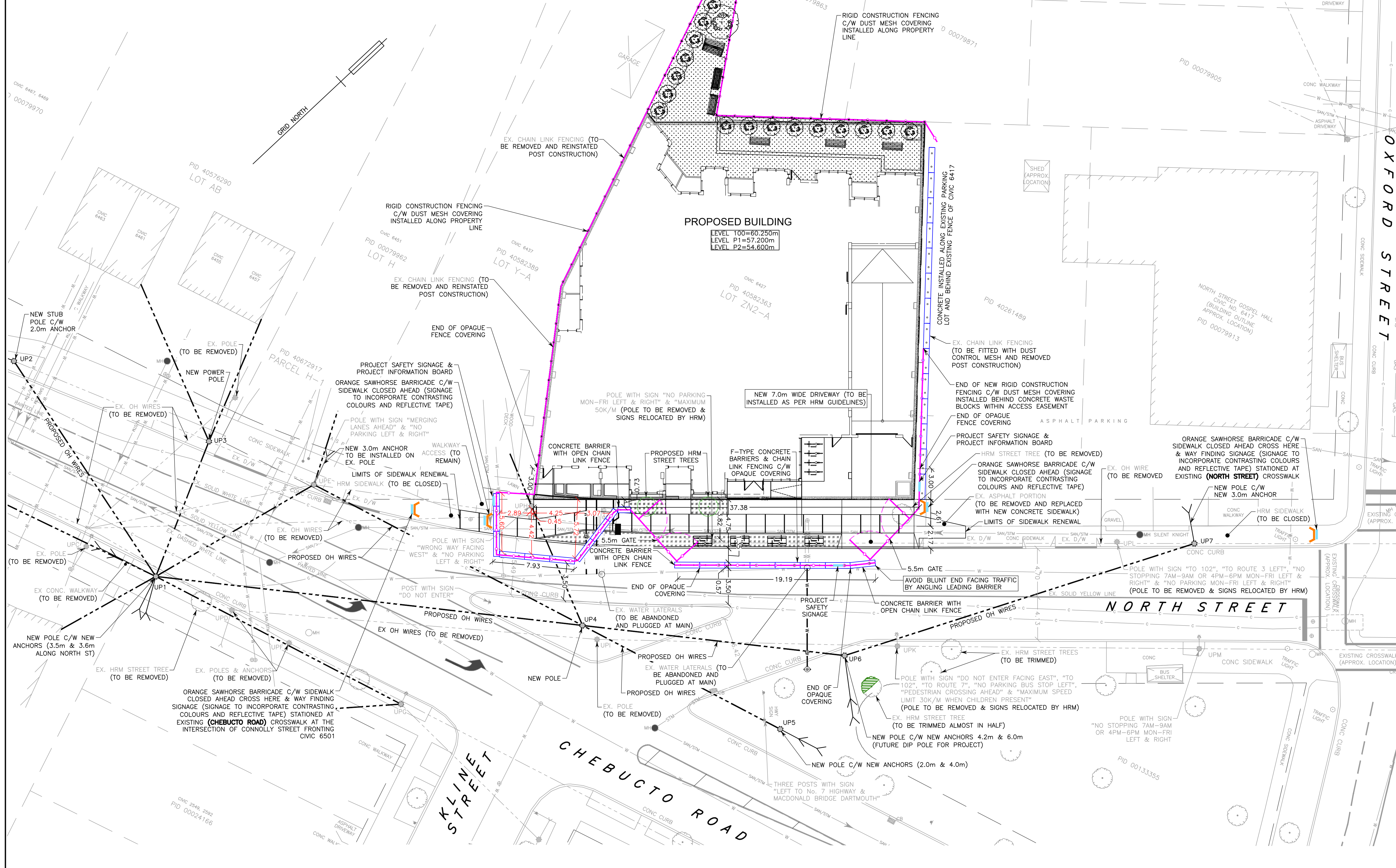
36 CLAND CRESCENT  
BARRERS LAKE BUSINESS PARK  
HALIFAX, NS B3S 1G6

PHONE: (902) 455-1537  
FAX: (902) 455-8479  
WEB: www.sdmm.ns.ca

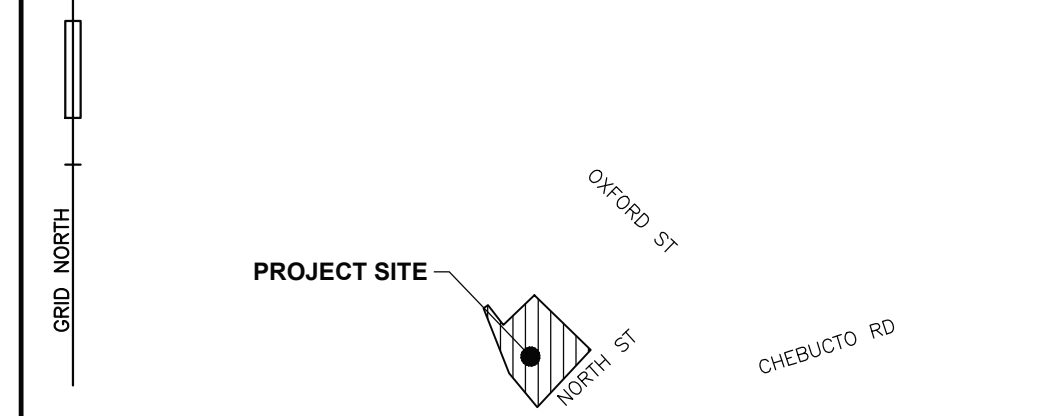
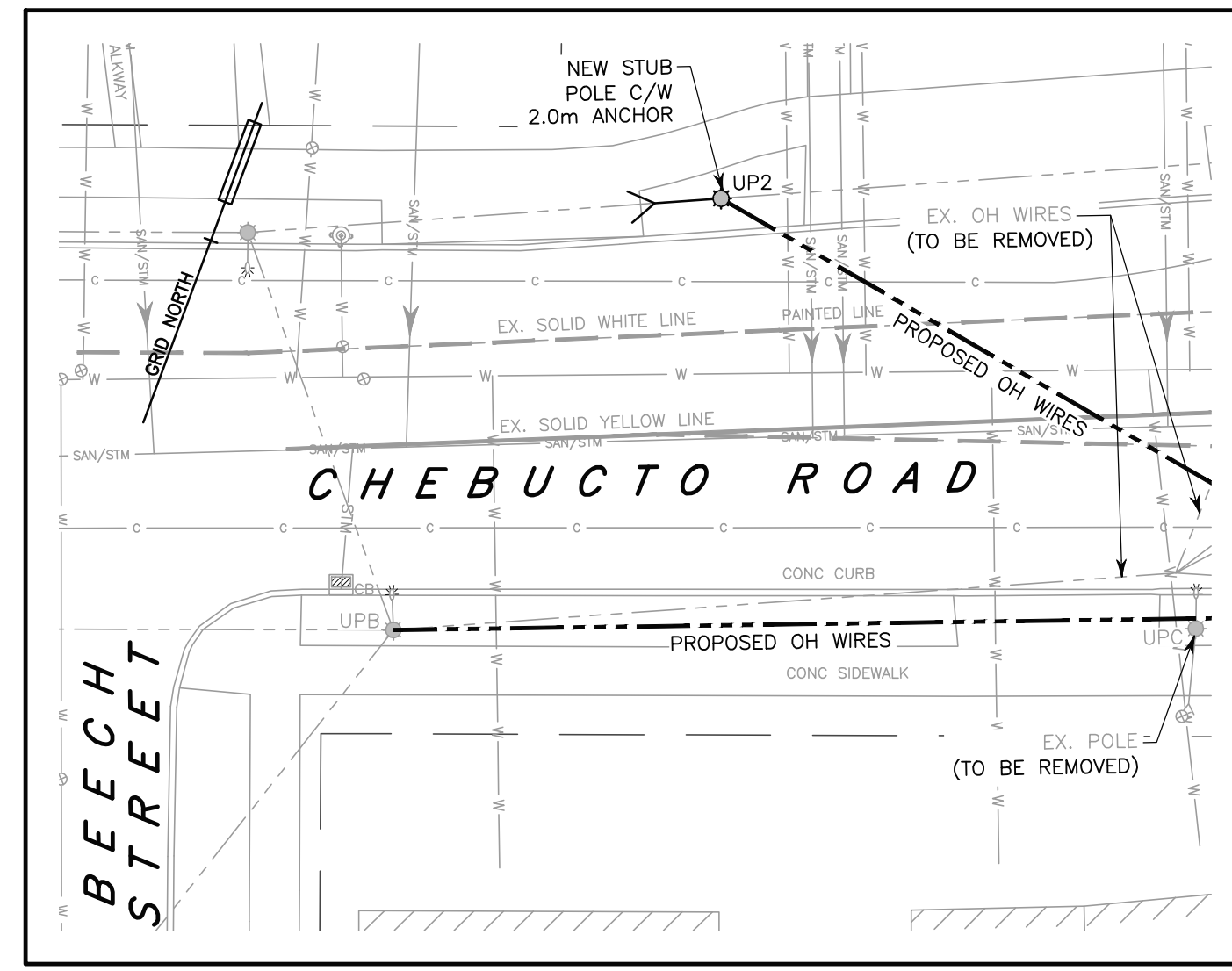
**PROPOSED BUILDING**  
6421, 6425-6427, 6431 NORTH STREET  
HALIFAX, NOVA SCOTIA

**PHASE 2 – ENCROACHMENT PLAN**

|           |                   |          |             |              |                           |
|-----------|-------------------|----------|-------------|--------------|---------------------------|
| Date      | SEPTMBER 27, 2022 | Drawn    | D. ANDERSON | Project No.  | FILE NO. 1-1-403 (373333) |
| Scale     | 1:200             | Engineer | G. MACLEAN  | Plan No.     |                           |
| Reference | --                | Approved | G. MACLEAN  | Drawing Name |                           |
| Surveyed  | SDMM              | Sheet    |             |              | R1-B                      |



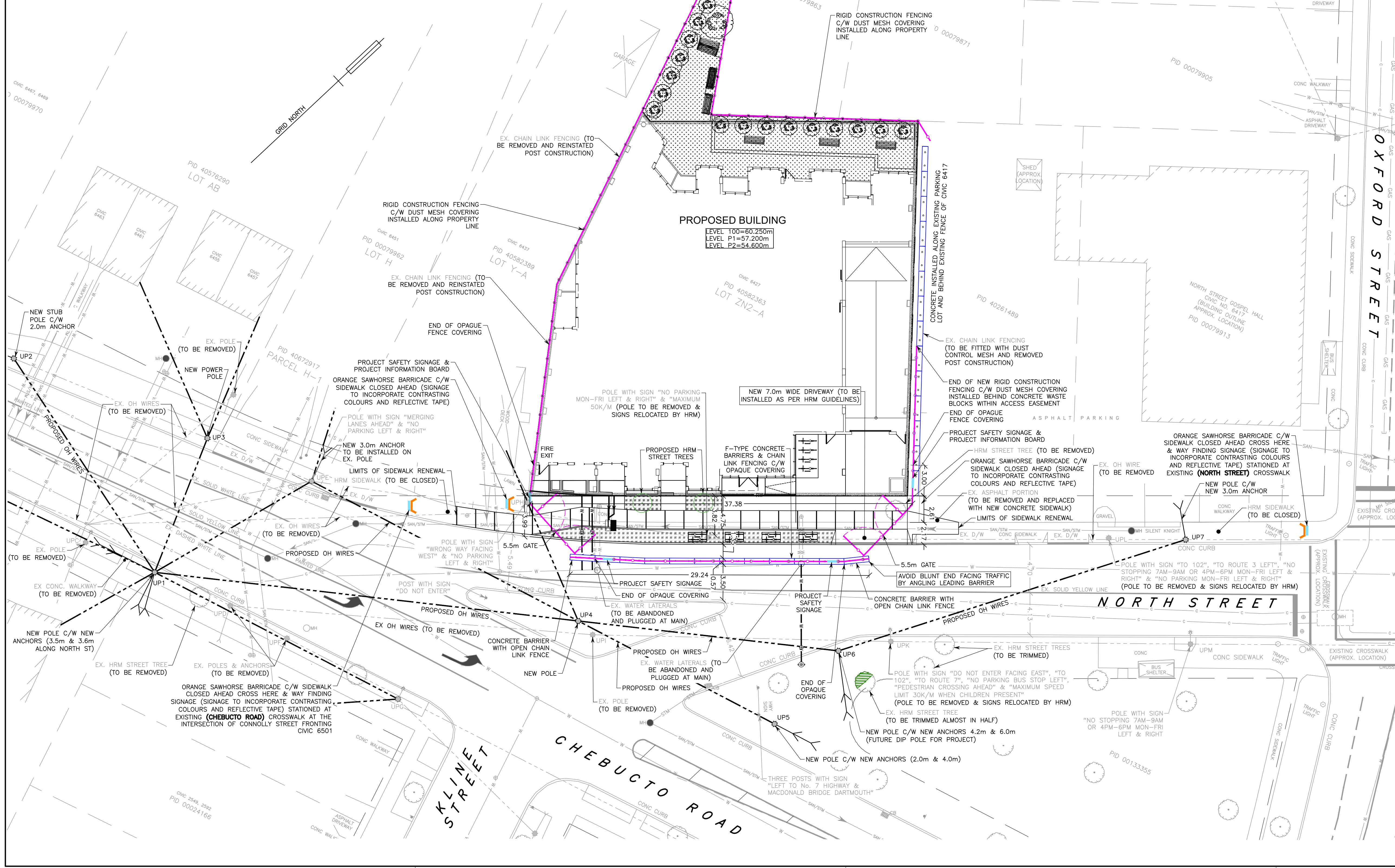




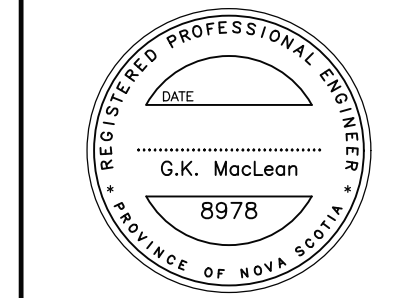
| EXISTING |                                    | LEGEND |                                    | PROPOSED |                                    |
|----------|------------------------------------|--------|------------------------------------|----------|------------------------------------|
| 25.0     | CONTOUR LINE                       | 25.0   | CONTOUR LINE                       | 25.0     | CONTOUR LINE                       |
| ⊙/⊙BF    | CURB STOP/GATE/BUTTERFLY VALVE     | ⊙/⊙BF  | CURB STOP/GATE/BUTTERFLY VALVE     | ⊙/⊙BF    | CURB STOP/GATE/BUTTERFLY VALVE     |
| ⊙        | FIRE HYDRANT                       | ⊙      | FIRE HYDRANT                       | ⊙        | FIRE HYDRANT                       |
| ⊙        | CONCRETE THRUST BLOCK              | ⊙      | CONCRETE THRUST BLOCK              | ⊙        | CONCRETE THRUST BLOCK              |
| ⊙        | SIAMESE CONNECTION                 | ⊙      | SIAMESE CONNECTION                 | ⊙        | SIAMESE CONNECTION                 |
| ⊙        | CATCH BASIN/PIT                    | ⊙      | CATCH BASIN/PIT                    | ⊙        | CATCH BASIN/PIT                    |
| ⊙        | CULVERT                            | ⊙      | CULVERT                            | ⊙        | CULVERT                            |
| ⊙        | ROCK LINING/DAM                    | ⊙      | ROCK LINING/DAM                    | ⊙        | ROCK LINING/DAM                    |
| ⊙        | ROCK WALL/RETAINING WALL           | ⊙      | ROCK WALL/RETAINING WALL           | ⊙        | ROCK WALL/RETAINING WALL           |
| ⊙        | POWER POLE & ANCHOR/LIGHT STANDARD | ⊙      | POWER POLE & ANCHOR/LIGHT STANDARD | ⊙        | POWER POLE & ANCHOR/LIGHT STANDARD |
| ⊙        | TREE                               | ⊙      | TREE                               | ⊙        | TREE                               |
| ⊙        | STREET SIGN/PARKING METER          | ⊙      | STREET SIGN/PARKING METER          | ⊙        | STREET SIGN/PARKING METER          |
| ⊙        | ELEVATION/GRADE                    | ⊙      | ELEVATION/GRADE                    | ⊙        | ELEVATION/GRADE                    |
| ⊙        | TEST PIT                           | ⊙      | TEST PIT                           | ⊙        | TEST PIT                           |
| ⊙        | DRAINAGE/SWALE FLOW DIRECTION      | ⊙      | DRAINAGE/SWALE FLOW DIRECTION      | ⊙        | DRAINAGE/SWALE FLOW DIRECTION      |
| ⊙        | WATER MAIN/SERVICE                 | ⊙      | WATER MAIN/SERVICE                 | ⊙        | WATER MAIN/SERVICE                 |
| ⊙        | SANITARY MANHOLE & PIPE            | ⊙      | SANITARY MANHOLE & PIPE            | ⊙        | SANITARY MANHOLE & PIPE            |
| ⊙        | STORM MANHOLE & PIPE               | ⊙      | STORM MANHOLE & PIPE               | ⊙        | STORM MANHOLE & PIPE               |
| ⊙        | COMBINED PIPE                      | ⊙      | COMBINED PIPE                      | ⊙        | COMBINED PIPE                      |
| ⊙        | GAS LINE                           | ⊙      | GAS LINE                           | ⊙        | GAS LINE                           |
| ⊙        | 100YR. FLOOD LIMIT                 | ⊙      | 100YR. FLOOD LIMIT                 | ⊙        | 100YR. FLOOD LIMIT                 |
| ⊙        | GUARD RAIL                         | ⊙      | GUARD RAIL                         | ⊙        | GUARD RAIL                         |
| ⊙        | UNDERGROUND CONDUIT                | ⊙      | UNDERGROUND CONDUIT                | ⊙        | UNDERGROUND CONDUIT                |
| ⊙        | OVERHEAD WIRES                     | ⊙      | OVERHEAD WIRES                     | ⊙        | OVERHEAD WIRES                     |
| ⊙        | PROPERTY LINE/BOUNDARY             | ⊙      | PROPERTY LINE/BOUNDARY             | ⊙        | PROPERTY LINE/BOUNDARY             |
| ⊙        | FENCE                              | ⊙      | FENCE                              | ⊙        | FENCE                              |
| ⊙        | BUILDING                           | ⊙      | BUILDING                           | ⊙        | BUILDING                           |
| ⊙        | TOP OF SLOPE                       | ⊙      | TOP OF SLOPE                       | ⊙        | TOP OF SLOPE                       |
| ⊙        | TOE OF SLOPE                       | ⊙      | TOE OF SLOPE                       | ⊙        | TOE OF SLOPE                       |
| ⊙        | TREELINE                           | ⊙      | TREELINE                           | ⊙        | TREELINE                           |
| ⊙        | LIMITS OF DISTURBANCE              | ⊙      | LIMITS OF DISTURBANCE              | ⊙        | LIMITS OF DISTURBANCE              |
| ⊙        | TACTILE PEDESTRIAN PLATES          | ⊙      | TACTILE PEDESTRIAN PLATES          | ⊙        | TACTILE PEDESTRIAN PLATES          |
| ⊙        | PROJECT SAFETY SIGNAGE             | ⊙      | PROJECT SAFETY SIGNAGE             | ⊙        | PROJECT SAFETY SIGNAGE             |
| ⊙        | ORANGE SAWHORSE BARRICADE          | ⊙      | ORANGE SAWHORSE BARRICADE          | ⊙        | ORANGE SAWHORSE BARRICADE          |

**NOTES**

- THIS PLAN IS IN METRIC.
- EXISTING CONDITIONS WITH APPROXIMATE LOCATIONS ARE BASED ON GOOGLE AERIAL IMAGERY AS SITE HAS NOT BEEN FIELD SURVEYED; DIMENSIONS MAY VARY AND SHALL BE CONFIRMED BY CONTRACTOR BEFORE PROCEEDING WITH CONSTRUCTION.
- REFER TO CIVIL PLANS FOR NEW SERVICE CONNECTION DETAILS.



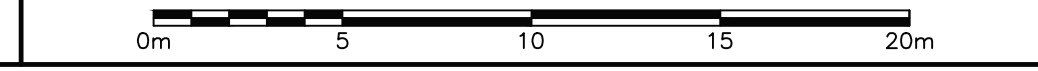
| No. | YY/MM/DD | Revision | Description       | Appr'd |
|-----|----------|----------|-------------------|--------|
| 0   | 24/12/11 |          | ISSUED FOR PERMIT |        |



**SDMM**  
 Servant, Dumbrack, McKenzie & MacDonald Ltd.  
 NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS  
 36 CLAND CRESCENT  
 BARRERS LAKE BUSINESS PARK  
 HALIFAX, NS B3S 1G6  
 PHONE: (902) 455-1537  
 FAX: (902) 455-8479  
 WEB: www.sdmm.ns.ca

**PROPOSED BUILDING**  
 6421, 6425-6427, 6431 NORTH STREET  
 HALIFAX, NOVA SCOTIA

| PHASE 3 - ENCROACHMENT PLAN |             |                           |
|-----------------------------|-------------|---------------------------|
| Date                        | Drawn       | Project No.               |
| DECEMBER 11, 2024           | D. ANDERSON | FILE NO. 1-1-403 (373333) |
| Scale                       | Engineer    | Plan No.                  |
| 1:200                       | G. MACLEAN  |                           |
| Reference                   | Approved    | Drawing Name              |
| --                          | G. MACLEAN  | R1-C                      |
| Surveyed                    | Sheet       |                           |
| SDMM                        |             |                           |

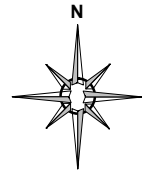




## **Appendix B – Traffic Control Plans TCP**

---




# Encroachment Signage Plan Phase 1



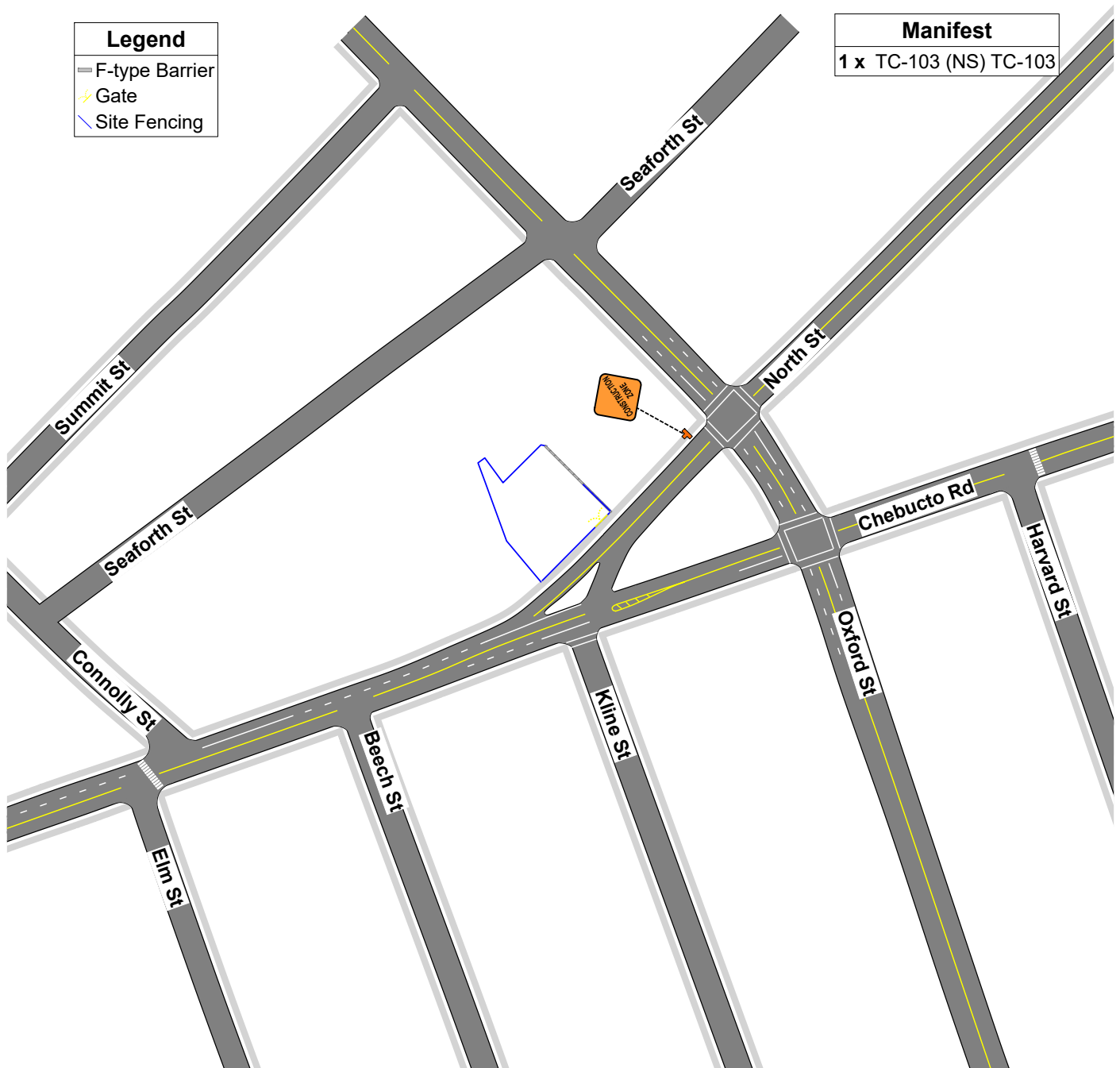
**Date:** 2024-02-26 **Author:** Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 **Project:** 6421~31 North St  
**Contractor:** SDMM **Contact:** Geoff MacLean, 902-789-6374

**Comments:**

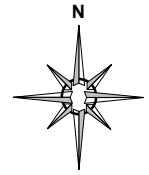
Not to Scale  
Encroachment Signage Plan Phase 1  
No sidewalk encroachment. Off Shoulder work area  
This section of North St is Evening and Weekend Restricted according to HRM TCM Supplement

| Legend  |                |
|---|----------------|
|  | F-type Barrier |
|  | Gate           |
|  | Site Fencing   |

| Manifest |                    |
|----------|--------------------|
| 1 x      | TC-103 (NS) TC-103 |

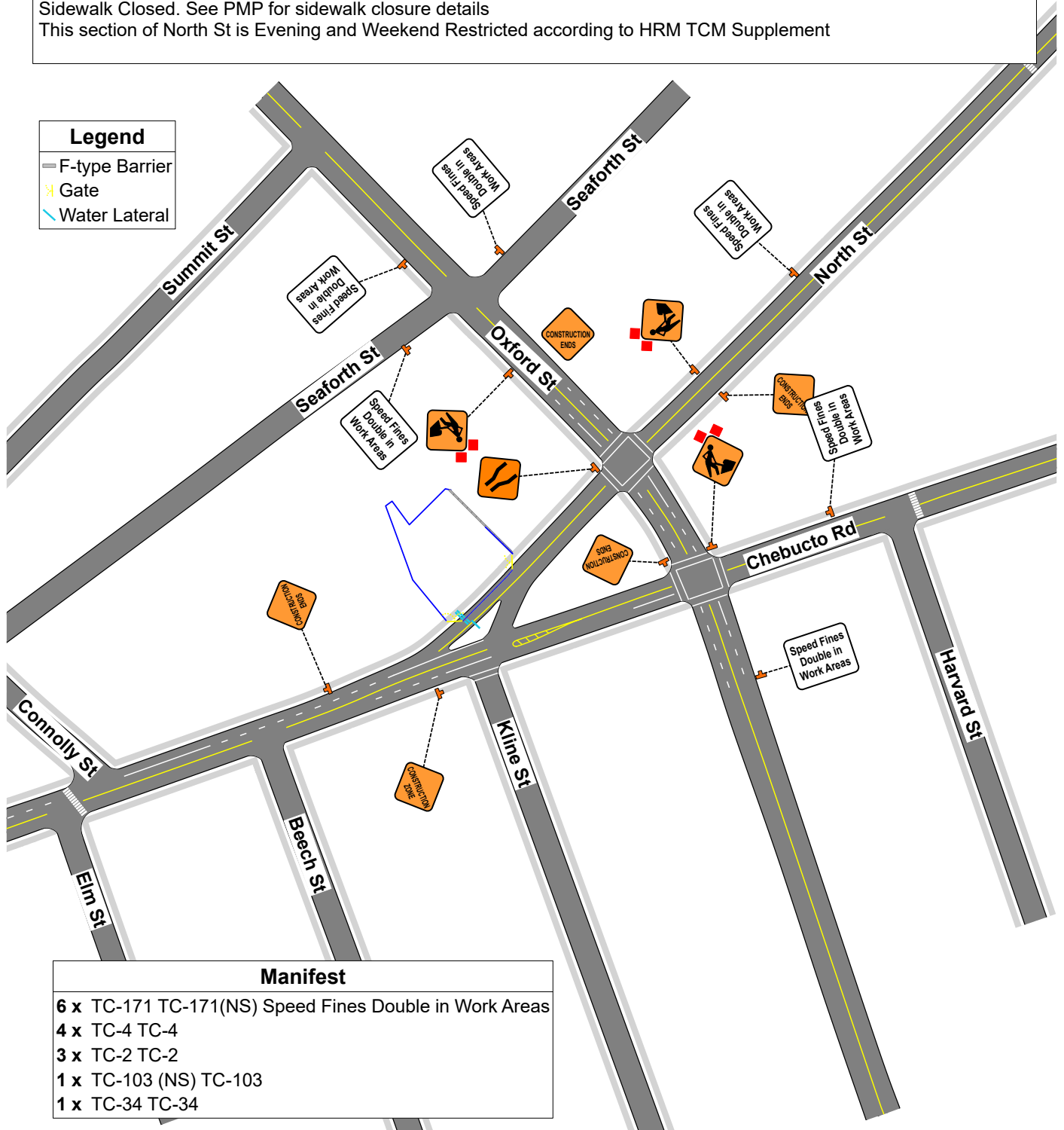


# Encroachment Signage Plan Phases 2 & 3



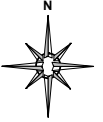
**Date:** 2024-02-26 **Author:** Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 **Project:** 6421~31 North St  
**Contractor:** SDMM **Contact:** Geoff MacLean, 902-789-6374  
**Comments:**  
 Not to Scale  
 Encroachment Signage Plan Phase 2  
 Application Guide C22  
 Sidewalk Closed. See PMP for sidewalk closure details  
 This section of North St is Evening and Weekend Restricted according to HRM TCM Supplement

| Legend |                |
|--------|----------------|
|        | F-type Barrier |
|        | Gate           |
|        | Water Lateral  |



| Manifest |  |
|----------|--|
| 6 x      | TC-171 TC-171(NS) Speed Fines Double in Work Areas |
| 4 x      | TC-4 TC-4  |
| 3 x      | TC-2 TC-2  |
| 1 x      | TC-103 (NS) TC-103                                 |
| 1 x      | TC-34 TC-34  |

# Construction Activities Traffic Plan



**Date:** 2024-02-26 **Author:** Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 **Project:** 6421-31 North St  
**Contractor:** SDMM **Contact:** Geoff MacLean, 902-789-6374  
**Comments:**  
 Not to Scale  
 Application Guide C112  
 This section of North St is evening and weekend restricted as per the HRM TCM Supplement  
 See PMP for sidewalk closure details  
 This plan to be used for all construction activities for this site.

**Legend**

- Barrel
- Control Position
- F-type Barrier
- Gate
- Water Lateral
- Work Area

| Manifest |  |
|----------|--|
| 40 x     | Barrel   |
| 13 x     | TC-171 TC-171(NS) Speed Fines Double in Work Areas |
| 11 x     | TC-2 TC-2  |
| 11 x     | TC-4 TC-4  |
| 7 x      | TC-21 TC-21  |
| 3 x      | Arrowboard (Single)                                |
| 3 x      | TC-21A (NS) TC-21A                                 |
| 2 x      | TC-5L TC-5L  |



# Hydrant Installation Plan

Date: 2024-02-26 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 6421~31 North St  
Contractor: SDMM Contact: Geoff MacLean, 902-789-6374

**Comments:**

Not to Scale  
Application Guide C112  
This section of North St is evening and weekend restricted as per the HRM TCM Supplement  
See PMP for sidewalk closure details  
Use this Plan along with General Construction Activities Plan Leave a 3 meter travel lane



**Legend**

- Barrel
- Cone
- Control Position
- F-type Barrier
- Fire Hydrant
- Gate
- Water Lateral
- Work Area

**Manifest**

- 31 x Barrel
- 13 x TC-171 TC-171(NS) Speed Fines Double in Work Areas
- 12 x TC-2 TC-2
- 12 x TC-4 TC-4
- 11 x Cone
- 7 x TC-21 TC-21
- 3 x TC-21A (NS) TC-21A
- 2 x TC-5L TC-5L





# Hydrant Installation Plan Option 2



Date: 2024-02-26 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 6421~31 North St  
Contractor: SDMM Contact: Geoff MacLean, 902-789-6374

**Comments:**

Not to Scale  
Application Guide C112  
This section of North St is evening and weekend restricted as per the HRM TCM Supplement  
See PMP for sidewalk closure details  
Use this Plan along with General Construction Activities Plan Leave a 3 meter travel lane

**Legend**

- Barrel
- Cone
- F-type Barrier
- Fire Hydrant
- Gate
- Water Lateral
- Work Area

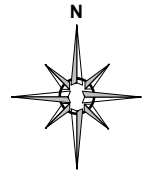
| Manifest |  |
|----------|--|
| 12 x     | Barrel   |
| 11 x     | Cone   |
| 11 x     | TC-171 TC-171(NS) Speed Fines Double in Work Areas |
| 7 x      | TC-4 TC-4  |
| 6 x      | TC-2 TC-2  |
| 3 x      | TC-10  |
| 2 x      | TC-11  |
| 1 x      | RB-12  |
| 1 x      | TC-11L   |
| 1 x      | TC-12S   |



## Appendix C – Haul Route Plan

---

# Haul Route Plan



**Date:** 2024-02-26 **Author:** Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 **Project:** 6421~31 North St  
**Contractor:** SDMM **Contact:** Geoff MacLean, 902-789-6374

**Comments:**

Not to Scale

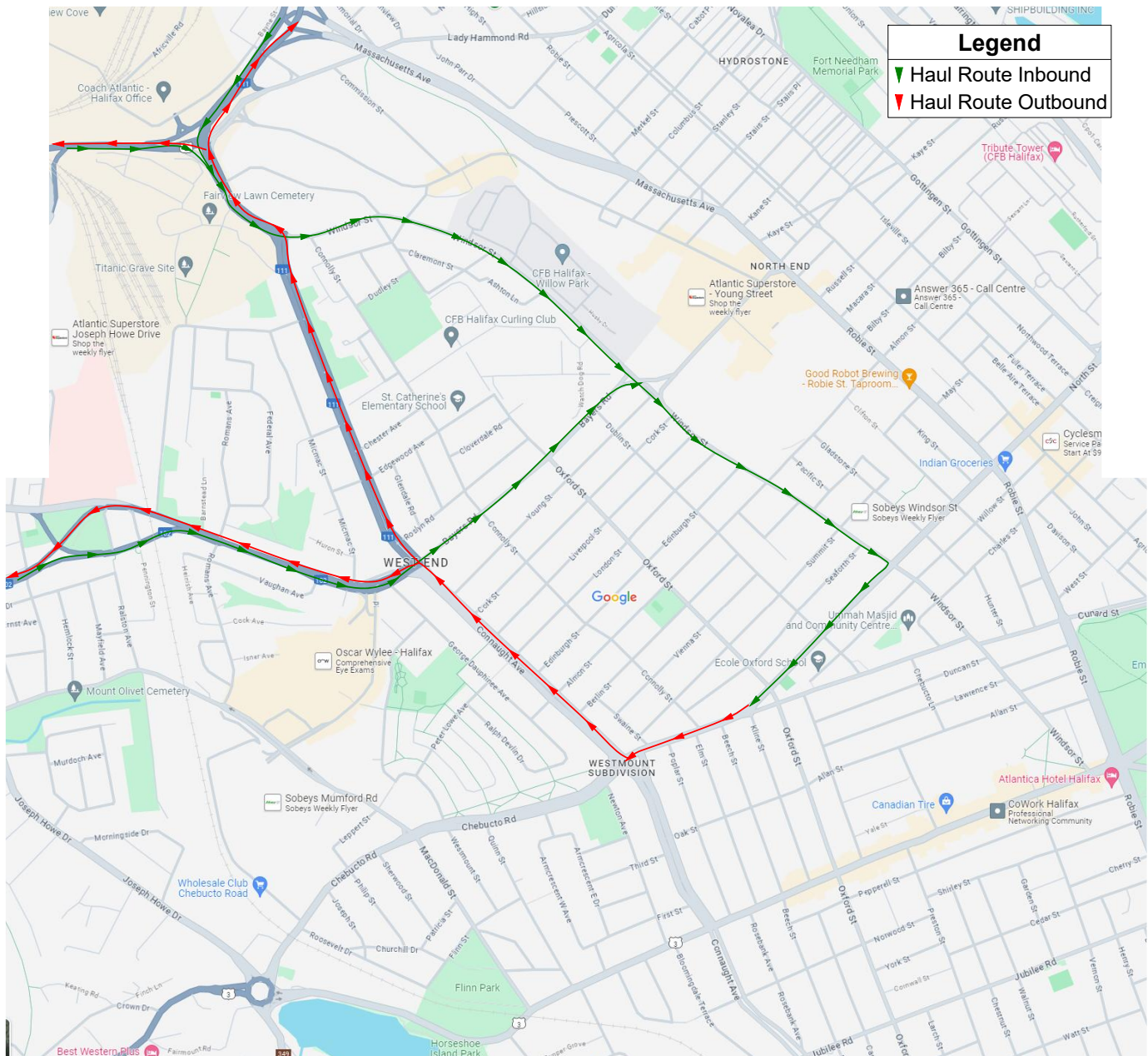
Haul Route Plan

Inbound via Bedford Hwy or Bridge to Windsor St to North St to Site

Alternatively, vehicles coming from Hwy 102 to Bayers Rd to Windsor St to North St

Outbound via North St to Connaught St to Bayers Rd to Hwy 102 or

via Connaught St to Windsor St to the Bedford Hwy or Bridge



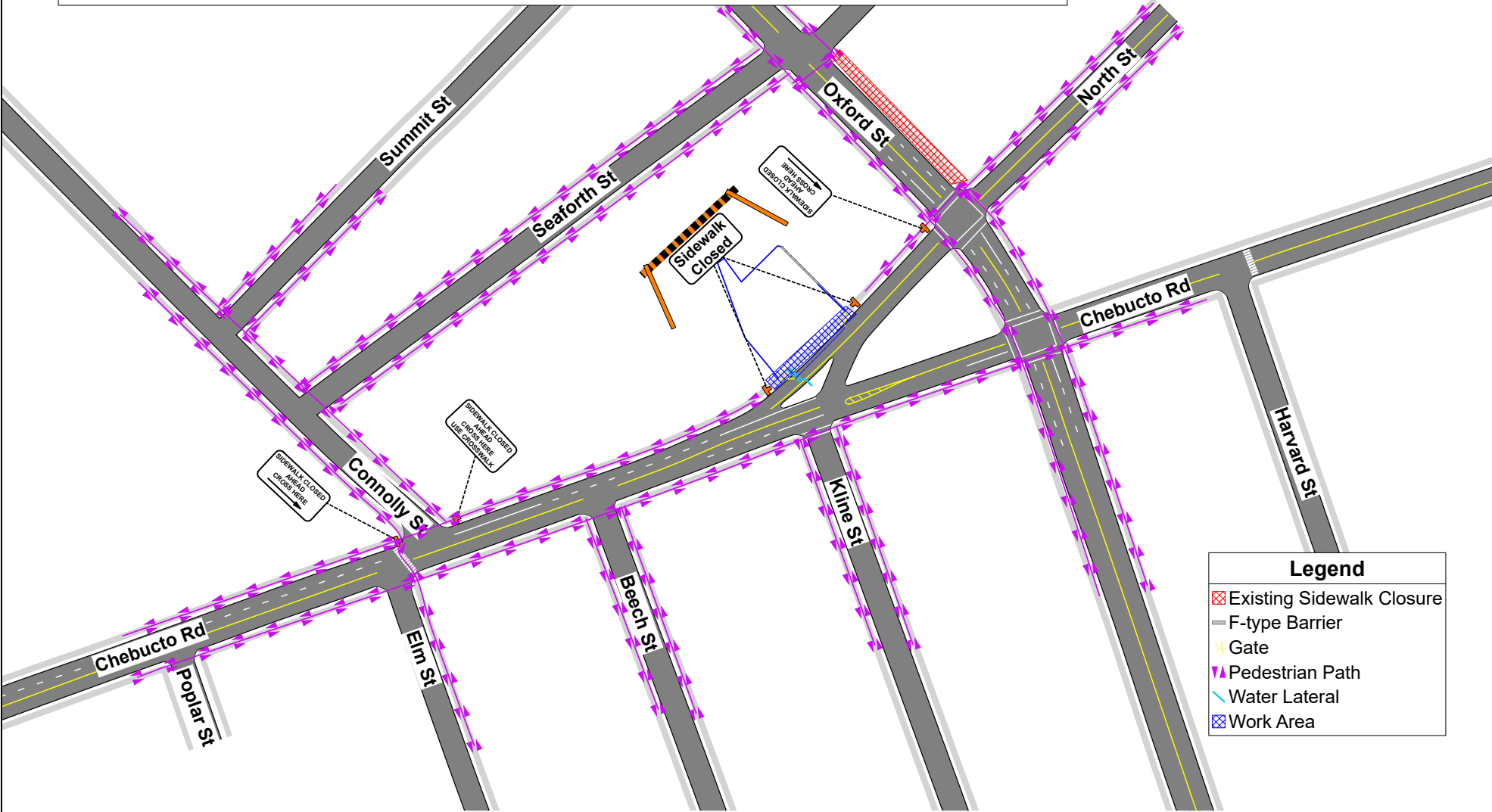
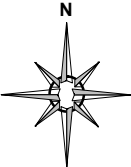
## Appendix D – Pedestrian Management Plan (PMP)

---

# Pedestrian Management Plan

**Date:** 2024-02-26 **Author:** Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 **Project:** 6421~31 North St  
**Contractor:** SDMM **Contact:** Geoff MacLean, 902-789-6374

**Comments:**  
Not to Scale  
Pedestrian Management Plan  
For the Long Duration Closure of the Sidewalk adjacent to the building site

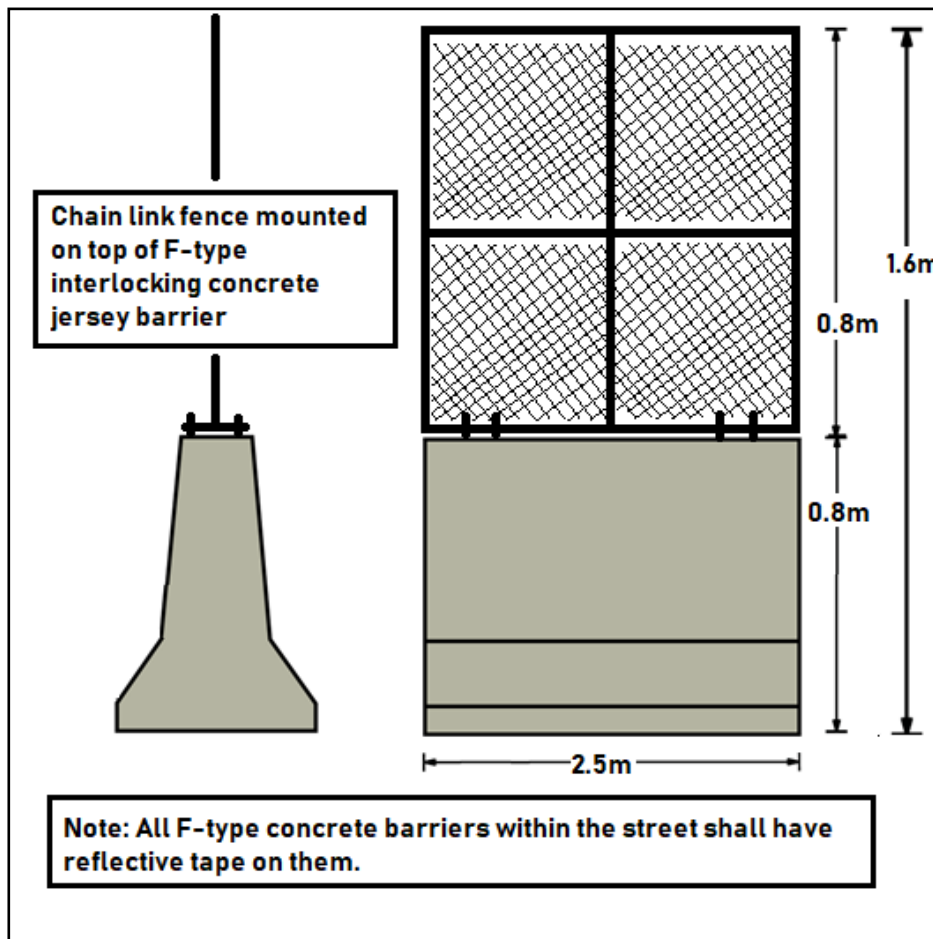
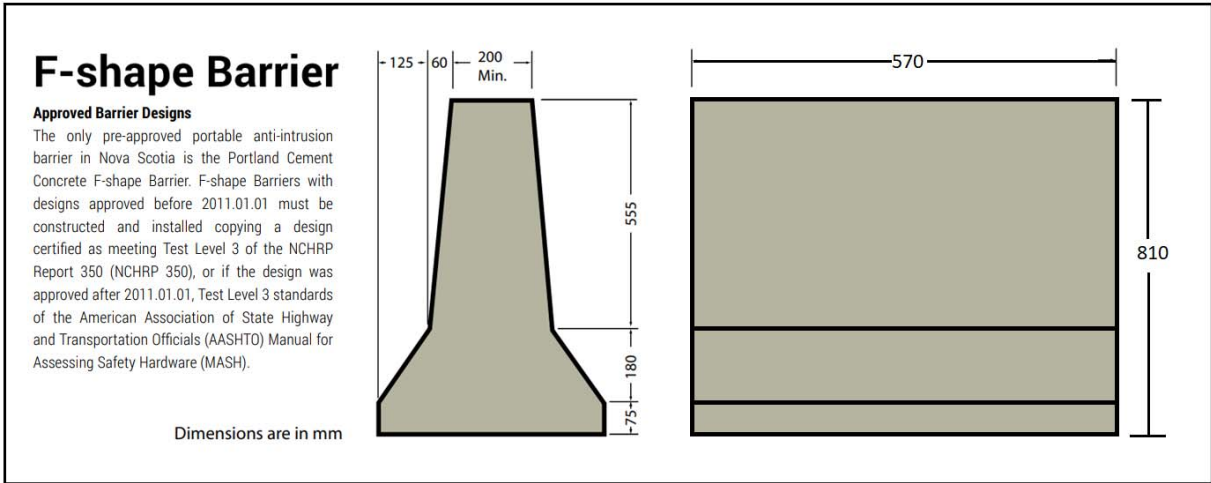


| Legend |                           |
|--------|---------------------------|
|        | Existing Sidewalk Closure |
|        | F-type Barrier            |
|        | Gate                      |
|        | Pedestrian Path           |
|        | Water Lateral             |
|        | Work Area                 |

## Appendix E – Barrier, Fence & Gates Information

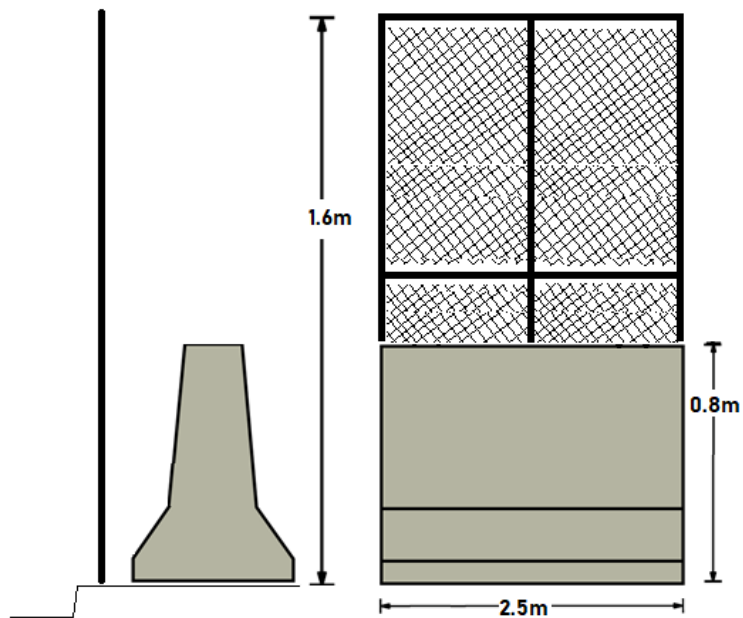
---

# Sample Barrier & Fence Details

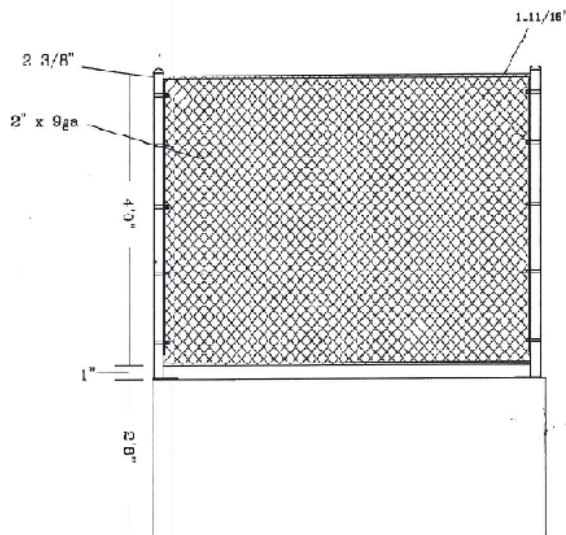




Fence mounted to curb with interlocking F-type concrete jersey barriers set beside

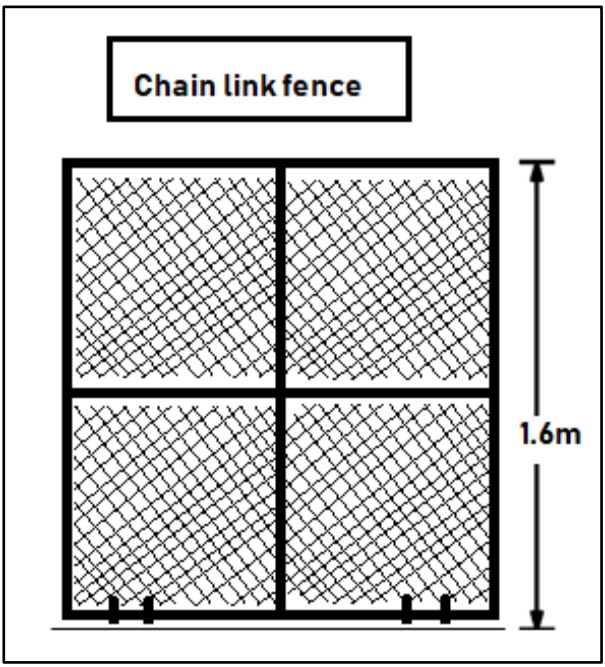
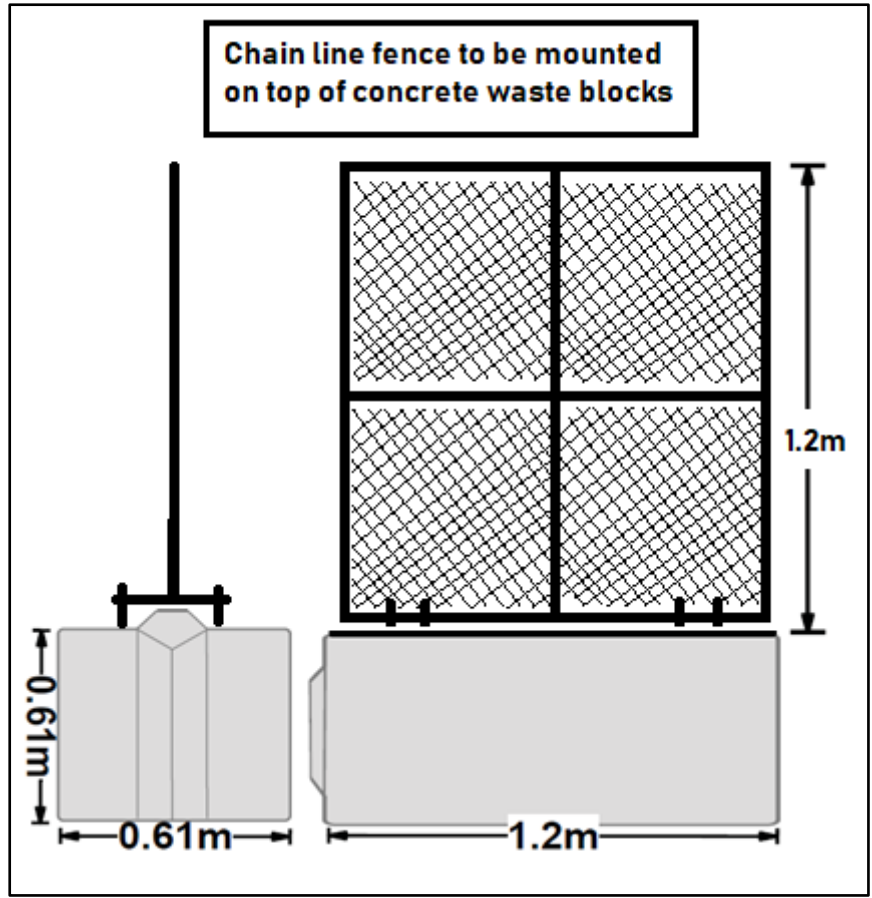


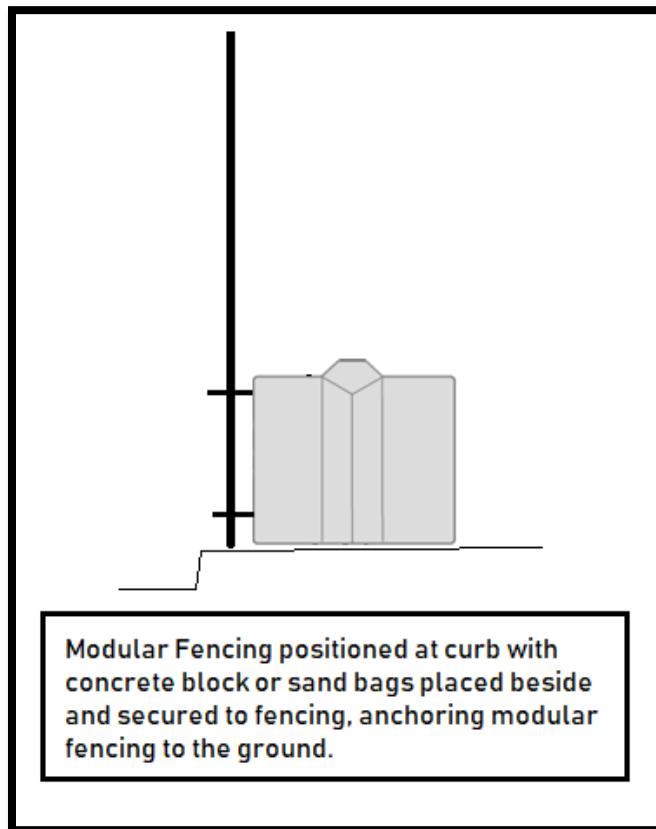
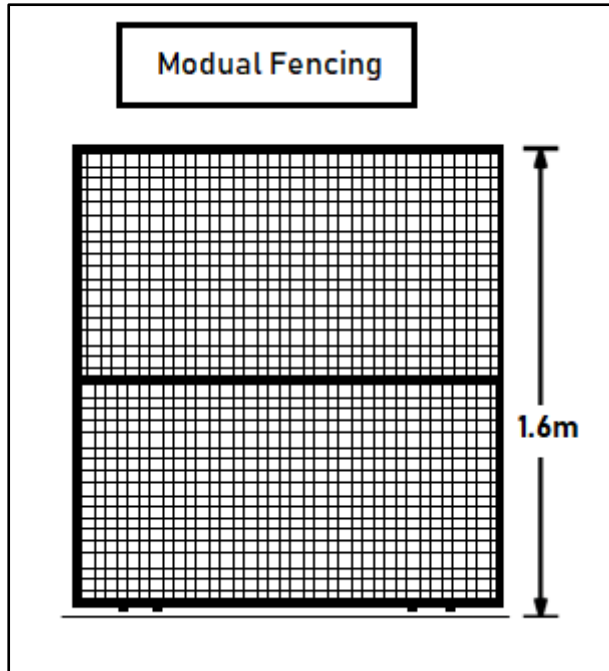
Note: All F-type concrete barriers within the street shall have reflective tape on them.



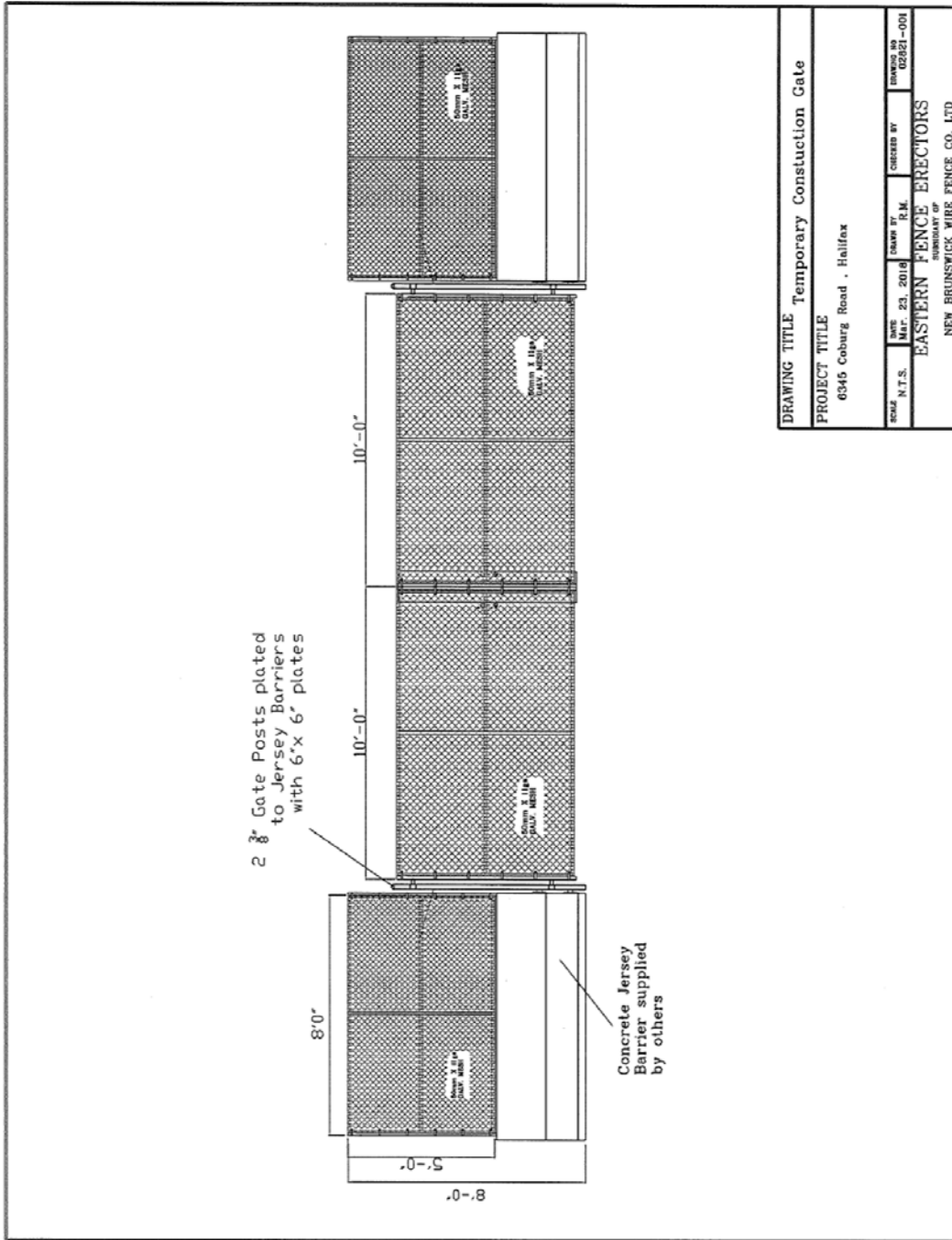
|  |      |      |      |      |              |      |      |      |      |
|--|------|------|------|------|--------------|------|------|------|------|
| DRAWING  |      |      |      |      | SHOP DRAWING |      |      |      |      |
| DRAWING TITLE  |      |      |      |      |              |      |      |      |      |
| PROJECT TITLE  |      |      |      |      |              |      |      |      |      |
| DATE   | DATE | DATE | DATE | DATE | DATE         | DATE | DATE | DATE | DATE |
| BY   | BY   | BY   | BY   | BY   | BY           | BY   | BY   | BY   | BY   |
| RANFORD FENCE<br>A DIVISION OF<br>NEW BRUNSWICK FENCE CO. LTD. |      |      |      |      |              |      |      |      |      |







Sample Gate Detail



|   |                       |                          |                    |
|---|-----------------------|--------------------------|--------------------|
| DRAWING TITLE Temporary Constuction Gate    |                       |                          |                    |
| PROJECT TITLE<br>6345 Coburg Road . Halifax |                       |                          |                    |
| SCALE N.T.S.                                | DATE<br>Mar. 23, 2018 | DRAWN BY<br>R.M.         | CHECKED BY<br>R.M. |
| EASTERN FENCE ERECTORS                      |                       | DRAWING NO.<br>02021-001 |                    |
| NEW BRUNSWICK WIRE FENCE CO. LTD            |                       |                          |                    |

## Appendix F – Hoarding Information

---

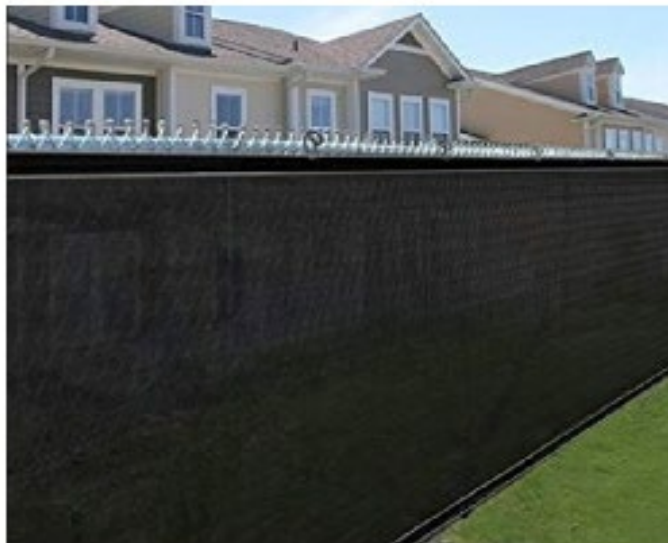
Opaque construction hoarding material shall covering and be adequately secured to the rigid fencing that outlines the encroachment area. This covering shall be continuous such that it prevents passersby or tourist from seeing through the fencing and gates to the active construction site.

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



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<br>Weft 1100 n/5cm | 142.75 x 130.19 lb/in   |
| Tear Strength          | DIN53356 BS3424           | Warp 235 N<br>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 guaranty 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.)

## Appendix G – Project Information Board

---





**May 2024 – February 2026**

**NORTH APARTMENTS  
6431 North Street**

7 Storey Building with Penthouse

73 Residential Units on 7 levels

Mixture of Studio, 1 bedroom & 2  
Bedroom Apartment Units

2 levels - Underground Parking

Surface and Underground Bicycle  
Parking/Storage

Level 8 Landscape Rooftop with Indoor &  
Outdoor Common Areas

**Construction Manager:**

RoMa Developments  
12 Ella Lane, Bedford, NS, B4B 2J6

**24 Hour Emergency Contact:**

**Hayden Hopgood – (902) 300-2602**

**Site Contractor:**

Allterrain Contracting Inc.  
700 Windgate Drive,  
Beaverbank, NS, B4G 0A6

**Contact:**

Kirby Densmore - (902) 478-1170

**Traffic Control:**

Frontline Traffic Services  
6 Belmont Avenue, P.O. Box 89,  
Eastern Passage, NS, B3G 1M7

**Contact:**

Tyler Hayman - (902) 818-5548

**Rodent Control Company:**

Rentokil Pest Control  
51 Duke Street, Bedford, Bedford, NS

**Contact:**

Main Office - (902) 835-2304

## Appendix H – Project Safety Signage

---



**RESTRICTED**  
**— AREA —**

**CONSTRUCTION**  
**WORK IN**  
**PROGRESS**

## Appendix I – 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 of 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 can be considered 'informed'.**

Samples



## Appendix J – Sample Traffic Notification Letter

---



## Proposed Multi-Unit Residential Building 6431 North Street

### DRAFT NOTIFICATION LETTER

### TO WHOM IT MAY CONCERN

### Date

### NOTIFICATION OF TRAFFIC DISRUPTION: **Street Name**, HALIFAX, NOVA SCOTIA

This is to inform you that the to facilitate operations in association with the Multi-Unit Residential building 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:

### **Allterrain Contracting Inc.**

700 Windgate Drive

Beaverbank, NS

B4G 0A6

Phone: (902) 478-1170

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

Yours Truly,

Kirby Densmore

**Allterrain Contracting Inc.**



## Appendix K – Vehicular and Pedestrian Hazard Assessment

---

Project

Date:

Location:

## VEHICULAR &amp; PEDESTRIAN HAZARD ASSESSMENT

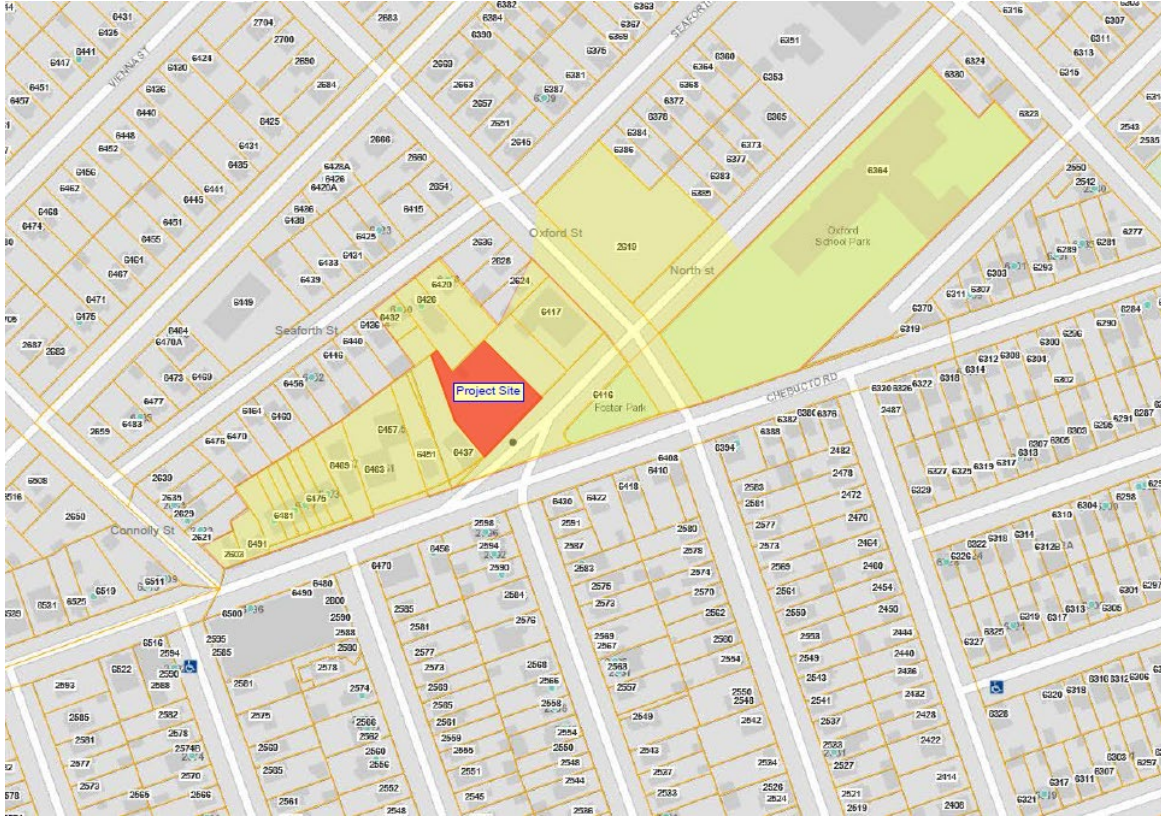
| No. | Hazard:   | Project Phase: | Vehicular Impacts:   | Mitigation Methods:   | Pedestrian Impacts:  | Mitigation Methods:  |
|-----|---|----------------|--|---|--|--|
| 1   | Excavation  | Excavation     | Vehicles may enter project site and fall down excavation.  | Place concrete barriers along 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.  |
|     |   |                | 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.  |
|     |   |                | 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 be 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. Pedestrians will be moved to opposite sides of street from the project site or onto temporary sidewalks such that 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, this separating pedestrians from potential fallen debris.   |

## Appendix L – Community Consultation Records

---

# COMMUNITY CONSULTATION MAP OVERVIEW

## Project – North Apartments



# Notification Letter

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

RoMa Development Inc – Building Construction Information Meeting

Dear Neighbour,

As you may be aware, we are planning an apartment building construction project located at 6431 North Street, 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.

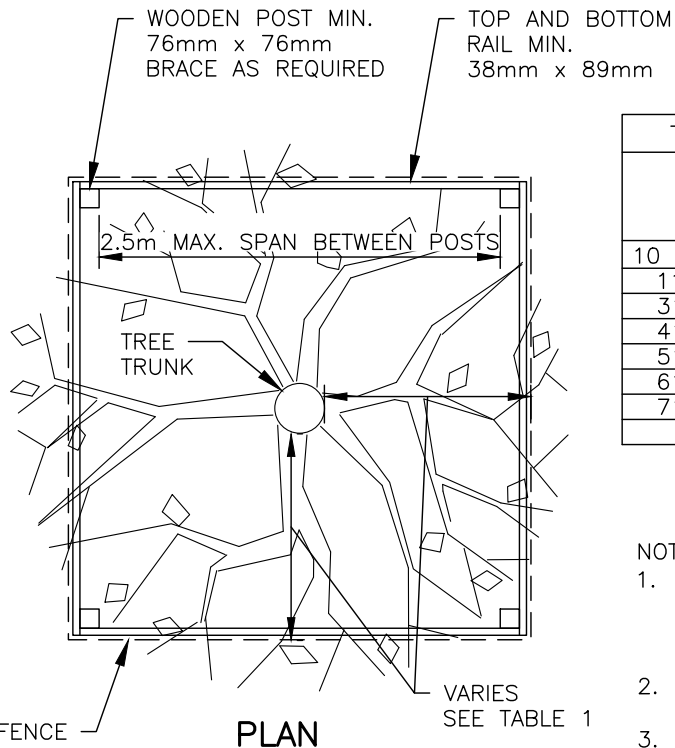
Thank you.

Hayden Hopgood

Cell: (902) 300-2602

## Appendix M – HRM Tree Detail

---



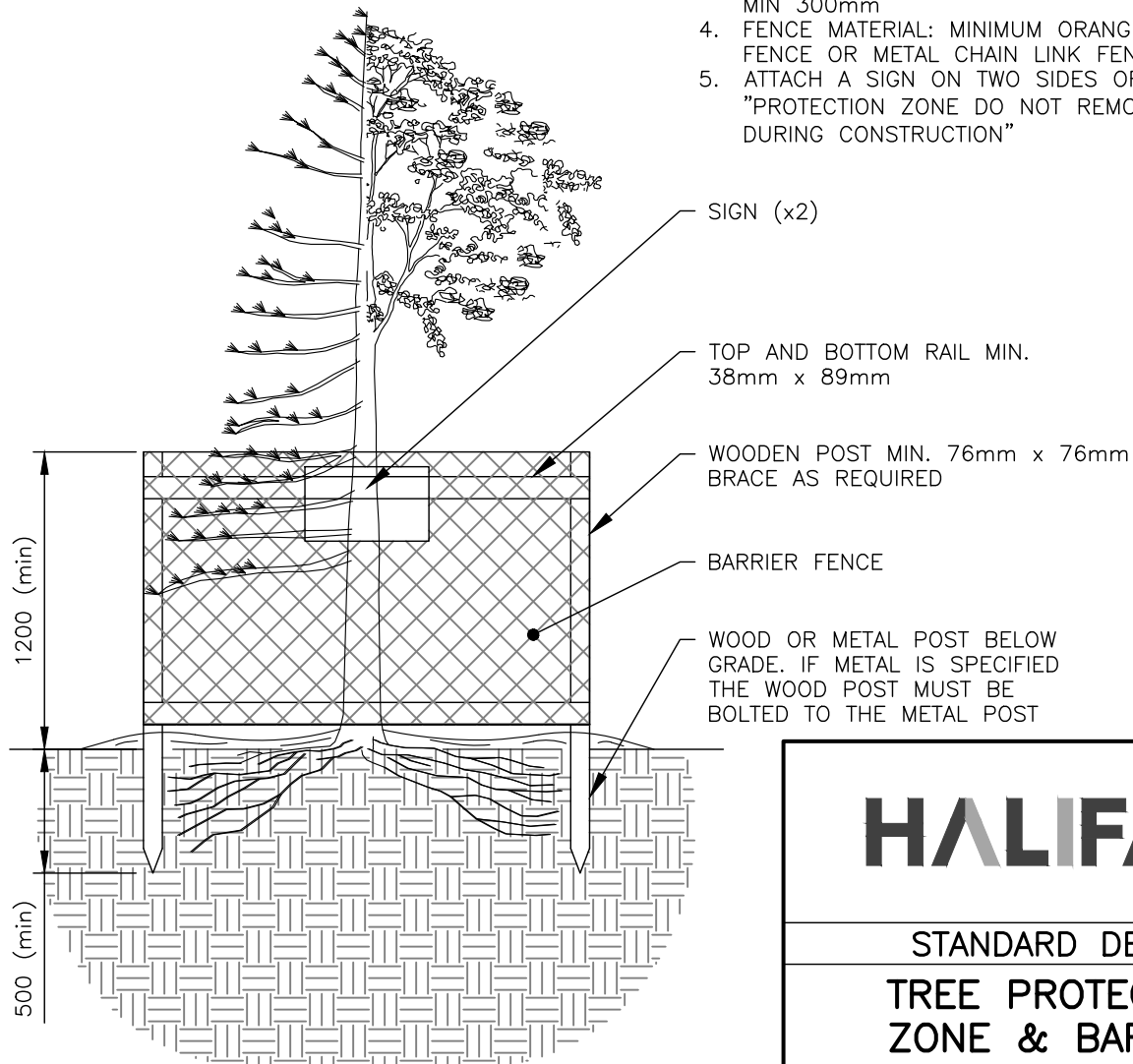
**PLAN**

**TABLE 1**

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



**PROFILE**

**HALIFAX**

STANDARD DETAIL

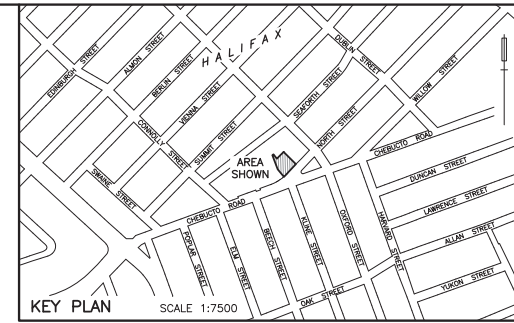
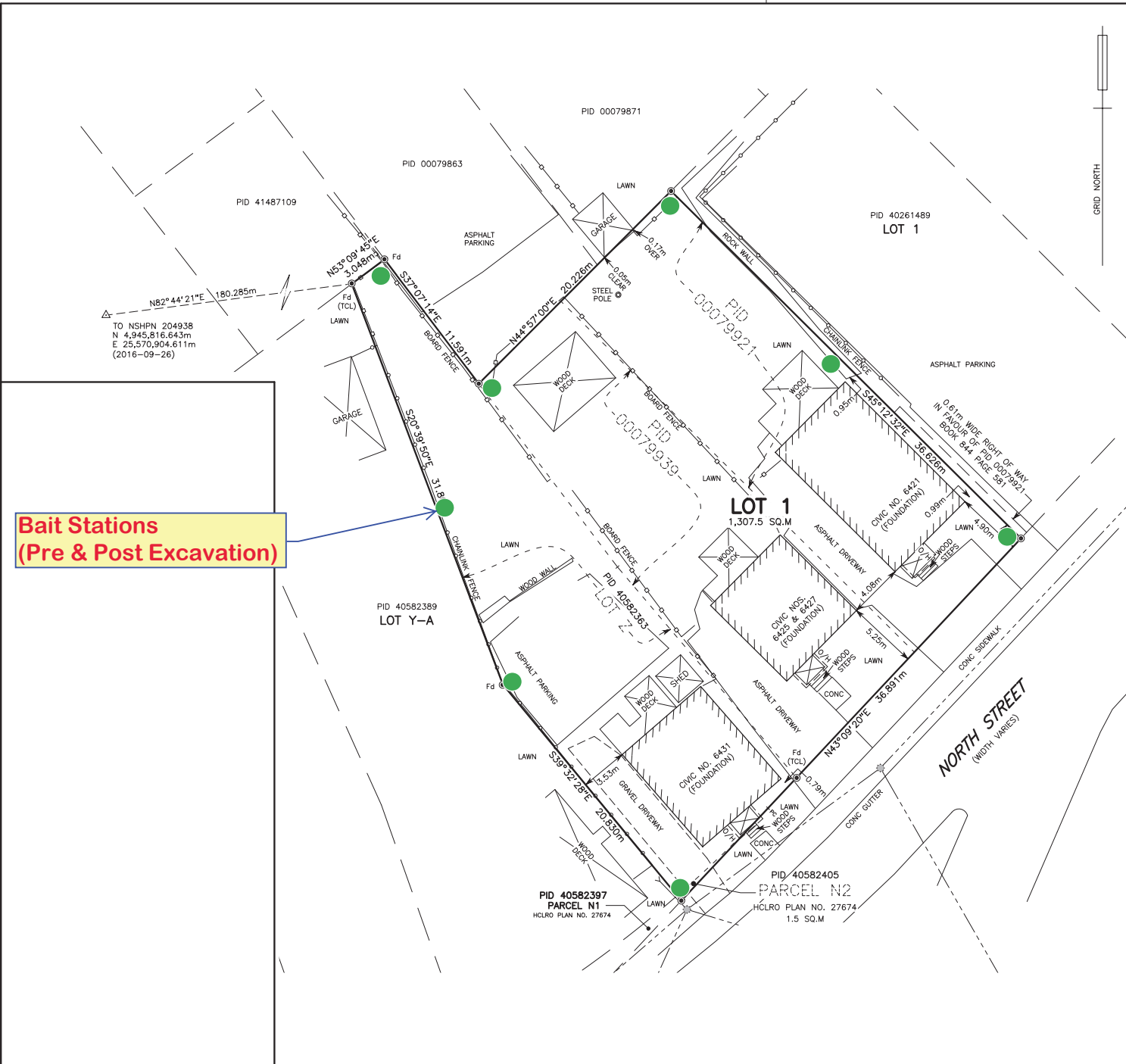
**TREE PROTECTION ZONE & BARRIER**

|        |      |           |                            |
|--------|------|-----------|----------------------------|
| DATE:  | 2021 | REFERENCE | APPROVED                   |
| SCALE: | NTS  |           | FIG No.:<br><b>HRM 140</b> |

## Appendix N – Rodent Control Plan

---





**LEGEND**

- △ NSHPN . . . . . NOVA SCOTIA HIGH PRECISION NETWORK MONUMENT
- . . . . . SURVEY MARKER SET
- ⊕ . . . . . UTILITY POLE & ANCHOR
- HCLRO . . . . . HALIFAX COUNTY LAND REGISTRATION OFFICE
- PID . . . . . PARCEL IDENTIFICATION NUMBER
- Fd . . . . . FOUND
- A, R . . . . . ARC LENGTH, RADIUS
- PC . . . . . POINT OF CURVATURE
- CONC. . . . . CONCRETE
- O/H. . . . . OVERHANG
- SQ.M . . . . . SQUARE METERS

**Bait Stations  
(Pre & Post Excavation)**

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

**Protecta®**  
**EVO®** **AMBUSH™**  
PATENT PENDING



**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)**

#### FIRST AID

##### HAVE LABEL WITH YOU WHEN OBTAINING TREATMENT ADVICE

###### IF SWALLOWED:

- Call a poison control center, doctor, or 1-877-854-2494, or 1-800-858-7378\*\* immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.

###### IF ON SKIN OR CLOTHING:

- Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes.
- Call a poison control center or doctor for treatment advice.

###### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15–20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center, doctor, or 1-877-854-2494 immediately for treatment advice.

\*\* Also call this number for information on health concerns and pesticide incidents.

#### NOTE TO PHYSICIAN

If swallowed or absorbed through the skin, this material may reduce the clotting ability of the blood and cause bleeding. If ingested, administer Vitamin K<sub>1</sub> intramuscularly or orally. Repeat as necessary based on monitoring of prothrombin times.

#### TREATMENT FOR PET POISONING

If animal eats bait, call veterinarian at once.

#### NOTE TO VETERINARIAN

**Anticoagulant Bromadiolone:** For animals ingesting bait and/or showing poisoning signs (bleeding or elevated prothrombin times), give Vitamin K<sub>1</sub>. If needed, check prothrombin times every 3 days until values return to normal (up to 30 days). In severe cases, blood transfusions may be needed.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**READ THIS LABEL:** Read this entire label and follow all use directions and use precautions. Use only for sites, pests, and application methods described on this label.

**IMPORTANT:** Do not expose children, pets, or nontarget animals to rodenticides. To help to prevent exposure:

1. Store unused product out of reach of children and pets.
2. Apply bait in locations out of reach of children, pets, domestic animals and nontarget wildlife, or in tamper-resistant bait stations. These stations must be resistant to destruction by dogs and by children under six years of age, and must be used in a manner that prevents such children from reaching into bait compartments and obtaining bait. If bait can be shaken from bait stations when they are lifted, units must be secured or otherwise immobilized. Stronger bait stations are needed in areas open to hoofed livestock, raccoons, bears, or other potentially destructive animals, or in areas prone to vandalism.
3. Dispose of product container and unused, spoiled, or unconsumed bait as specified on this label.

**Bait stations are mandatory for outdoor, above-ground use. Tamper-resistant bait stations must be used wherever children, pets, non-target mammals, or birds may have access to the bait placement location.**

**USE RESTRICTIONS:** This product may only be used to control the following rodent pests in and around man-made structures: House mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), Roof rat (*Rattus rattus*), Cotton mouse (*Peromyscus gossypinus*), Cotton rat\* (*Sigmodon hispidus*), Deer mouse (*Peromyscus maniculatus*), Eastern harvest mouse\* (*Reithrodontomys humuli*), Golden mouse\* (*Ochrotomys nuttalli*), Polynesian rat\* (*Rattus exulans*), Meadow vole\* (*Microtus pennsylvanicus*), White-footed mouse (*Peromyscus leucopus*), White-throated woodrat\* (*Neotoma albigula*), Southern plains woodrat\* (*Neotoma micropus*), and Mexican woodrat\* (*Neotoma mexicana*). This product must be used in and within 100 feet of man-made structures constructed in a manner so as to be vulnerable to commensal rodent invasions and/or to harboring or attracting rodent infestations. Examples of such structures include homes and other permanent or temporary residences, food processing facilities, industrial and commercial buildings, trash receptacles, agricultural and public buildings, transport vehicles (ships, trains, aircraft), docks and port or terminal buildings and related structures around and associated with these sites. Fence and perimeter baiting, beyond 100 feet from a structure as defined above, is prohibited. This product must not be applied directly to food or feed crops.

587CB-9

# CONTRAC®

## ALL-WEATHER BLOX™

### KILLS RATS, MICE, AND MEADOW VOLES\*

#### Kills Warfarin Resistant Norway Rats

Norway rats, roof rats, and house mice may consume a lethal dose in one night's feeding with first dead rodents appearing four or five days after feeding begins.

#### ACTIVE INGREDIENT:

Bromadiolone (CAS #28772-56-7): . . . . . 0.005%

OTHER INGREDIENTS: . . . . . 99.995%

†Contains Denatonium Benzoate TOTAL 100.000%

## KEEP OUT OF REACH OF CHILDREN CAUTION

See side panels for First Aid and additional precautionary statements.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

**Pesticide Disposal:** Wastes resulting from the use of this product may be placed in trash or delivered to an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. [Plastic:] Offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; or by incineration. In most states, burning is not allowed.

**WARRANTY:** To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

### NET WEIGHT: 18 lbs (8.2 kg)

EPA REG. NO. 12455-79

EPA EST. NO. 12455-WI-1

Manufactured by:

**Bell**  
LABORATORIES, INC.  
3699 Kinsman Blvd.  
Madison, WI 53704 U.S.A.  
www.bellabs.com  
**MADE IN USA**

#### DIRECTIONS FOR USE (Continued from other panel)

Burrow baiting with Contrac All-Weather Blox is prohibited.

Do not place near or inside ventilation duct openings. Do not contaminate water, food, feedstuffs, food or feed handling equipment, or milk or meat handling equipment or surfaces that come into direct contact with food. When used in USDA inspected facilities, this product must be applied in tamper-resistant bait stations. Do not broadcast bait. Do not use this product in sewers.

Do not sell this product in individual containers holding less than 16 pounds of bait.

**SELECTION OF TREATMENT AREAS:** Determine areas where rats, mice, or meadow voles\* will most likely find and consume the bait. Generally, these areas are along walls, by gnawed openings, in corners and concealed places, between floors and walls, or in locations where rats, mice, or meadow voles\*, or their signs have been seen. Protect bait from rain and snow. Remove as much alternative food as possible.

#### APPLICATION DIRECTIONS:

**RATS:** Place 3 to 16 bait blocks (at intervals of 15 to 30 feet) per placement in infested areas. Maintain an uninterrupted supply of fresh bait for at least 10 days or until signs of rat activity cease.

**MICE AND MEADOW VOLES\*:** Place 1 block per placement. Space placements at 8- to 12-foot intervals in infested areas. Two blocks may be needed at points of very high activity. Maintain an uninterrupted supply of fresh bait for at least 15 days or until signs of mouse or meadow vole\* activity cease.

**FOLLOW-UP:** Replace contaminated or spoiled bait immediately.

Wearing gloves, collect and dispose of all dead, exposed animals and leftover bait. To prevent reinfestation, limit sources of rodent food, water, and harborage as much as possible. If reinfestation does occur, repeat treatment. Where a continuous source of infestation is present, establish permanent bait stations and replenish as needed.

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed or absorbed through the skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing.

All handlers (including applicators) must wear: shoes plus socks, and waterproof gloves. Any person who retrieves carcasses or unused bait following application of this product must wear gloves.

#### User Safety Requirements

Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish, birds and other wildlife. Dogs and predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply this product directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff also may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

\*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.

Product Code: CB4051

090415/09-15







# DETEX<sup>®</sup> 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<sup>®</sup> 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 |
|---|-------------|-------------|
| <b>Inert and Non-Hazardous Ingredients</b><br>(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

|                   |            |             |             |
|-------------------|------------|-------------|-------------|
| <b>Components</b> | <b>NTP</b> | <b>IARC</b> | <b>OSHA</b> |
| 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.

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

---

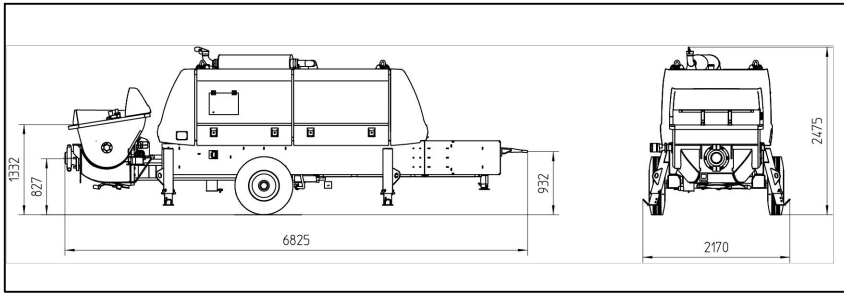




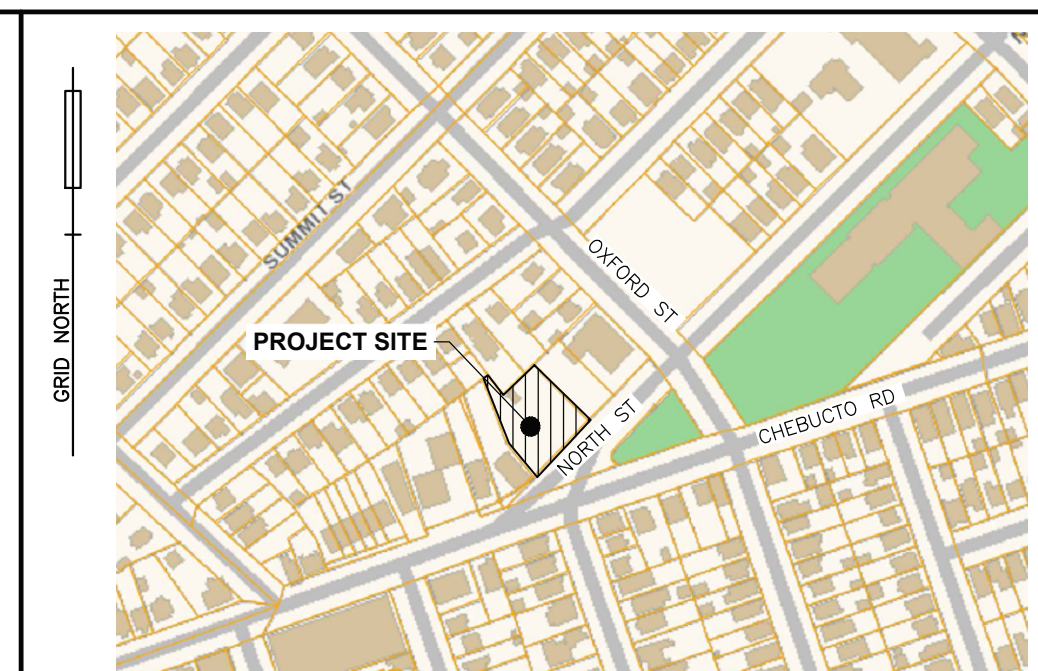
## Appendix P – Concrete Delivery Schematic

---





BSA 2109 HD



KEY PLAN

| EXISTING     |                                    | LEGEND       |                                    | PROPOSED     |                                    |
|--------------|------------------------------------|--------------|------------------------------------|--------------|------------------------------------|
| --- 25.0 --- | CONTOUR LINE                       | --- 25.0 --- | CONTOUR LINE                       | --- 25.0 --- | CONTOUR LINE                       |
| ⊙/⊙BF        | CURB STOP/GATE/BUTTERFLY VALVE     | ⊙/⊙BF        | CURB STOP/GATE/BUTTERFLY VALVE     | ⊙/⊙BF        | CURB STOP/GATE/BUTTERFLY VALVE     |
| ⊙            | FIRE HYDRANT                       | ⊙            | FIRE HYDRANT                       | ⊙            | FIRE HYDRANT                       |
| ⊠            | CONCRETE THRUST BLOCK              | ⊠            | CONCRETE THRUST BLOCK              | ⊠            | CONCRETE THRUST BLOCK              |
| ⊠            | SIAMESE CONNECTION                 | ⊠            | SIAMESE CONNECTION                 | ⊠            | SIAMESE CONNECTION                 |
| ⊠            | CATCH BASIN/PIT                    | ⊠            | CATCH BASIN/PIT                    | ⊠            | CATCH BASIN/PIT                    |
| ⊠            | CULVERT                            | ⊠            | CULVERT                            | ⊠            | CULVERT                            |
| ⊠            | ROCK LINING/DAM                    | ⊠            | ROCK LINING/DAM                    | ⊠            | ROCK LINING/DAM                    |
| ⊠            | ROCK WALL/RETAINING WALL           | ⊠            | ROCK WALL/RETAINING WALL           | ⊠            | ROCK WALL/RETAINING WALL           |
| ⊠            | POWER POLE & ANCHOR/LIGHT STANDARD | ⊠            | POWER POLE & ANCHOR/LIGHT STANDARD | ⊠            | POWER POLE & ANCHOR/LIGHT STANDARD |
| ⊠            | TREE                               | ⊠            | TREE                               | ⊠            | TREE                               |
| ⊠            | STREET SIGN/PARKING METER          | ⊠            | STREET SIGN/PARKING METER          | ⊠            | STREET SIGN/PARKING METER          |
| ⊠            | ELEVATION/GRADE                    | ⊠            | ELEVATION/GRADE                    | ⊠            | ELEVATION/GRADE                    |
| ⊠            | TEST PIT                           | ⊠            | TEST PIT                           | ⊠            | TEST PIT                           |
| ⊠            | DRAINAGE/SWALE FLOW DIRECTION      | ⊠            | DRAINAGE/SWALE FLOW DIRECTION      | ⊠            | DRAINAGE/SWALE FLOW DIRECTION      |
| ⊠            | WATER MAIN/SERVICE                 | ⊠            | WATER MAIN/SERVICE                 | ⊠            | WATER MAIN/SERVICE                 |
| ⊠            | SANITARY MANHOLE & PIPE            | ⊠            | SANITARY MANHOLE & PIPE            | ⊠            | SANITARY MANHOLE & PIPE            |
| ⊠            | STORM MANHOLE & PIPE               | ⊠            | STORM MANHOLE & PIPE               | ⊠            | STORM MANHOLE & PIPE               |
| ⊠            | COMBINED PIPE                      | ⊠            | COMBINED PIPE                      | ⊠            | COMBINED PIPE                      |
| ⊠            | GAS LINE                           | ⊠            | GAS LINE                           | ⊠            | GAS LINE                           |
| ⊠            | 100YR. FLOOD LIMIT                 | ⊠            | 100YR. FLOOD LIMIT                 | ⊠            | 100YR. FLOOD LIMIT                 |
| ⊠            | GUARD RAIL                         | ⊠            | GUARD RAIL                         | ⊠            | GUARD RAIL                         |
| ⊠            | UNDERGROUND CONDUIT                | ⊠            | UNDERGROUND CONDUIT                | ⊠            | UNDERGROUND CONDUIT                |
| ⊠            | OVERHEAD WIRES                     | ⊠            | OVERHEAD WIRES                     | ⊠            | OVERHEAD WIRES                     |
| ⊠            | PROPERTY LINE/BOUNDARY             | ⊠            | PROPERTY LINE/BOUNDARY             | ⊠            | PROPERTY LINE/BOUNDARY             |
| ⊠            | FENCE                              | ⊠            | FENCE                              | ⊠            | FENCE                              |
| ⊠            | BUILDING                           | ⊠            | BUILDING                           | ⊠            | BUILDING                           |
| ⊠            | TOP OF SLOPE                       | ⊠            | TOP OF SLOPE                       | ⊠            | TOP OF SLOPE                       |
| ⊠            | TOE OF SLOPE                       | ⊠            | TOE OF SLOPE                       | ⊠            | TOE OF SLOPE                       |
| ⊠            | TREELINE                           | ⊠            | TREELINE                           | ⊠            | TREELINE                           |
| ⊠            | LIMITS OF DISTURBANCE              | ⊠            | LIMITS OF DISTURBANCE              | ⊠            | LIMITS OF DISTURBANCE              |
| ⊠            | TACTILE PEDESTRIAN PLATES          | ⊠            | TACTILE PEDESTRIAN PLATES          | ⊠            | TACTILE PEDESTRIAN PLATES          |
| ⊠            | PROJECT SAFETY SIGNAGE             | ⊠            | PROJECT SAFETY SIGNAGE             | ⊠            | PROJECT SAFETY SIGNAGE             |
| ⊠            | ORANGE SAWHORSE BARRICADE          | ⊠            | ORANGE SAWHORSE BARRICADE          | ⊠            | ORANGE SAWHORSE BARRICADE          |

**NOTES**

- THIS PLAN IS IN METRIC.
- EXISTING CONDITIONS WITH APPROXIMATE LOCATIONS ARE BASED ON GOOGLE AERIAL IMAGERY AS SITE HAS NOT BEEN FIELD SURVEYED; DIMENSIONS MAY VARY AND SHALL BE CONFIRMED BY CONTRACTOR BEFORE PROCEEDING WITH CONSTRUCTION.

| No. | YY/MM/DD | Revision                             | Description | Appr'd |
|-----|----------|--------------------------------------|-------------|--------|
| 4   | 24/12/11 | REVISED AS PER CLIENT COMMENTS       |             |        |
| 3   | 24/08/26 | REVISED AS PER HRM COMMENTS          |             |        |
| 2   | 24/05/16 | REVISED AS PER HRM & CLIENT COMMENTS |             |        |
| 1   | 24/02/05 | REVISED AS PER HRM COMMENTS          |             |        |
| 0   | 22/09/27 | ISSUED FOR REVIEW                    |             |        |

REGISTERED PROFESSIONAL ENGINEER

G.K. MacLean

8978

PROVINCE OF NOVA SCOTIA

**SDMM**

Servant, Dunbrack, McKenzie & MacDonald Ltd.

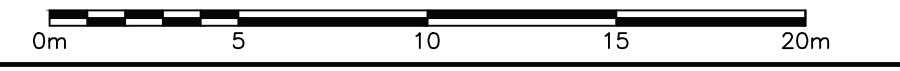
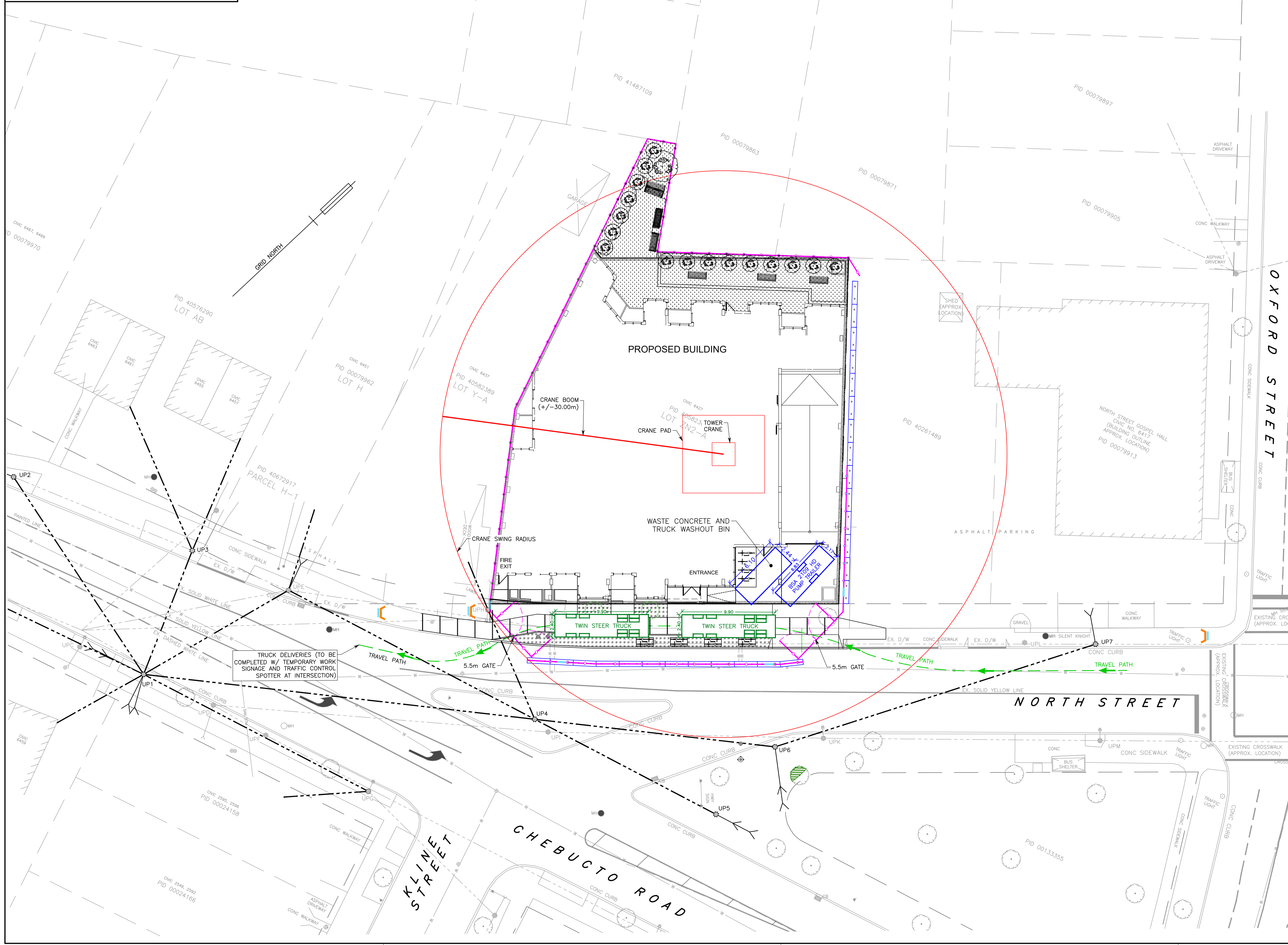
NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS

36 CLAND CRESCENT  
BAYERS LAKE BUSINESS PARK  
HALIFAX, NS B3S 1G6

PHONE: (902) 455-1537  
FAX: (902) 455-8478  
WEB: www.sdmm.ns.ca

**PROPOSED BUILDING**  
6421, 6425-6427, 6431 NORTH STREET  
HALIFAX, NOVA SCOTIA

| CONCRETE DELIVERY SCHEMATIC |             |                           |
|-----------------------------|-------------|---------------------------|
| Date                        | Drawn       | Project No.               |
| SEPTEMBER 27, 2022          | D. ANDERSON | FILE NO. 1-1-403 (373333) |
| Scale                       | Engineer    | Plan No.                  |
| 1:200                       | G. MACLEAN  |                           |
| Reference                   | Approved    | Drawing Name              |
|                             | G. MACLEAN  |                           |
| Surveyed                    | Sheet       |                           |
| SDMM                        |             | R2                        |

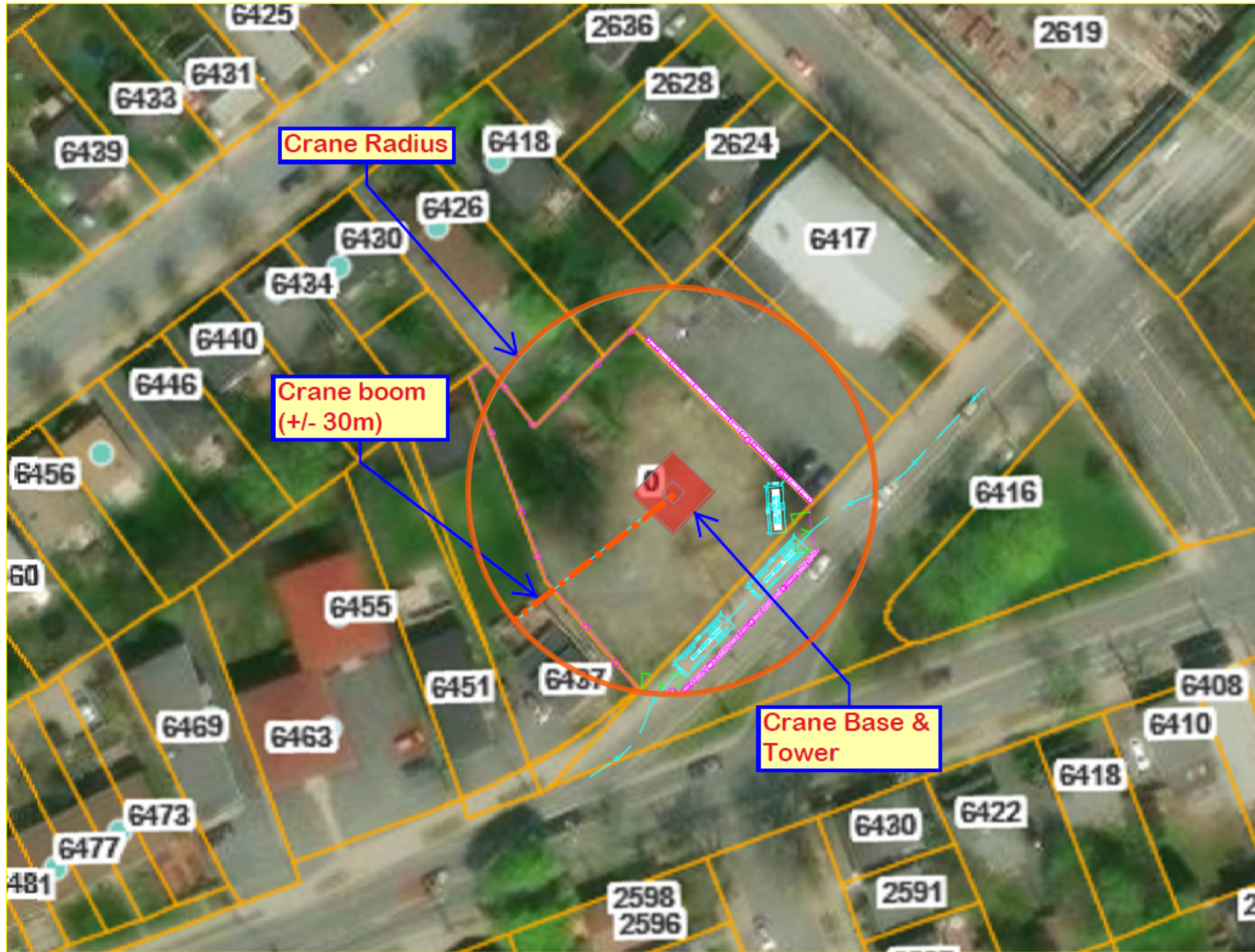




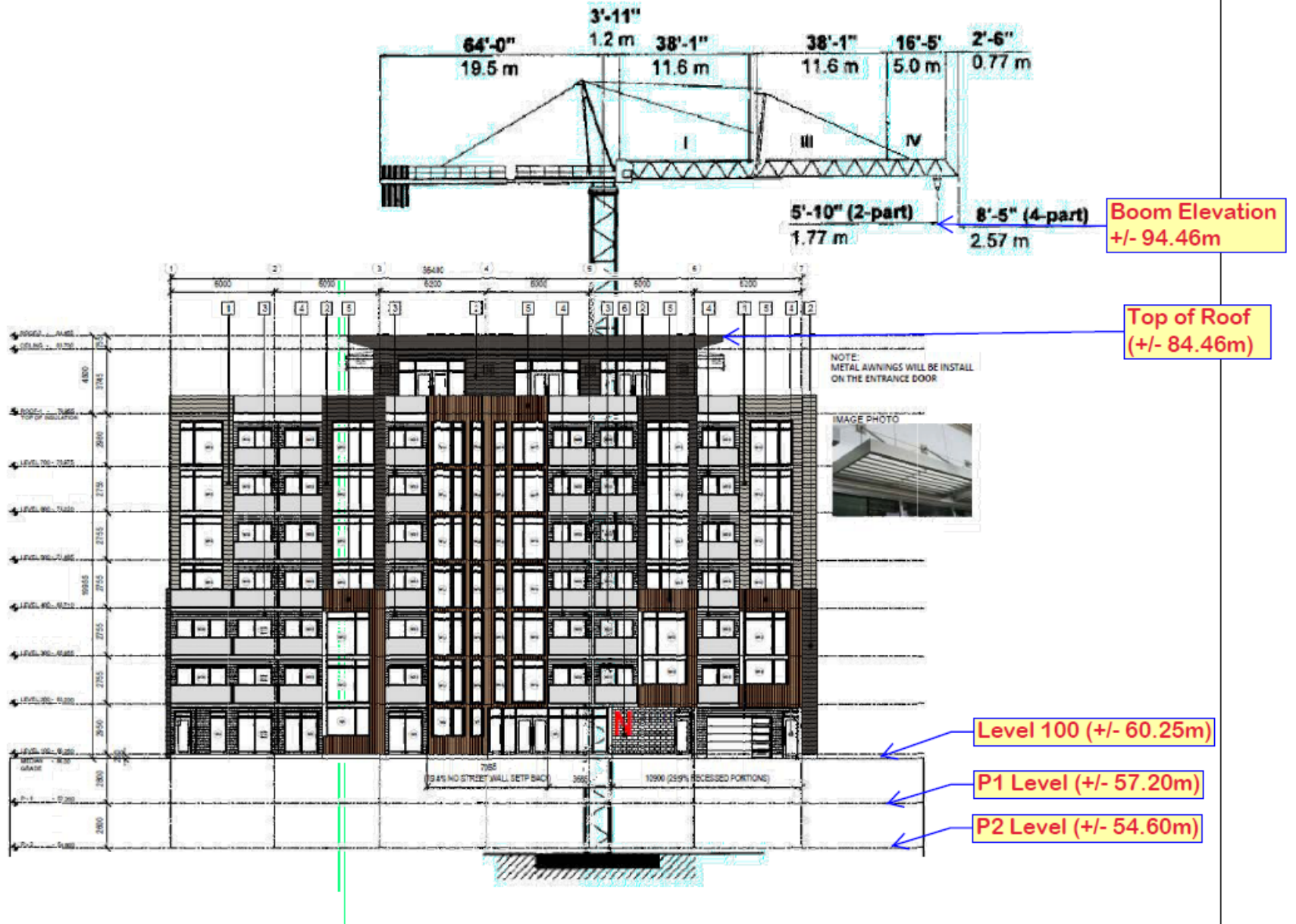
## Appendix Q – Crane Information

---

Crane Operations



# Crane Operations



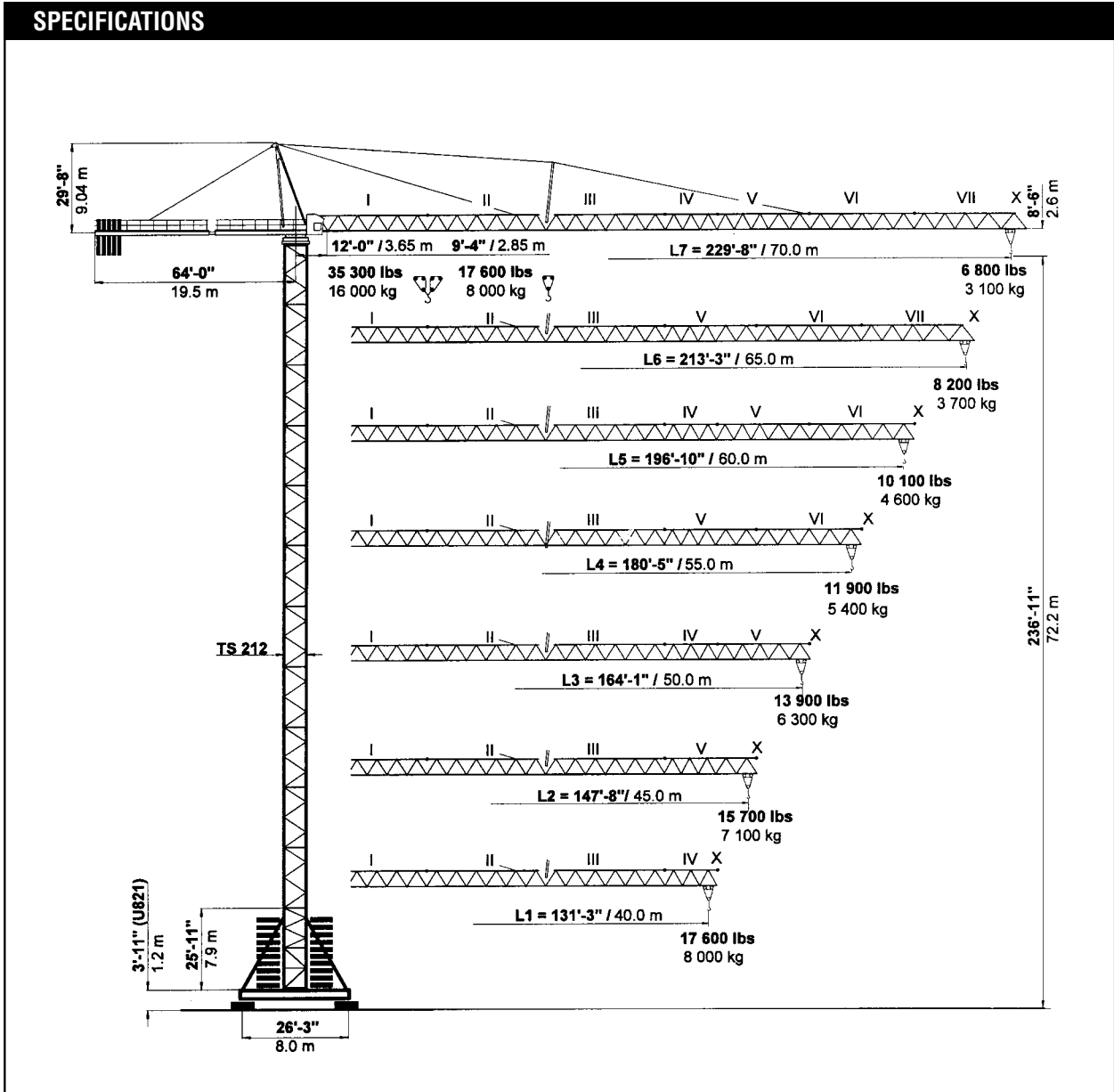




# PEINER SK 315

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

## SPECIFICATIONS



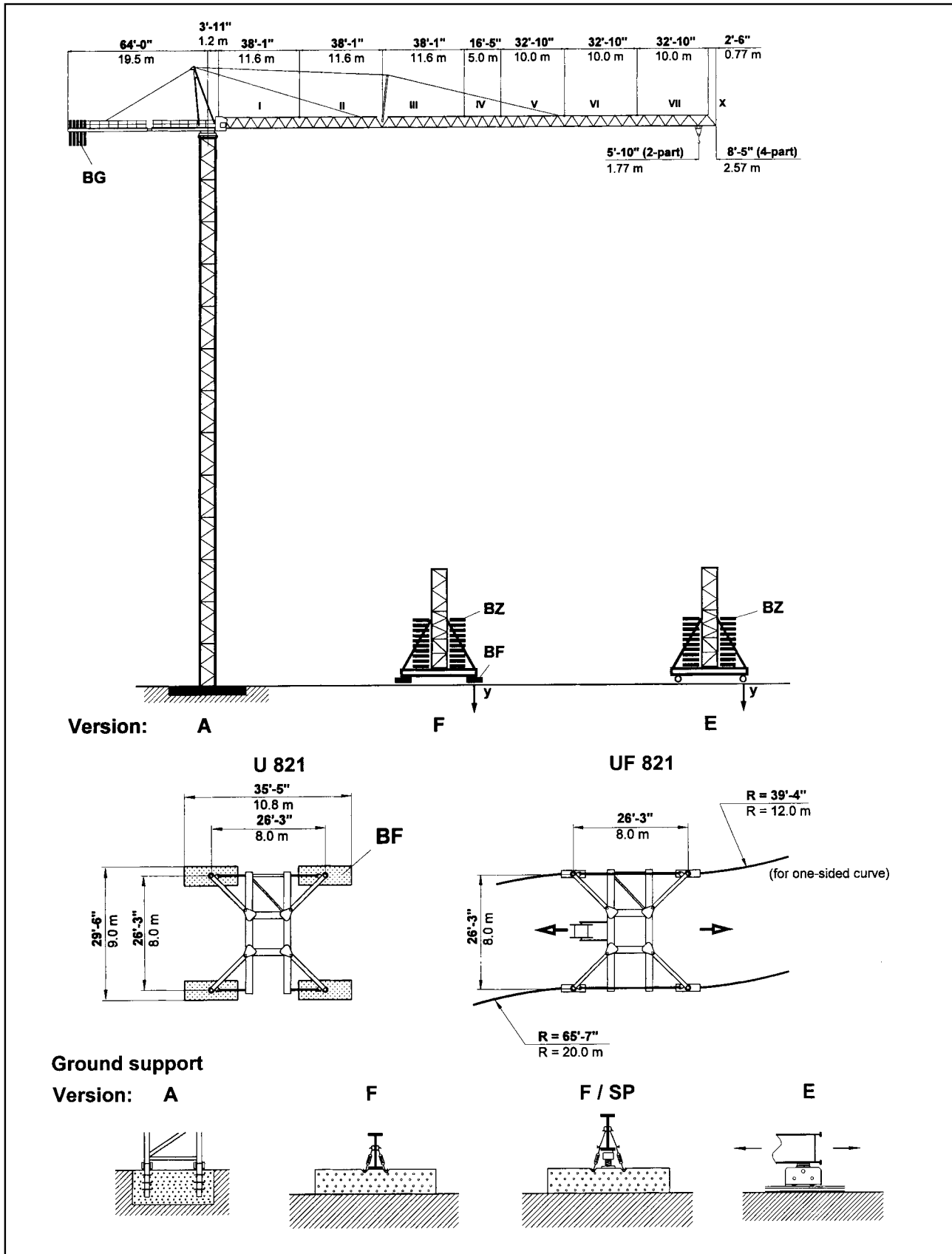
simple, available and  
cost effective™

Machines shown may have optional equipment.



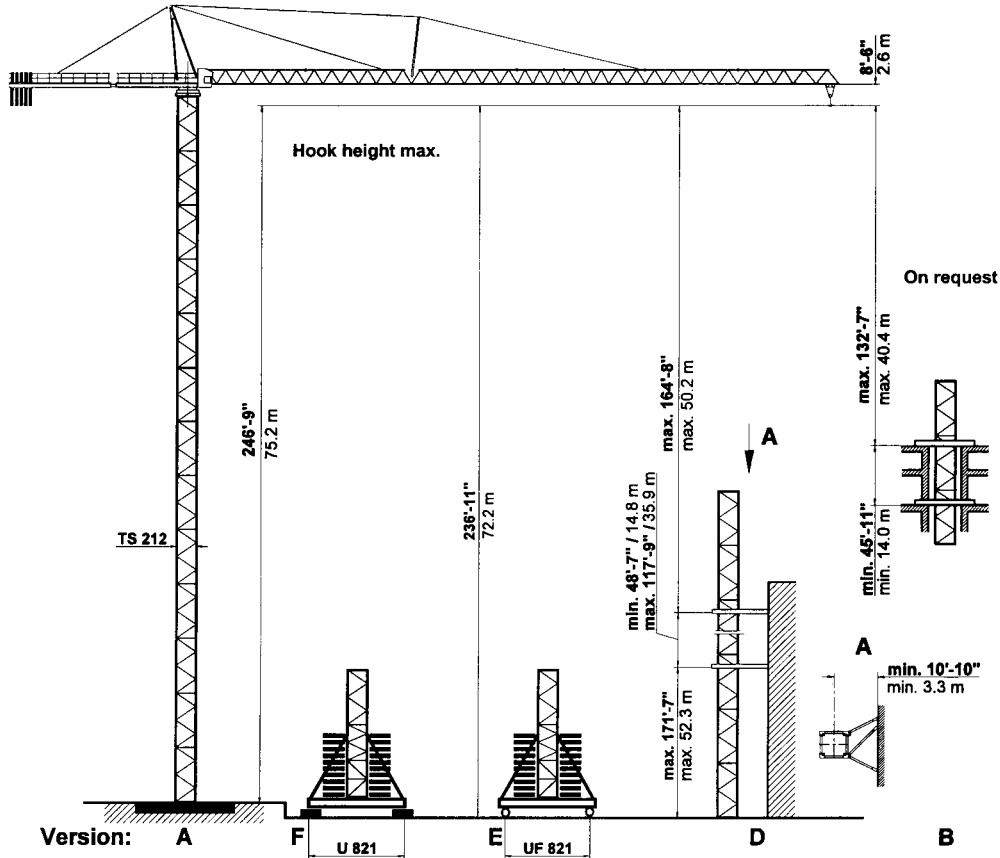
# PEINER SK 315

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      |  |            |  |
|---|---------------------|------------------------------|----------------------|-------------|---|----------------|--|------------|--|
|   | HH                  | Tower                        | HH                   | BZ + BF     | in service                              | out of service | BZ   | in service | out of service                               |
| TS 212.1  | ft<br>m             | TSV 212<br>TS 212.1          | ft<br>m              | kips / t    | kips / kN                               | kips / kN      | kips / t                                     | kips / kN  | kips / kN                                    |
| 13 x TS 212.1   | 246'-9"***<br>75.2* |                              |                      |             |   |                |  |            |  |
| 12 x TS 212.1   | 227'-4"***<br>69.3* | 1 x TSV 212<br>11 x TS 212.1 | 236'-11"***<br>72.2* | 212.0<br>96 | 204<br>909                              | 279<br>1243    | 198.0<br>90                                  | 212<br>942 | 282<br>1253                                  |
| 11 x TS 212.1   | 208'-0"***<br>63.4* | 1 x TSV 212<br>10 x TS 212.1 | 217'-6"***<br>66.3*  | 168.0<br>76 | 186<br>826                              | 240<br>1066    | 154.0<br>70                                  | 192<br>856 | 242<br>1075                                  |
| 10 x TS 212.1   | 188'-8"***<br>57.5* | 1 x TSV 212<br>9 x TS 212.1  | 198'-2"***<br>60.4   | 146.0<br>66 | 173<br>770                              | 203<br>901     | 132.0<br>60                                  | 179<br>797 | 204<br>909                                   |
| 9 x TS 212.1  | 169'-4"***<br>51.6  | 1 x TSV 212<br>8 x TS 212.1  | 178'-10"***<br>54.5  | 124.0<br>56 | 161<br>715                              | 169<br>751     | 88.0<br>40                                   | 161<br>715 | 169<br>754                                   |
| 8 x TS 212.1  | 149'-11"***<br>45.7 | 1 x TSV 212<br>7 x TS 212.1  | 159'-5"***<br>48.6   | 101.0<br>46 | 149<br>661                              | 145<br>645     | 88.0<br>40                                   | 154<br>683 | 170<br>654                                   |
| 7 x TS 212.1  | 130'-7"***<br>39.8  | 1 x TSV 212<br>6 x TS 212.1  | 140'-1"***<br>42.7   | 101.0<br>46 | 142<br>633                              | 128<br>569     | 66.0<br>30                                   | 141<br>629 | 124<br>553                                   |
| 6 x TS 212.1  | 111'-3"***<br>33.9  | 1 x TSV 212<br>5 x TS 212.1  | 120'-9"***<br>36.8   | 101.0<br>46 | 136<br>607                              | 112<br>499     | 66.0<br>30                                   | 135<br>600 | 108<br>482                                   |
| 5 x TS 212.1  | 91'-10"***<br>28.0  | 1 x TSV 212<br>4 x TS 212.1  | 101'-5"***<br>30.9   | 101.0<br>46 | 131<br>582                              | 98<br>435      | 66.0<br>30                                   | 129<br>573 | 94<br>418                                    |
| 4 x TS 212.1  | 72'-6"***<br>22.1   | 1 x TSV 212<br>3 x TS 212.1  | 82'-0"***<br>25.0    | 101.0<br>46 | 126<br>559                              | 85<br>376      | 66.0<br>30                                   | 123<br>548 | 81<br>359                                    |
| 3 x TS 212.1  | 53'-2"***<br>16.2   | 1 x TSV 212<br>2 x TS 212.1  | 62'-8"***<br>19.1    | 101.0<br>46 | 120<br>536                              | 80<br>356      | 66.0<br>30                                   | 118<br>523 | 75<br>335                                    |
| 2 x TS 212.1  | 33'-9"***<br>10.3   | 1 x TSV 212<br>1 x TS 212.1  | 43'-4"***<br>13.2    | 101.0<br>46 | 116<br>515                              | 80<br>356      | 66.0<br>30                                   | 112<br>500 | 75<br>335                                    |
| <b>Foundation</b><br>25'-7" x 25'-7" x 5'-7"<br>7.8 x 7.8 x 1.7 m |                     |                              |                      |             | <b>Stationary base</b><br>U 821         |                | <b>Travelling base</b><br>UF 821             |            |  |
| <b>Anchor stools</b><br>4 x FF 212                                |                     |                              |                      |             | <b>BF</b><br>4 x 8.82 kips<br>4 x 4.0 t |                | <b>BZ</b><br>block 11.02 kips<br>Block 5.0 t |            | <b>Bogle</b><br><b>Curve</b><br><b>F 500</b> |

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     | Max. capacity max.<br>17,600 lbs<br>8.0 t | Radius – ft./m<br>Capacity – lbs./mt   |               |               |                |               |               |               |               |               |                |               |               |                |               |               |               |                          |             |  |  |
|---------|---|--|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------------|-------------|--|--|
|         |   | 2-Part Line  max. 17,600 lbs<br>max. 8.0 t  |               |               |                |               |               |               |               |               |                |               |               |                |               |               |               |                          |             |  |  |
| ft<br>m |   | 75'-6"<br>23   | 82'-0"<br>25  | 98'-5"<br>30  | 114'-10"<br>35 | 131'-3"<br>40 | 141'-1"<br>43 | 147'-8"<br>45 | 157'-6"<br>48 | 164'-1"<br>50 | 173'-11"<br>53 | 180'-5"<br>55 | 190'-3"<br>58 | 196'-10"<br>60 | 206'-8"<br>63 | 213'-3"<br>65 | 223'-1"<br>68 | 229'-8"<br>70            |             |  |  |
| L7      | 229'-8"<br>70.0                           | 9'-4" - 96'-9"<br>2.85 - 29.5 m  | 17600<br>8.0  | 17600<br>8.0  | 17400<br>7.9   | 14800<br>6.7  | 12800<br>5.8  | 11900<br>5.4  | 11200<br>5.1  | 10600<br>4.8  | 10100<br>4.6   | 9500<br>4.3   | 9000<br>4.1   | 8600<br>3.9    | 8200<br>3.7   | 7700<br>3.5   | 7500<br>3.4   | 7100<br>3.2              | 6800<br>3.1 |  |  |
| L6      | 213'-3"<br>65.0                           | 9'-4" - 105'-0"<br>2.85 - 32.0 m   | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 16100<br>7.3  | 13900<br>6.3  | 13000<br>5.9  | 12300<br>5.6  | 11500<br>5.2  | 11000<br>5.0   | 10400<br>4.7  | 9900<br>4.5   | 9300<br>4.2    | 8800<br>4.0   | 8600<br>3.9   | 8200<br>3.7   |                          |             |  |  |
| L5      | 196'-10"<br>60.0                          | 9'-4" - 117'-9"<br>2.85 - 35.9 m   | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 17600<br>8.0  | 15700<br>7.1  | 14600<br>6.6  | 13900<br>6.3  | 13000<br>5.9  | 12300<br>5.6   | 11700<br>5.3  | 11200<br>5.1  | 10600<br>4.8   | 10100<br>4.6  |               |               |                          |             |  |  |
| L4      | 180'-5"<br>55.0                           | 9'-4" - 124'-8"<br>2.85 - 38.0 m   | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 17600<br>8.0  | 16800<br>7.6  | 15400<br>7.0  | 14800<br>6.7  | 13900<br>6.3  | 13200<br>6.0   | 12300<br>5.6  | 11900<br>5.4  |                |               |               |               |                          |             |  |  |
| L3      | 164'-1"<br>50.0                           | 9'-4" - 130'-11"<br>2.85 - 39.9 m  | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 17600<br>8.0  | 17600<br>8.0  | 16300<br>7.4  | 15400<br>7.0  | 14600<br>6.6  | 13900<br>6.3   |               |               |                |               |               |               |                          |             |  |  |
| L2      | 147'-8"<br>45.0                           | 9'-4" - 131'-11"<br>2.85 - 40.2 m  | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 17600<br>8.0  | 17600<br>8.0  | 16500<br>7.5  | 15700<br>7.1  |               |                |               |               |                |               |               |               |                          |             |  |  |
| L1      | 131'-3"<br>40.0                           | 9'-4" - 131'-3"<br>2.85 - 40.0 m   | 17600<br>8.0  | 17600<br>8.0  | 17600<br>8.0   | 17600<br>8.0  |               |               |               |               |                |               |               |                |               |               |               |                          |             |  |  |
| ft<br>m |   | 4-Part Line  max. 35,300 lbs<br>max. 16.0 t |               |               |                |               |               |               |               |               |                |               |               |                |               |               |               | Radius - 2'-7" (- 0.8 m) |             |  |  |
| L7      | 227'-0"<br>69.2                           | 12'-0" - 48'-7"<br>3.65 - 14.8 m   | 21800<br>9.9  | 19600<br>8.9  | 16100<br>7.3   | 13200<br>6.0  | 11200<br>5.1  | 10400<br>4.7  | 9700<br>4.4   | 9000<br>4.1   | 8600<br>3.9    | 7900<br>3.6   | 7500<br>3.4   | 7100<br>3.2    | 6600<br>3.0   | 6200<br>2.8   | 6000<br>2.7   | 5500<br>2.5              | 5300<br>2.4 |  |  |
| L6      | 210'-8"<br>64.2                           | 12'-0" - 52'-2"<br>3.65 - 15.9 m   | 23800<br>10.8 | 21600<br>9.8  | 17400<br>7.9   | 14600<br>6.6  | 12600<br>5.7  | 11500<br>5.2  | 10800<br>4.9  | 9900<br>4.5   | 9500<br>4.3    | 8800<br>4.0   | 8400<br>3.8   | 7700<br>3.5    | 7500<br>3.4   | 6800<br>3.1   | 6600<br>3.0   |                          |             |  |  |
| L5      | 194'-3"<br>59.2                           | 12'-0" - 57'-9"<br>3.65 - 17.6 m   | 26900<br>12.2 | 24500<br>11.1 | 19800<br>9.0   | 16800<br>7.6  | 14300<br>6.5  | 13000<br>5.9  | 12300<br>5.6  | 11500<br>5.2  | 10800<br>4.9   | 10100<br>4.6  | 9700<br>4.4   | 9000<br>4.1    | 8600<br>3.9   |               |               |                          |             |  |  |
| L4      | 177'-10"<br>54.2                          | 12'-0" - 61'-0"<br>3.65 - 18.6 m   | 28700<br>13.0 | 26000<br>11.8 | 21200<br>9.6   | 17900<br>8.1  | 15200<br>6.9  | 14100<br>6.4  | 13200<br>6.0  | 12300<br>5.6  | 11700<br>5.3   | 10800<br>4.9  | 10400<br>4.7  |                |               |               |               |                          |             |  |  |
| L3      | 161'-5"<br>49.2                           | 12'-0" - 63'-8"<br>3.65 - 19.4 m   | 30200<br>13.7 | 27300<br>12.4 | 22300<br>10.1  | 18700<br>8.5  | 16100<br>7.3  | 14800<br>6.7  | 14100<br>6.4  | 12800<br>5.8  | 12300<br>5.6   |               |               |                |               |               |               |                          |             |  |  |
| L2      | 145'-0"<br>44.2                           | 12'-0" - 64'-0"<br>3.65 - 19.5 m   | 30400<br>13.8 | 27600<br>12.5 | 22500<br>10.2  | 19000<br>8.6  | 16300<br>7.4  | 15000<br>6.8  | 14100<br>6.4  |               |                |               |               |                |               |               |               |                          |             |  |  |
| L1      | 128'-7"<br>39.2                           | 12'-0" - 66'-3"<br>3.65 - 20.2 m   | 31700<br>14.4 | 28700<br>13.0 | 23600<br>10.7  | 19800<br>9.0  | 17000<br>7.7  |               |               |               |                |               |               |                |               |               |               |                          |             |  |  |

**Speeds**

|   |  |  |   |  |  |  |
|---|--|--|---|--|--|--|
| FU 8-160/4  |   | v = 0 → ~290 fpm (88 m / min.)   | 10.2 HP<br>7.5 kW   |  |  |  |
| SR 10-190/3   |   | v = 0 → ~96 fpm (30 m / min.)  | 2 x 16.3 HP<br>2 x 12.0 kW  |  |  |  |
| K WB 120/4  |   | v = 0 → 0.9 rpm (min <sup>-1</sup> )   | 2 x 11.4 HP<br>2 x 8.4 kW   |  |  |  |
|  <b>HK max. = 705' (215 m)      6 - layers</b> |  |  | <b>480 V / 60 Hz / 3 ph</b>   |  |  |  |
| <b>Type</b><br><b>SR WB 66-80/4F</b><br><br><b>[108 HP]</b><br><b>[79 kW]</b>   | <br><br><br> |  2-Part Line<br>→ 444 fpm<br>134 m/min<br>→ 276 fpm<br>84 m/min<br>→ 180 fpm<br>54 m/min<br>→ 108 fpm<br>34 m/min |  4-Part Line<br>→ 222 fpm<br>67 m/min<br>→ 138 fpm<br>42 m/min<br>→ 90 fpm<br>27 m/min<br>→ 54 fpm<br>17 m/min | 5 500 lbs<br>2 500 kg<br><br>9 300 lbs<br>4 200 kg<br><br>13 900 lbs<br>6 300 kg<br><br>17 600 lbs<br>8 000 kg | 11 000 lbs<br>5 000 kg<br><br>18 600 lbs<br>8 400 kg<br><br>27 800 lbs<br>12 600 kg<br><br>35 300 lbs<br>16 000 kg | Total motor output ~140 HP<br>without SR 10-190/3 ~105 kW<br><br>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<br>13 600 kg | 32 200 lbs<br>14 600 kg | 36 600 lbs<br>16 600 kg | 39 150 lbs<br>17 750 kg | 43 550 lbs<br>19 750 kg | 41 350 lbs<br>18 750 kg | 45 750 lbs<br>20 750 kg |
|               | [lbs] | 3 x 6 950<br>1 x 9 150  | 2 x 6 950<br>2 x 9 150  | 4 x 9 150               | 3 x 6 950<br>2 x 9 150  | 1 x 6 950<br>4 x 9 150  | 2 x 6 950<br>3 x 9 150  | 5 x 9 150               |
|               | [t]   | 3 x 3.15<br>1 x 4.15    | 2 x 3.15<br>2 x 4.15    | 4 x 4.15                | 3 x 3.15<br>2 x 4.15    | 1 x 3.15<br>4 x 4.15    | 2 x 3.15<br>3 x 4.15    | 5 x 4.15                |
|               |       |                         |                         |                         |                         |                         |                         |                         |



**PEINER SK 315 Dimensions and transport weights**

See operating manual for mounting weights

|    | Designation                                   |                     | Dimensions (ft / m) |      |       | Weight  | Volume   |
|----|---|---------------------|---------------------|------|-------|---------|----------|
|    |   |                     | l                   | b    | h     | lbs / t | ft³ / m³ |
| 1  | Jib<br>Section III                            |                     | 39.01               | 4.99 | 7.09  | 4 200   | 1 386    |
|    |   |                     | 11.94               | 1.52 | 2.16  | 1.92    | 39.2     |
| 2  | Jib<br>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 III                                   |                     | 38.65               | 4.99 | 6.17  | 4 320   | 1 190    |
|    | Section IV                                    |                     | 11.78               | 1.52 | 1.88  | 1.96    | 33.7     |
|    | Section V                                     |                     | 19.19               | 4.99 | 5.41  | 1 760   | 519      |
|    | Section VI                                    |                     | 5.85                | 1.52 | 1.65  | 0.80    | 14.7     |
|    | Section VII                                   |                     | 35.34               | 4.99 | 5.45  | 3 090   | 961      |
|    | Jib tip X                                     |                     | 10.77               | 1.52 | 1.66  | 1.40    | 27.2     |
|    |   |                     | 36.03               | 4.99 | 5.48  | 2 470   | 985      |
|    |   |                     | 10.98               | 1.52 | 1.67  | 1.12    | 27.9     |
| 3  | Turntable with slewing ring support and cabin |                     | 36.35               | 7.64 | 7.81  | 25 350  | 2 169    |
|    |   |                     | 11.08               | 2.33 | 2.38  | 11.50   | 61.4     |
|    | Turntable with slewing ring support           |                     | 31.99               | 7.64 | 7.81  | 24 030  | 1 911    |
|    |   |                     | 9.75                | 2.33 | 2.38  | 10.90   | 54.1     |
|    | Cabin with support and railing                |                     | 10.17               | 4.92 | 7.25  | 1 320   | 364      |
|    |   |                     | 3.10                | 1.50 | 2.21  | 0.60    | 10.3     |
| 4  | Counter jib with hoist winch                  |                     | 38.13               | 5.91 | 6.00  | 14 550  | 1 353    |
|    |   |                     | 11.62               | 1.80 | 1.83  | 6.60    | 38.3     |
|    | Hoist winch                                   | 66 WB               | 7.51                | 5.45 | 3.28  | 5 400   | 134      |
|    |   |                     | 2.29                | 1.66 | 1.00  | 2.45    | 8.4      |
| 5  | Counterweight                                 | BG                  | 3.94                | 1.64 | 9.32  | 6 950   | 60       |
|    |   |                     | 1.20                | 0.50 | 2.84  | 3.15    | 1.4      |
|    |   |                     | 3.94                | 1.64 | 12.11 | 9 150   | 78       |
|    |   |                     | 1.20                | 0.50 | 3.69  | 4.15    | 1.7      |
| 6  | Tower section                                 | TS 212.1            | 19.52               | 7.78 | 8.01  | 9 130   | 1 216    |
|    |   |                     | 5.95                | 2.37 | 2.45  | 4.14    | 34.4     |
|    |   | TSV 212 with struts | 31.17               | 9.84 | 10.00 | 20 330  | 3 067    |
|    |   |                     | 9.50                | 3.00 | 3.05  | 9.22    | 86.9     |
|    | TSK 212                                       | 6.63                | 7.87                | 9.84 | 6 170 | 513     |          |
|    |   |                     | 2.02                | 2.40 | 3.00  | 2.80    | 14.5     |
| 7  | Travelling base, folded                       | UF 821              | 41.01               | 9.74 | 7.05  | 35 050  | 2 816    |
|    |   |                     | 12.5                | 2.97 | 2.15  | 15.90   | 79.8     |
| 8  | Stationary base, folded                       | U 821               | 34.55               | 9.06 | 2.79  | 17 130  | 873      |
|    |   |                     | 10.53               | 2.76 | 0.85  | 7.77    | 24.7     |
| 9  | Central ballast block                         | BZ                  | 11.48               | 4.92 | 2.20  | 11 020  | 124      |
|    |   |                     | 3.50                | 1.50 | 0.67  | 5.00    | 3.5      |
| 10 | Foundation pad                                | BF                  | 9.19                | 3.28 | 1.87  | 8 820   | 57       |
|    |   |                     | 2.80                | 1.00 | 0.57  | 4.00    | 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.

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.

**Bigge Crane and Rigging Co.**

10700 Bigge Avenue  
San Leandro, CA 94577  
Phone: (888) 337-BIGGE or (510) 638-8100  
Fax: (510) 639-4053  
Email: towers@bigge.com  
Web site: www.biggetowercrane.com

 **TEREX TOWERS**

202 Raleigh Street  
Wilmington, NC 28412 USA  
(910) 395-8500 • FAX: (910) 395-8547  
E-mail: wilmington@terexlifting.com



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

