Bilby Apartments

5512 Bilby Street

Building Construction

Prepared by Geoff MacLean, P.Eng.

Job No. 36495

CONSTRUCTION MANAGEMENT PLAN

REVISION #	DATE	DESCRIPTION
2	APR 2023	TOWER CRANE ADDITION
1	APR 2022	REVISED AS PER HRM COMMENTS
0	DEC 2021	ISSUED FOR REVIEW

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Revisions Summary

Revision 1 – Sections; 1.1, 4.1, 4.2, 4.6, 5, 5.7, 5.8, 7.1, 7.3, & 8.5, Appendies A, B, C, D, P, Q

Revision 2 – Sections; 1.1, 2.1, 2.2, 4.1, 6.0, 9.1, 9.2, 9.3, Appendies A, B, P, Q and R

Table of Contents

Original Signed

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Prepared by

G.K. MacLean, P. Eng.

In consultation with the Landowner, contractor,

traffic control company and HRM.

Section 1: Introduction

1.1: Project Description and Objectives

Cornerstone Developments Ltd. is proposing to redevelop their consolidated land located on the corner of Bilby and Gottingen Street, Halifax. The consolidated lot formerly housed three buildings, that were previously demolished (civic 5512 Bilby Street, 2828-2830 and 2832 Gottingen Street). The planned development will include a new 40-unit 7 level residential building with a landscaped rooftop patio and 3 levels of underground parking with garage accessed from Bilby Street. This CMP has been prepared to address excavation, services and building construction.

Where the planned residential building is set at the street line and will have 3 levels of underground parking, deep excavations (+/- 30ft) are required for the project, for public safety during construction activities they are proposing to hoard off the sidewalk and portion of the street lane on both streets directly in front of the project for a truck layby. This encroachment area will be wide enough to accommodate a concrete truck and pump trailer, material deliveries, a material laydown area and additional room for workers. The proposed encroachment will close un-metered parking in front of the project on Gottingen Street, temporarily relocate the existing bus stop in front of civic 2816 Gottingen (Ultramar Corner Store) in coordination with HRM, temporarily alter the centerline of Gottingen Street. In conjunction with neighbouring development projects and HRM this portion of Bilby Street will be closed to pedestrians; the adjacent project will post signage detouring pedestrians to alternate routes while the Cornerstone project will install a new marked crosswalk at the corner of Macara Street and Gottingen Street complete with RRFP solar powered lighting and signage. The encroachment will maintain the current westbound one-way traffic on Bilby and two-way vehicular traffic on Gottingen Street. Only during service and tower crane work do we anticipate short term temporary lane closures. It is anticipated that tower crane assembly and disassembly will be stationed within the Bilby Street and will require a temporary street closure.

The project borders a commercial property that houses Ultramar Corner store along its southern property line, an active construction site to the west (Stackhouse Project) with CFB Halifax to the east across Gottingen Street and another construction site slated for redevelopment (Nrth Condos) across Bilby Street. 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
Owner	Cornerstone Developments Ltd	Michael Lawen	3175 Micmac Street, Halifax NS, B3L 3W3	(902) 880-2898 24 Hour Emergency Contact
Site Contractor	Cornerstone Developments Ltd	Michael Lawen	3175 Micmac Street, Halifax NS, B3L 3W3	(902) 880-2898
Traffic Control Company	Frontline Traffic Services	Phil Pruneau	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 B4A2Z2	(902) 835-2304

Section 2: Project Schedule and Logistics

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

2.1: Schedule

Project Phase	Start Date		End Date	Time Period
Rodent Control Program	Feb 15, 2022	-	May 15, 2022	3 months
Demolition	n/a	-	n/a	-
Site Excavation	May 1, 2022	-	May 1, 2023	12 Months
Substructure	May 1, 2023	-	Sep 31, 2023	5 Months
Superstructure	Sep 1, 2023	-	Dec 31, 2024	16 Months
Service Abandonments	Jul 1, 2023	-	Aug 1, 2023	1 weekend
Service installs	Jul 1, 2023	-	Aug 1, 2023	3 weekends
HRM Right of Way Flat Works	Jun 1, 2024	-	Jun 15, 2024	2 weeks
Site Flat Works	Jun 1, 2024	-	Jun 15, 2024	2 weeks

2.2: Key Dates

- Take-over encroachment — April 26, 2022
  - Sidewalk closure (Bilby & Gottingen Streets)
  - Street lane encroachment (Bilby & Gottingen Streets)
- Finish encroachment — Oct 1, 2024
- Duration of encroachment — 30 months
- Temporary lane/road closures:
  - Tower Crane Assembly — May 5-7, 2023 (weekend)
  - Gottingen Street Service abandonment — July 1, 2, 2023 (weekends only)
  - Bilby Street Service abandonments — July 8, 9, 2023 (weekends only)
  - Bilby Street Sewer service install — July 15, 16, 2023 (weekends only)
  - Bilby Street Water service install — July 22, 23, 2023 (weekends only)

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. – 9:30 p.m.
- Saturdays: 8:00 a.m. – 7:00 p.m.
- Sundays & Statutory Holidays: 9:00 a.m. – 7:00 p.m.
- Servicing Work: 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.

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 an altered centerline along Gottingen Street, throughout all phases of construction one-way traffic on Bilby will be maintained with minimum 4.0m wide travel lane maintained and two-way vehicular traffic on Gottingen with 3.5m wide travel lanes to accommodate local traffic. Only during service and crane work do we anticipate short term temporary lane closures being required. It is anticipated that tower crane assembly and disassembly will be stationed within Bilby Street and will require a temporary street closure. 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 the encroachment areas. We anticipate concrete deliveries entering the north gate and exiting the south gate on Gottingen and/or entering the east gate and exiting the west gate on Bilby 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

Two (2) un-metered parking spaces directly in front of the project will be occupied by the Gottingen Street encroachment. Un-metered on street public parking directly adjacent to the project is currently permitted for 15min along Gottingen while on Bilby un-metered on street parking is not permitted across the street from the project and directly in front of the project parking is currently closed due to the Stackhouse construction project. On street parking will be affected by this project on Gottingen Street. 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

We are proposing the bus stop directly adjacent to the proposed encroachment area in front of civic 2816 Gottingen (Ultramar Corner store) be relocated to its former location south of Almon Street in coordination with the HRM. We understand that HRM's signage department will facilitate relocation of the bus stop signage to the existing power pole south of the Almon Street intersection prior to the Gottingen Street encroachment. There are no bus stops on

Bilby Street in the vicinity of the project. Bus service traveling along Gottingen will not be affected by this project, with exception of the relocated bus stop.

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.

Throughout all phases of construction, the project will close the sidewalk in front of the project on Bilby Street and Gottingen Street. This is to ensure the limits of excavation, deliveries and construction overhead are kept a safe distance from pedestrians. Pedestrians will be encouraged to use the existing sidewalk opposite the site for access. In consultation with the neighbouring project and HRM a temporary marked crosswalk will be provided on the south corner of Macara and Gottingen Street intersection; the neighbouring project will provide detour signage wayfinding.

5.1: Pedestrian Protection

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

5.2: Pedestrian Safety

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

5.3: Pedestrian Traffic Notifications

Notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of pedestrian traffic impacts. 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 given the site opposite will be provide this signage.

5.8: Pedestrian Detour Wayfinding Signage
The need for pedestrian wayfinding signage directing pedestrians to adjacent businesses is not anticipated for this project given the site opposite will provide this signage.

Section 6: Encroachments & Disruptions

During construction, we are proposing the project encroachment area will incorporate the public sidewalk and portion of the street lane on both streets. This will move pedestrians to the opposite side of both streets. The encroachment on is planned to be delineated by interlocking F-type concrete barriers complete with rigid fencing with opaque coverings. This encroachment is to keep the public away from the excavation zone of influence as well as provide additional room for site workers and deliveries within the encroachment area. It is anticipated that tower crane assembly and disassembly will be stationed within Bilby Street and will require a temporary street closure.

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 demolition phase of this project is complete and addressed under separate CMP document.

6.2: Site Excavation
This includes deep excavation and removal of common site material. The development is planned to have three levels of underground parking below grade on both streets. If bedrock is found, the contractor will need to 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 31st 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 tree lawn, sidewalk, and curb and gutter. It is anticipated that sidewalks across the street will not be impacted by excavation or other construction activities. However, while efforts will be made to avoid damage, it is anticipated that additional portions of existing curbs, gutters, and sidewalks may become damaged during the construction process which would require repairs or replacement. Pending HRM's review prior to and after construction and subject to damage due to construction activities, the landowner acknowledges that items may require to be fully replaced rather than repaired. The landowner also acknowledges that any costs incurred to repair or replace this public infrastructure are the responsibility of the owner. For reinstatement timeline requirements, it is noted that asphalt, concrete curb and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 31st or prior to May 1 in which case permanent reinstatement will be completed by June 15 of the following construction season.

7.2: Protection of Trees

There are no street trees within the public right-of-way directly adjacent to the project site. It is noted that HRM street trees shall not be touched prior to approval and/or compensation agreements between the developer and HRM Urban Forestry are in place. Adjacent street trees are to be protected during construction in accordance with the HRM Tree Bylaw (T-600). Refer to HRM tree protection detail in the appendix.

7.3: Line Painting and Temporary Crosswalks

An altered centreline and temporary crosswalk are proposed for this project. Refer to the line painting plans in the appendix.

7.4: Street and Right-of-Way Cleaning

The portion of public street adjacent to the project will be cleaned daily of any debris from trucks and silt, dirt, or rock that migrates beyond the encroachments. A sweeper truck will be utilized as required. Rock pads will be installed and maintained at all site entrances behind the curb line to knock dirt free from truck tires with aim to reduce off tracking of site soils.

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

7.7: Noise, Dust and Emission Control

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

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

Breaking of rock may occur 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 building 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

The encroachment will be delineated using interlocking F-type concrete jersey barriers complete with rigid fencing secured to the jersey barrier with a total height (concrete barrier and fencing structure) being 1.8m or 6ft as per the noted administrative order. This fencing along both Bilby and Gottingen will be 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 non-vehicular traffic is present, the hoarding will be delineated by weighted modular 1.5m (5ft) high fencing or existing fencing where it is at least 1.5m tall. All fencing will have 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 landowner, 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 landowner will be responsible to remove snow and ice as required to ensure that emergency access is maintain 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. Gates are anticipated to be aligned to allow for traffic flow through the encroachment in line with street traffic on both streets.

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

8.4: Hoarding Aesthetics

The site hoarding will resemble that shown in the appendix; 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. On Gottingen Street the planned encroachment extends south near the driveway of the existing Ultramar Gas Station. Sight lines for this driveway must be reviewed by HRM engineering staff and developer on site prior to the installation of the opaque fence covering. It is anticipated that the last few fence panels will not be covered, refer to the encroachment plan in the appendix.

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 tower crane assembly and disassembly will be stationed within Bilby Street and will require a temporary street closure.

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. The tower crane is planned to be installed while the crane on the neighbouring Nrth Condos site is in use. The developer and crane operator has and will continue to coordinate their crane operations to minimize crane swing overlapping.

Concrete placement will be accommodated by use of the tower crane, concrete delivery trucks and pump trailer positioned in front of the project within the encroachment. Material delivery trucks will be stationed within the encroachments along both streets (see concrete delivery schematic within the appendix) and will be operated under the direct supervision of a licensed crane operator.

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 on Bilby and Gottingen Streets.

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

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 landowner 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 landowner, 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.

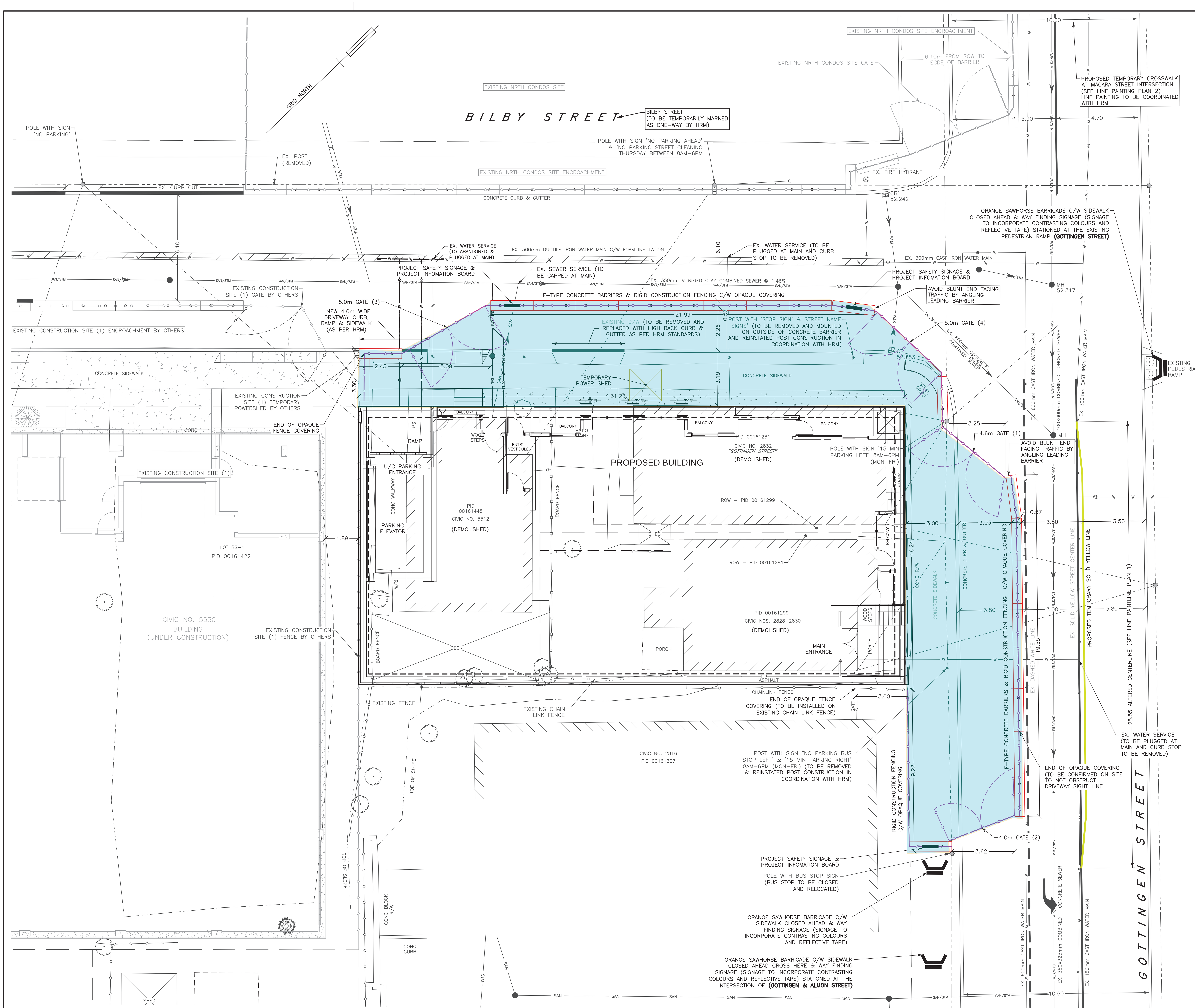
Regards,

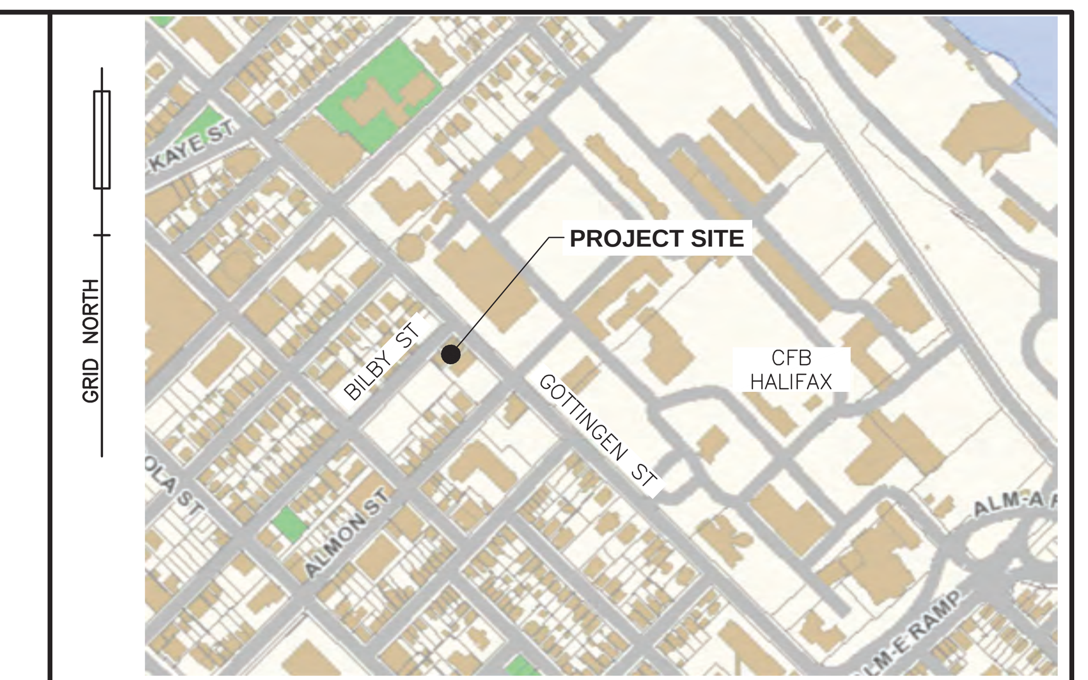
Servant, Dunbrack, McKenzie & MacDonald Ltd.

Geoff MacLean, P.Eng.
Project Engineer
Z:\SDMM\36000-36999\36450\36495\CMP\(Rev2)\5512 Bilby Street - CMP (Rev2) - 36495.docx

APPENDIX

Appendix A – Encroachment Plan





KEY PLAN

LEGEND

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

NOTES

1. THIS PLAN IS IN METRIC.

No.	YY/MM/DD	Revision Description	Appr'd
2	23/04/04	TOWER CRANE ADDITION	
1	22/04/08	REVISED AS PER HRM COMMENTS	
0	21/12/22	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 OLAND CRESCENT, BAYERS LAKE BUSINESS PARK, HALIFAX, NS B3S 1C6
PHONE: (902) 455-1537
FAX: (902) 455-8479
WEB: www.sdmm.ca

MULTI-UNIT RESIDENTIAL BUILDING
5512 BILBY STREET
HALIFAX, NOVA SCOTIA

ENCROACHMENT PLAN

Date: DECEMBER 22, 2021	Drawn: D. ANDERSON	Project No.: FILE NO. 1-1-508 (36495)
Scale: 1:100	Engineer: G. MACLEAN	Plan No.
Reference: 36641	Approved: G. MACLEAN	Drawing Name
Surveyed: SDMM	Sheet	R1

0m 1 2 4 6 8 10m

Appendix B – Traffic Control Plans TCP

Line Painting Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

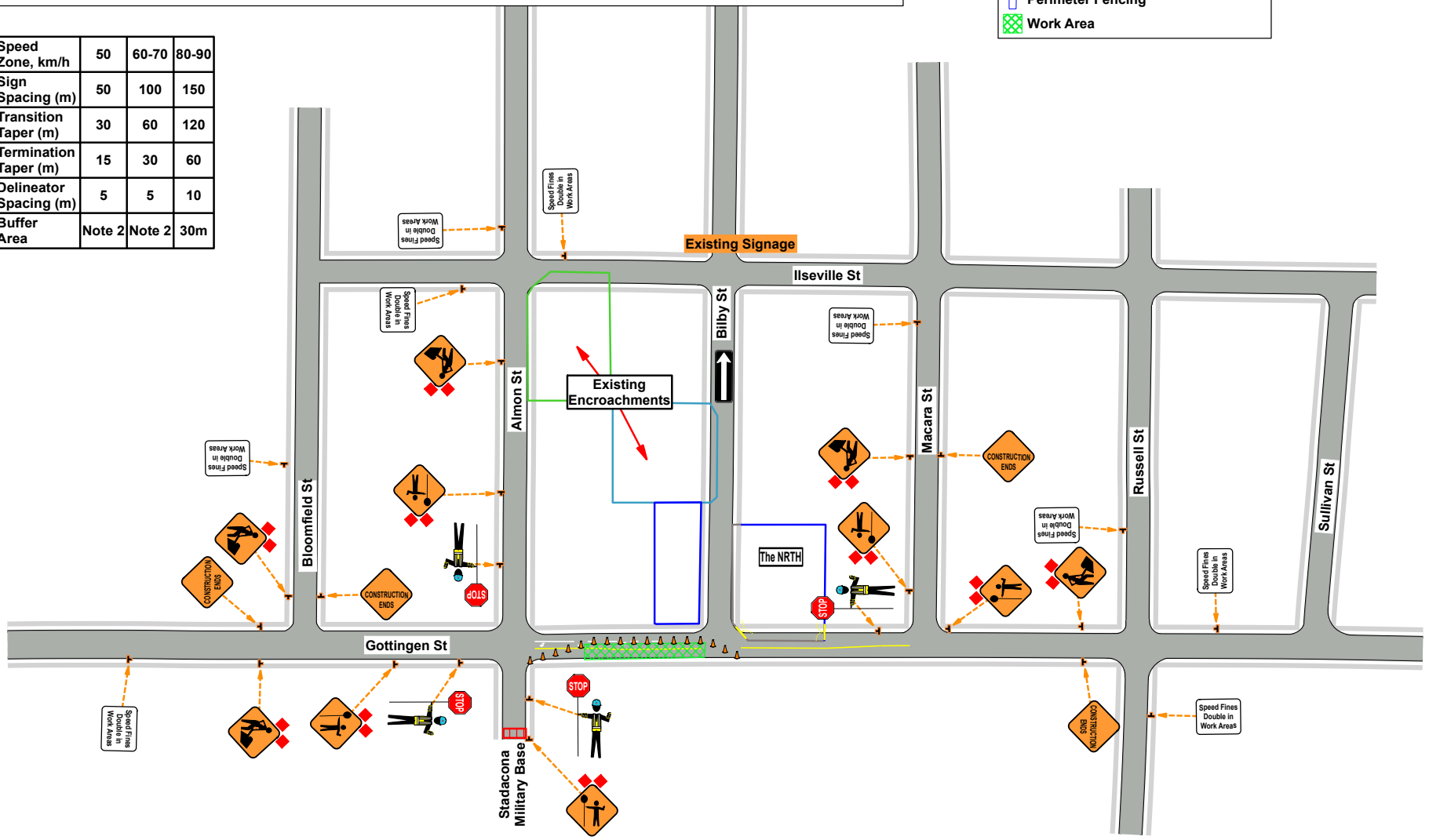
Comments:

Not to Scale
Line Painting Plan
Application Guide C112
No Pedestrian Impact
This Plan is for the alteration of the centreline.

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- Cone
- F-type Barrier with Opaque Hoarding
- Gate
- Gate House
- Perimeter Fencing
- Work Area



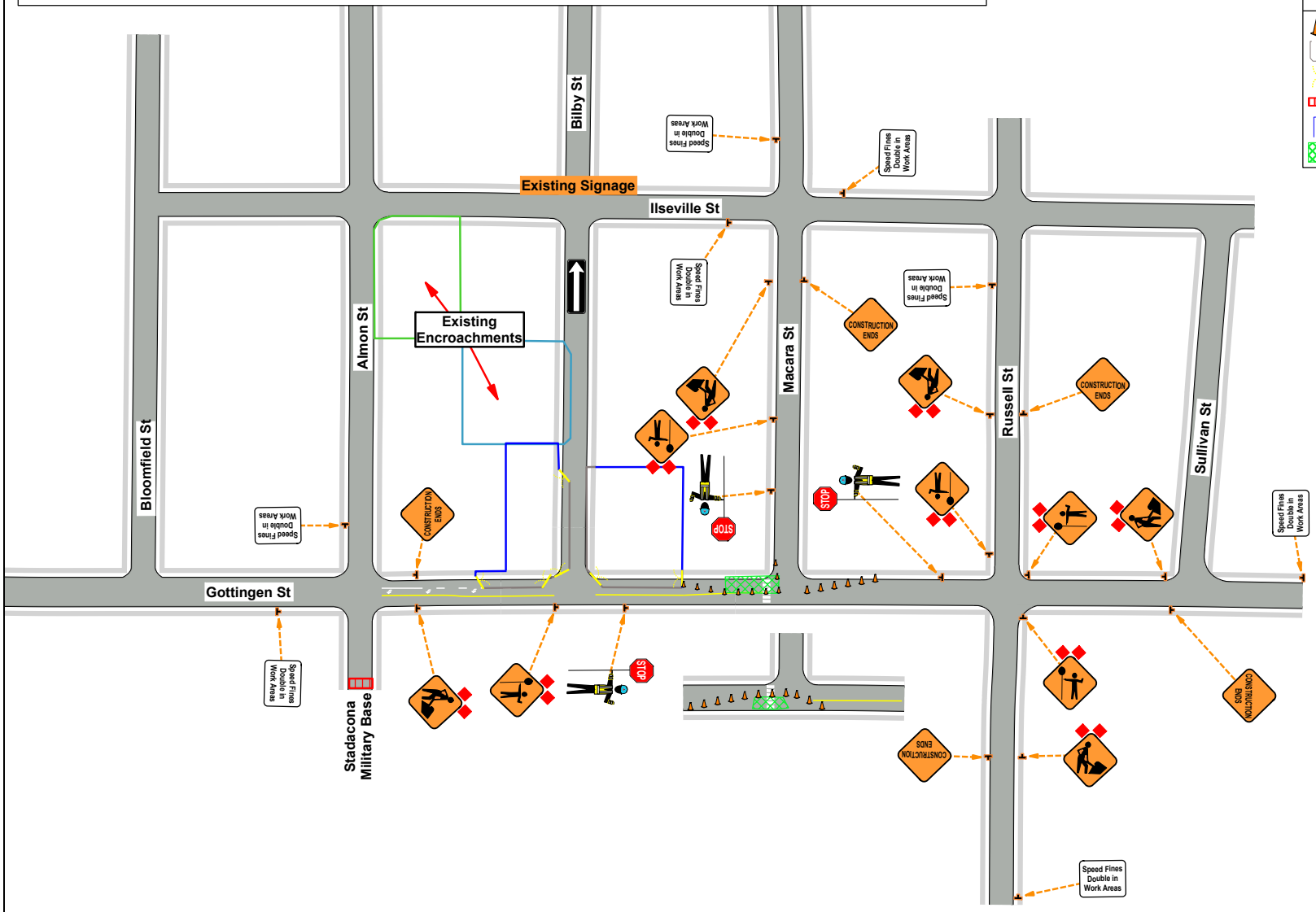
www.invarion.com

Crosswalk Installation and Removal Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

Comments:

Not to Scale
Crosswalk installation Plan.
Application Guide C112
No anticipated effect to existing sidewalk use



Legend

- Cone
- F-type Barrier with Opaque Hoarding
- Gate
- Gate House
- Perimeter Fencing
- Work Area

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Barrier Installation and Removal Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

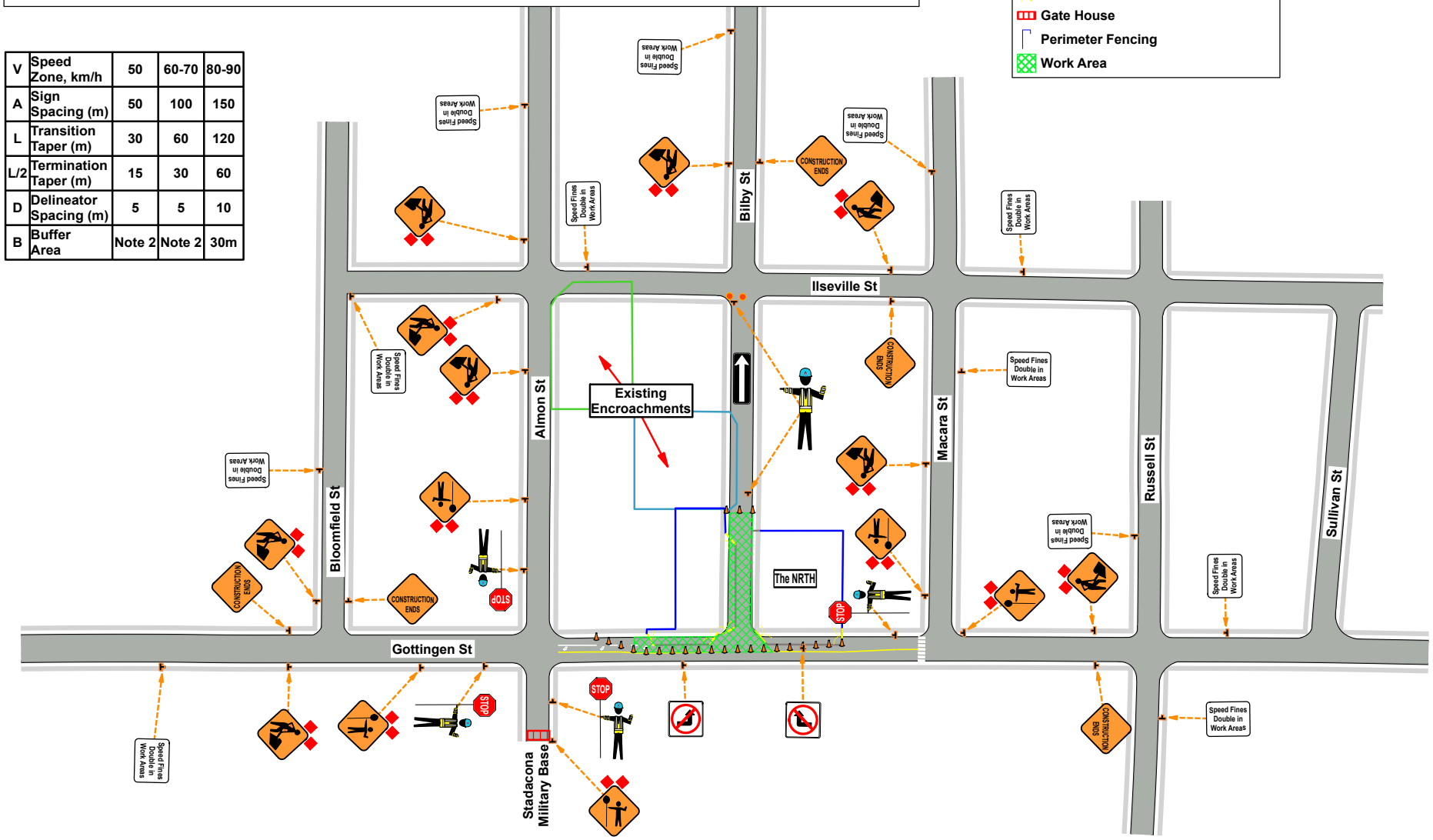
Comments:

Not to Scale
Barrier Installation and Removal Plan
Application Guide C101/C112
Traffic on Bilby will enter from Isleville end under guidance of dedicated spotters

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- Barrel
- Cone
- F-type Barrier with Opaque Hoarding
- Gate
- Gate House
- Perimeter Fencing
- Work Area

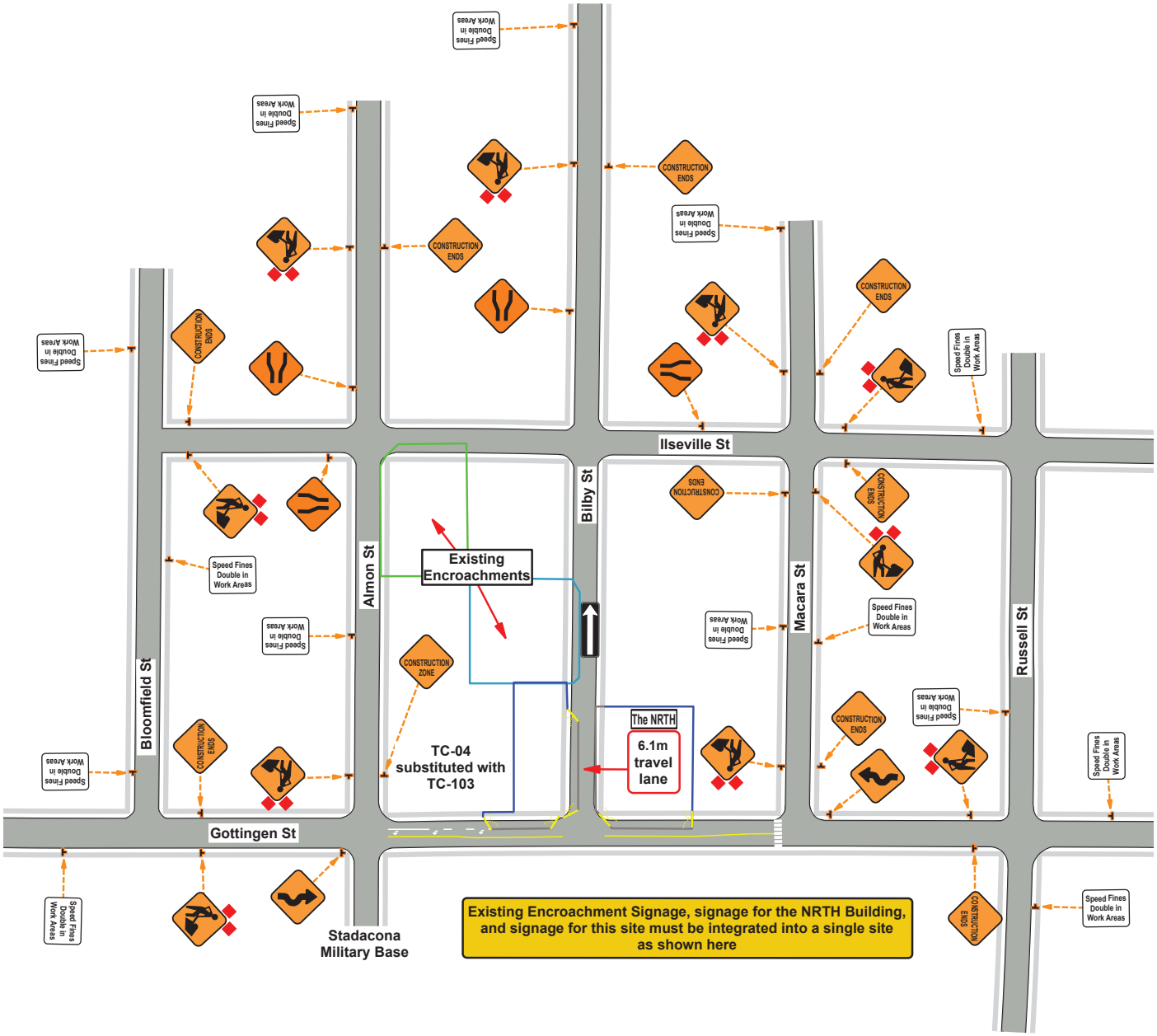


Encroachment Signage Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

Comments:

Not to Scale
Encroachment Signage Plan
Application Guide is C23/48 Blend
See Pedestrian Management Plan for sidewalk closure details



V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- F-type Barrier with Opaque Hoarding
- Gate
- Perimeter Fencing

Crane Installation and Removal Plan

Date: 2023-04-12 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

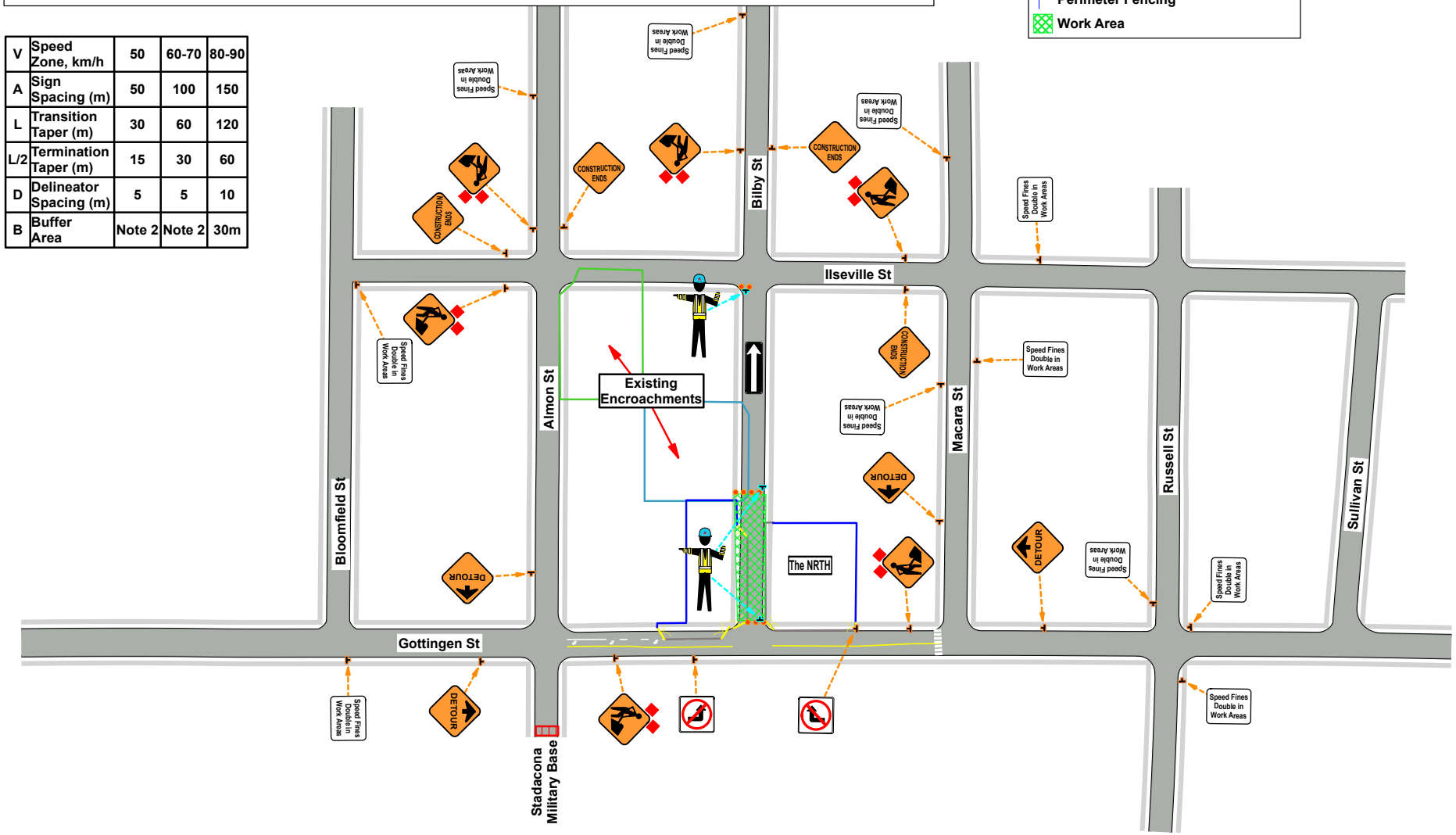
Comments:

Not to Scale
Crane installation and removal Plan
Application Guide C114
Long Duration Closure of Bilby Street to facilitate Crane installation and removal
Sidewalk already closed due to construction activities. TWS to ensure that all signage and barricades are in place.

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- Barrel
- F-type Barrier with Opaque Hoarding
- Gate
- Gate House
- Perimeter Fencing
- Work Area

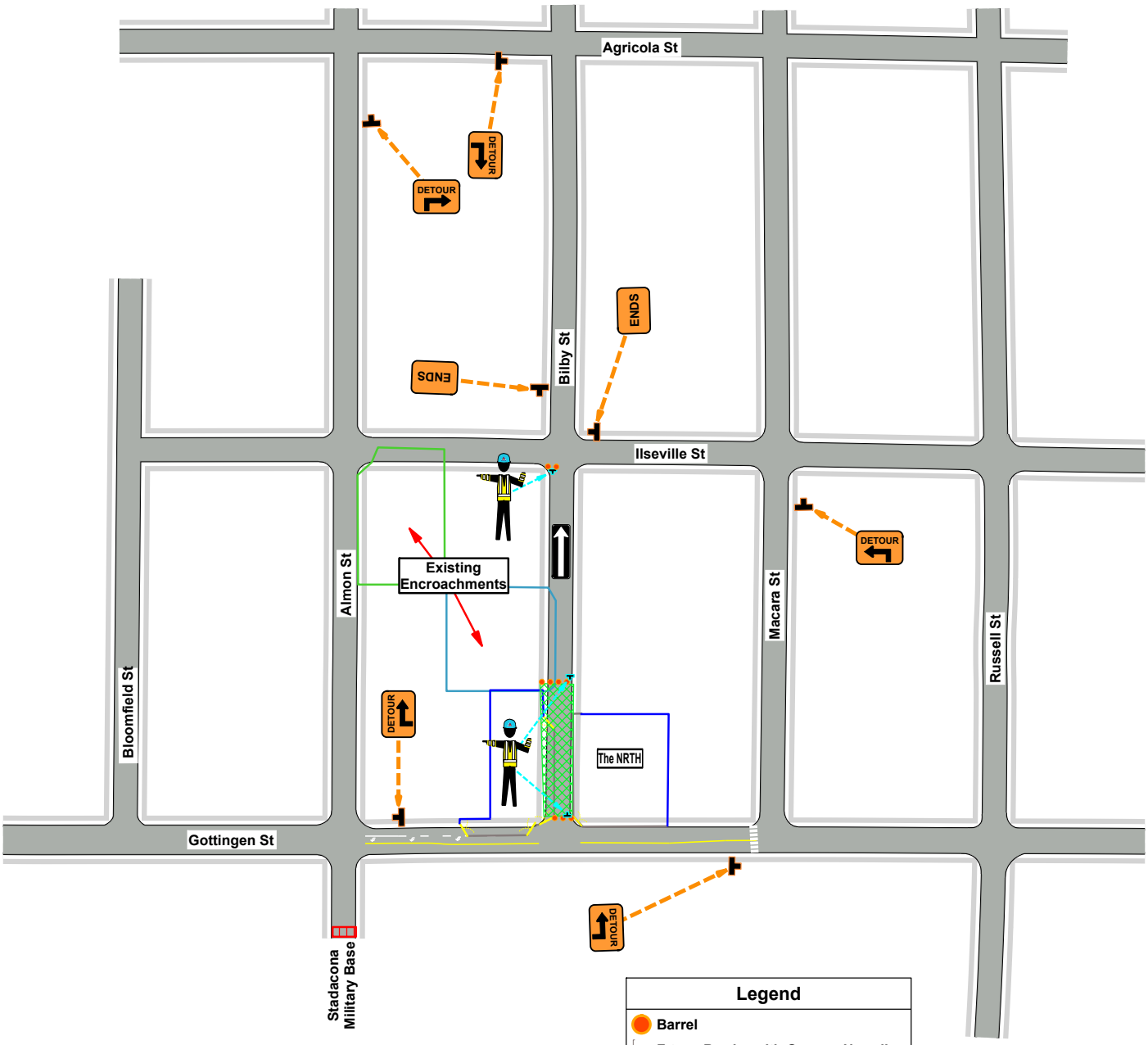


Detour Wayfinding Plan

Date: 2023-04-12 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby Contrator: SDMM Contact: Geoff MacLean,902-789-6374

Comments:

Not to Scale
Detour Wayfinding Plan
Application Guide C77
For use with;
Service Laterals Installation Plan
Crane Installation and Removal Plan



Service Laterals Installation Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

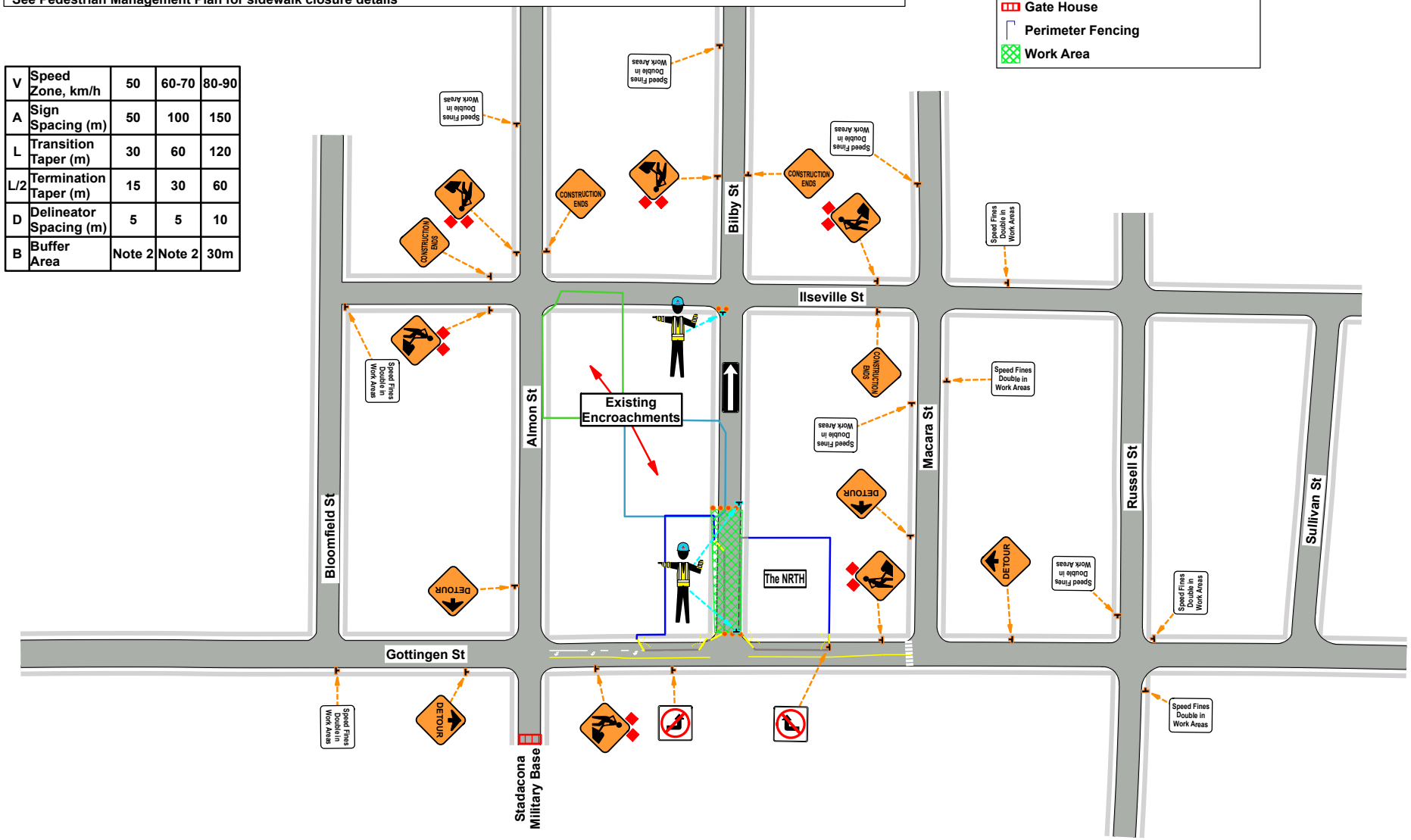
Comments:

Not to Scale
Service Laterals Installation Plan
Application Guide C114
See Pedestrian Management Plan for sidewalk closure details

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- Barrel
- F-type Barrier with Opaque Hoarding
- Gate
- Gate House
- Perimeter Fencing
- Work Area



Appendix C – Haul Route Plan

Haul Route Plan

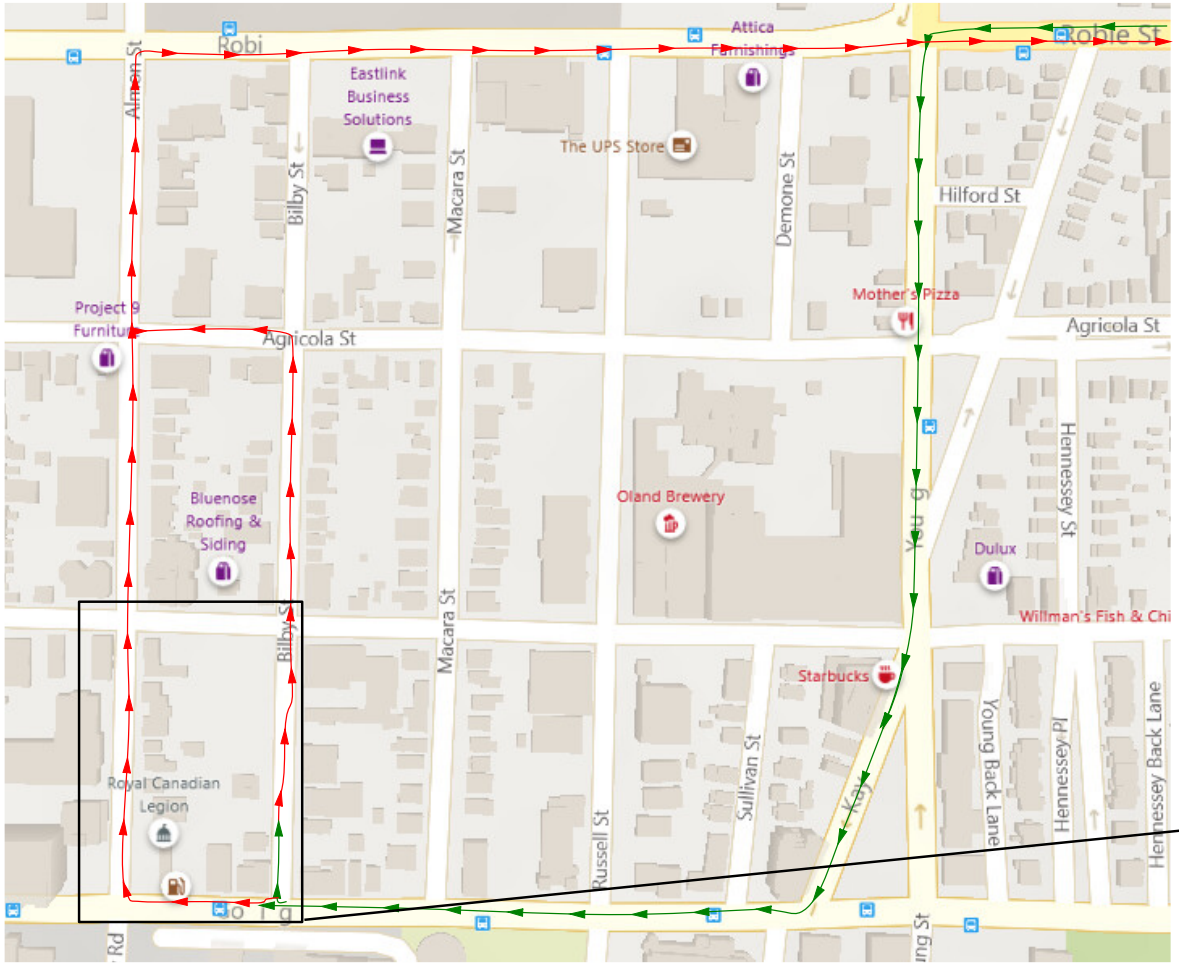
Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

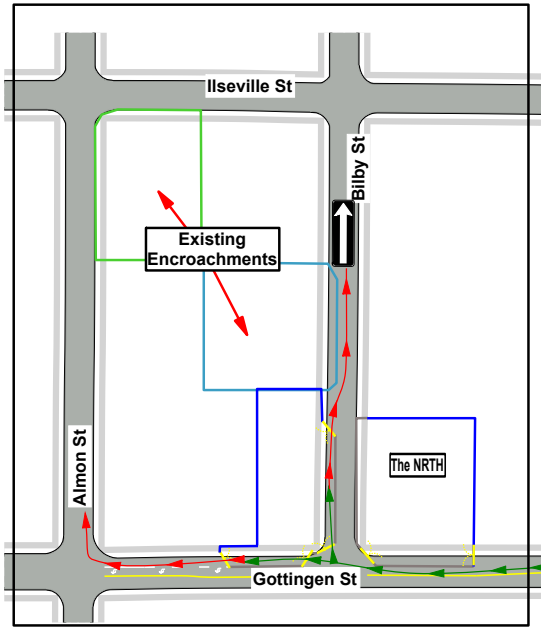
Comments:

Not to Scale
Haul Route Plan
Inbound via Robie St to Young St to Kaye St to Gottingen St to site
Outbound via Gottingen St to Almon St to Robie St or Bilby St to Agricola St to Robie St

Legend

- F-type Barrier with Opaque Hoarding
- Gate
- Perimeter Fencing
- Truck Route Outbound





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Concrete Delivery Plan

Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

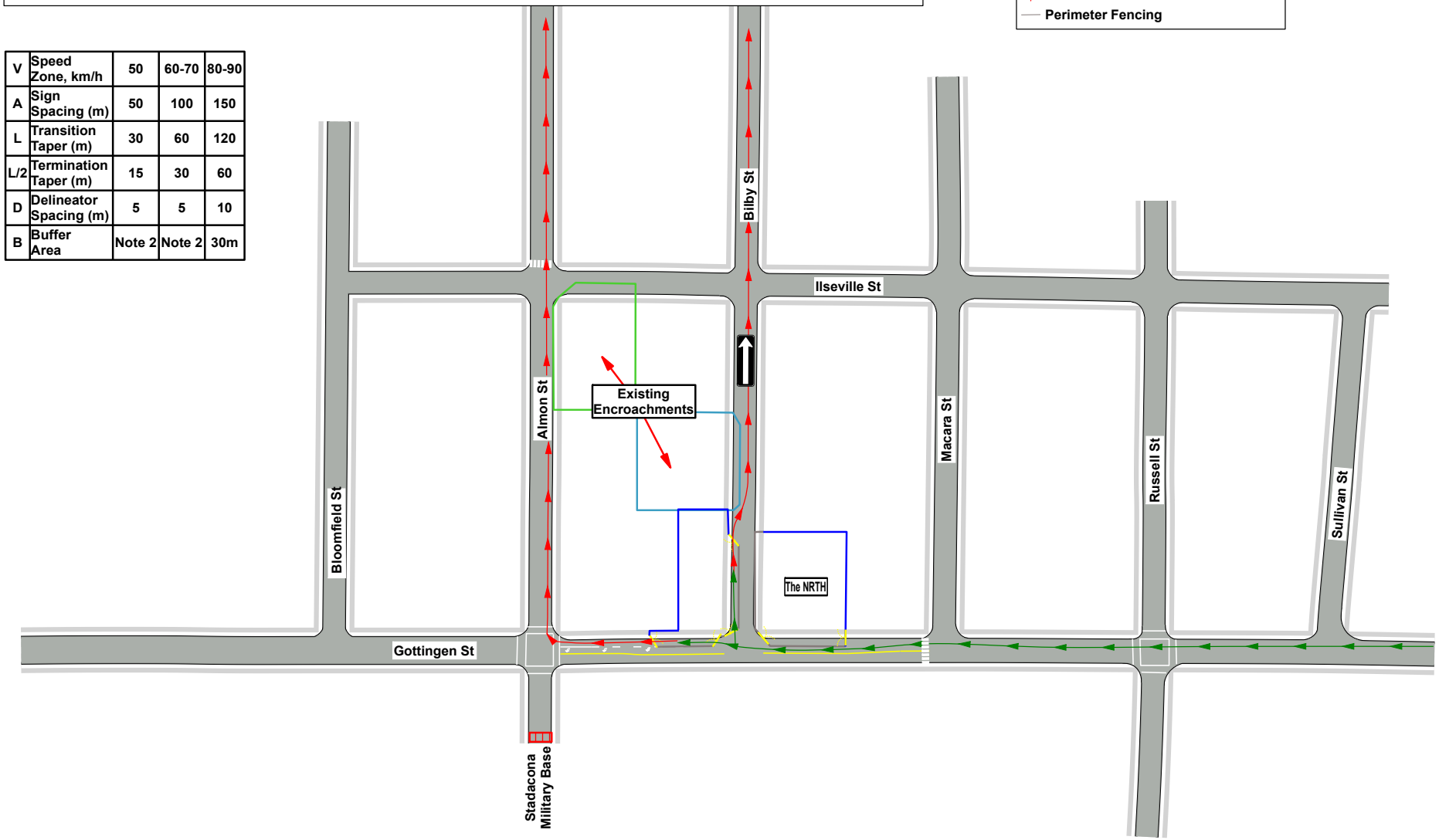
Comments:

Not to Scale
Concrete Delivery Plan
Inbound via Gottingen St
Outbound via Almon St

V	Speed Zone, km/h	50	60-70	80-90
A	Sign Spacing (m)	50	100	150
L	Transition Taper (m)	30	60	120
L/2	Termination Taper (m)	15	30	60
D	Delineator Spacing (m)	5	5	10
B	Buffer Area	Note 2	Note 2	30m

Legend

- F-type Barrier with Opaque Hoarding
- Gate
- Haul Route Inbound
- Haul Route Outbound
- Perimeter Fencing



Appendix D – Pedestrian Management Plan (PMP)

Pedestrian Management Plan

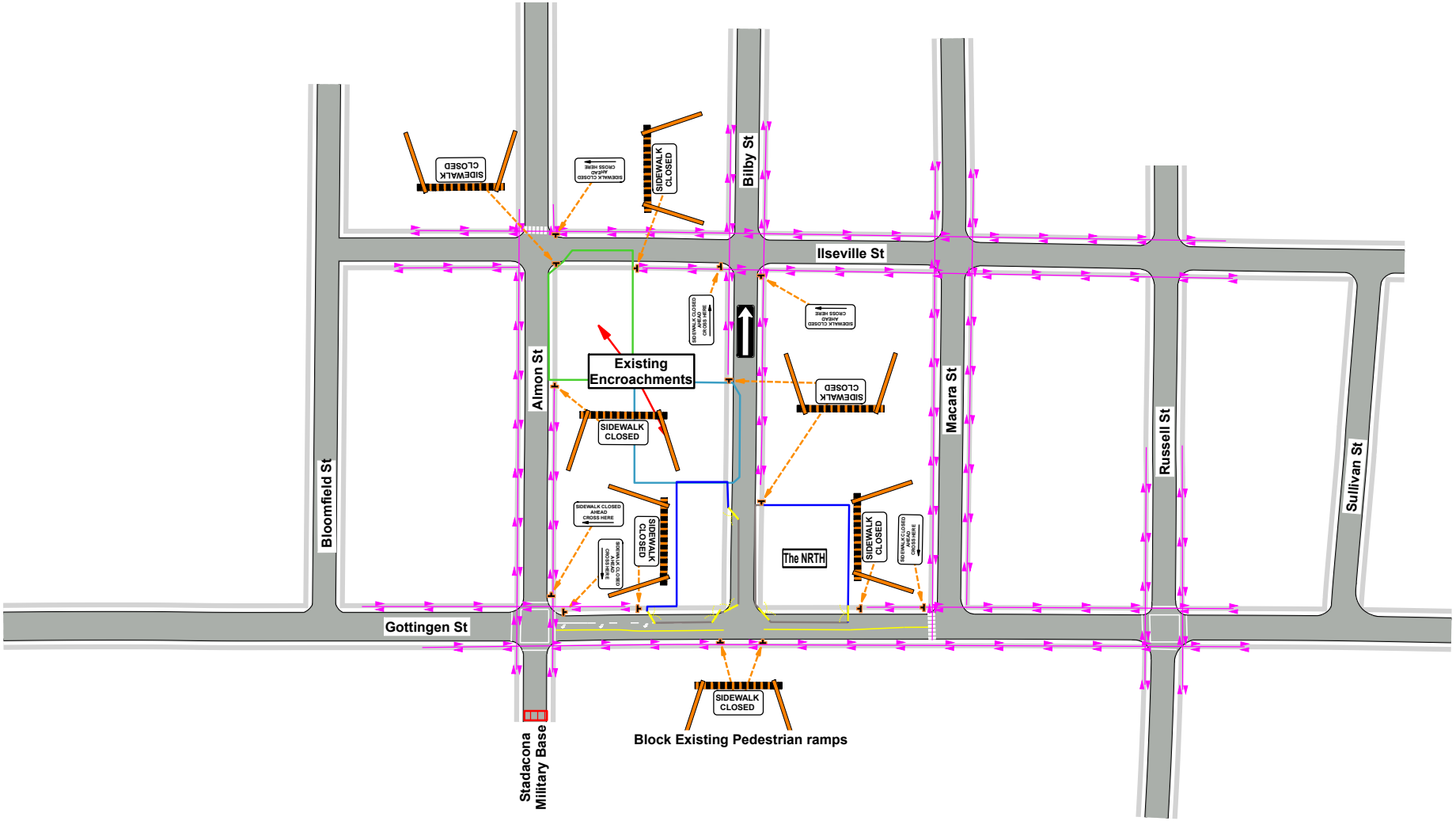
Date: 2021-09-29 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 2828,2830,2832 Gottingen and 5512 Bilby
Contrator: SDMM Contact: Geoff MacLean,902-789-6374

Comments:

Not to Scale
PMP. All encroachments must be unified into a single site for effectiveness.
This Plan shows how Pedestrian Traffic will move around the site.

Legend

- F-type Barrier with Opaque Hoarding
- Gate
- Pedestrian Route
- Perimeter Fencing



Appendix E – Barrier, Fence & Gates Information

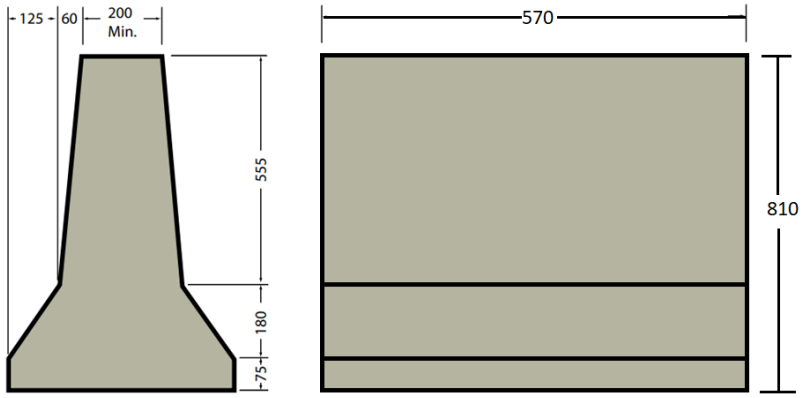
Sample Barrier & Fence Details

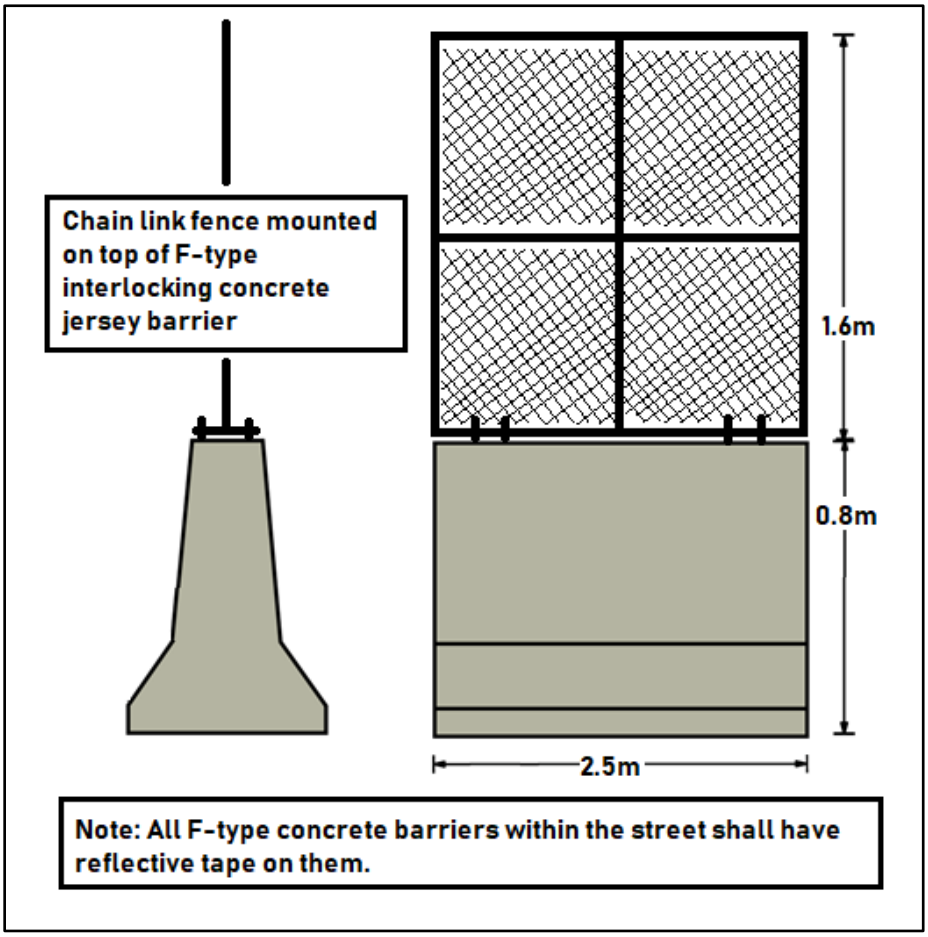
F-shape Barrier

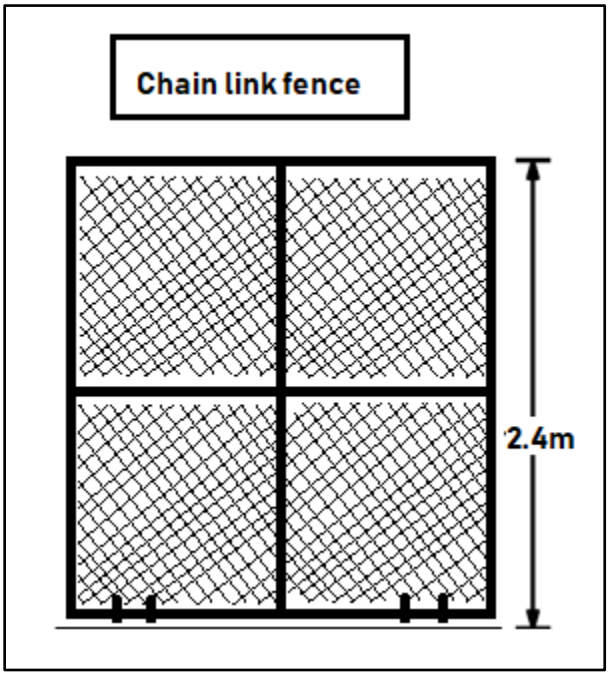
Approved Barrier Designs

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

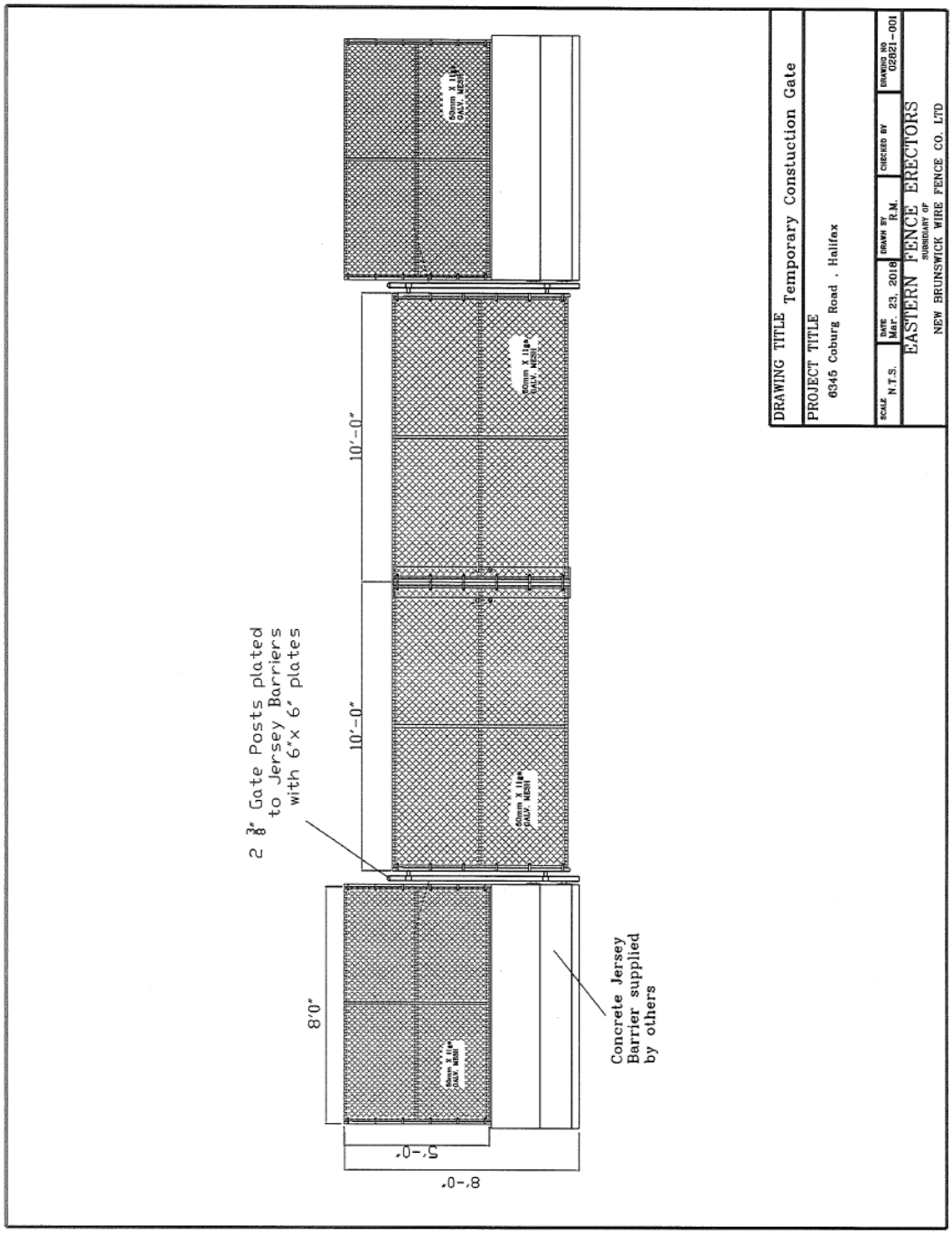
Dimensions are in mm






Chain link fence
2.4m

Sample Gate Detail



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

ULTRAFLEX SYSTEMS INCORPORATED

Technical Data Sheet

UltraMesh® Eclipse ®

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

Material Details

CHARACTERISTICS	TEST METHOD	METRIC	ENGLISH
Base Fabric	100% PES	1000D×1000D	
Construction		12×12	
Total Weight	DIN53352 BS3424 Method5A	270 +/- 20 gsm/m²	7.96 oz/yd²
Width		Up to 500cm	
Tensile Strength	DIN53352 BS3424	Warp 1250 n/5cm Weft 1100 n/5cm	142.75 x 130.19 lb/in
Tear Strength	DIN53356 BS3424	Warp 235 N Weft 225 N	52.8 x 50.5 lbf
Air Permeability	GB/T 2410-2008	2649 mm/s	
Light Transmission	GB/T 5453-1997	37%	
Temperature Resistance	DIN53357 BS3425 Method 10	-20°C 70°C	

Applications

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

Ink Printability

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

Available Sizes

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

The information on physical and chemical characteristics is based upon tests believed to be reliable. The values are intended only as a source of information. A legally binding guarantee of specific properties is not to be inferred from our specifications. They are given without 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.)

ULTRAFLEX SYSTEMS INCORPORATED
www.ultraflexXX.com
updated: 12/2016

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P: (973)627-8606
Email: sales@Ultraflexx.com

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

Ultraflex México
Azafrán No. 112, Col.Granjas México
Del. Iztacalco, C.P. 08400, México D.F.
Tel: (55)31823632,3182 3608
01 800 822 52 31
Email: sales.mx@ultraflexx.com

Ultraflex Guadalajara
Av. Patria No. 2804
Loma Bonita Sur.
Zapopan, Jalisco CP45066
Mexico
Tel: (55)3312-049-857

Appendix G – Project Information Board

March 2022 – June 1, 2024

5512 BILBY STREET APARTMENTS

7 Levels - 40 Residential Units

Mixture of Studio, 1 bedroom & 2 Bedroom Apartment Units

3 levels - Underground Parking accessed by Parking Elevator

Underground and Surface Bicycle Parking/Storage

Landscaped Rooftop Patio with Solar Panels

Unique Clock Tower

Owner:
Cornerstone Developments Ltd
3175 Micmac Street, Halifax, NS, B3L 3W3

24 Hour Emergency Contact:
Michael Lawen – (902) 880-2898

Contractor:
Cornerstone Developments Ltd
3175 Micmac Street, Halifax, NS, B3L 3W3
Contact:
Michael Lawen - (902) 880-2898

Traffic Control:
Frontline Traffic Services
6 Belmont Avenue, P.O. Box 89,
Eastern Passage, NS, B3G 1M7
Contact:
Phil Pruneau - (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

Sample 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 10days prior to the start of the noted construction activity to ensure the passing public has had adequate time to review, adjust their travel patterns, usage of streets and or cab be considered 'informed'.**

Samples

Appendix J – Sample Traffic Notification Letter

Proposed Multi-Unit Residential Building
5512 Bilby 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:

Cornerstone Developments Limited
3175 Micmac Street
Halifax, NS
B3L 3W3
Phone: (902) 880-2898

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

Yours Truly,

Michael Lawen

Cornerstone Developments Limited

Appendix K – Vehicular and Pedestrian Hazard Assessment

Project Date: Location:

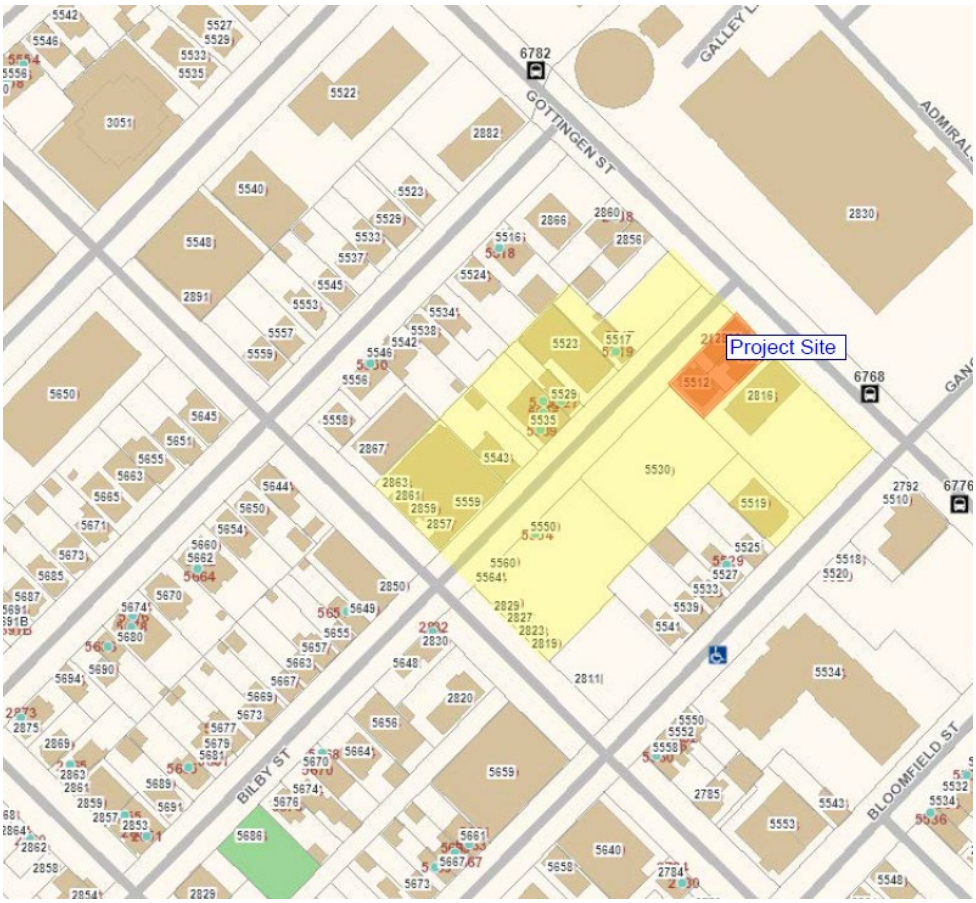
VEHICULAR & PEDESTRIAN HAZARD ASSESSMENT

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 – Bilby Apartments



Notification Letter

Date: *******

Cornerstone Developments Ltd – Building Construction Information Meeting

Dear Neighbour,

As you may be aware, we are planning an apartment building construction project located at 5512 Bilby Street, Halifax on the corner of Bilby and Gottingen Streets.

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.

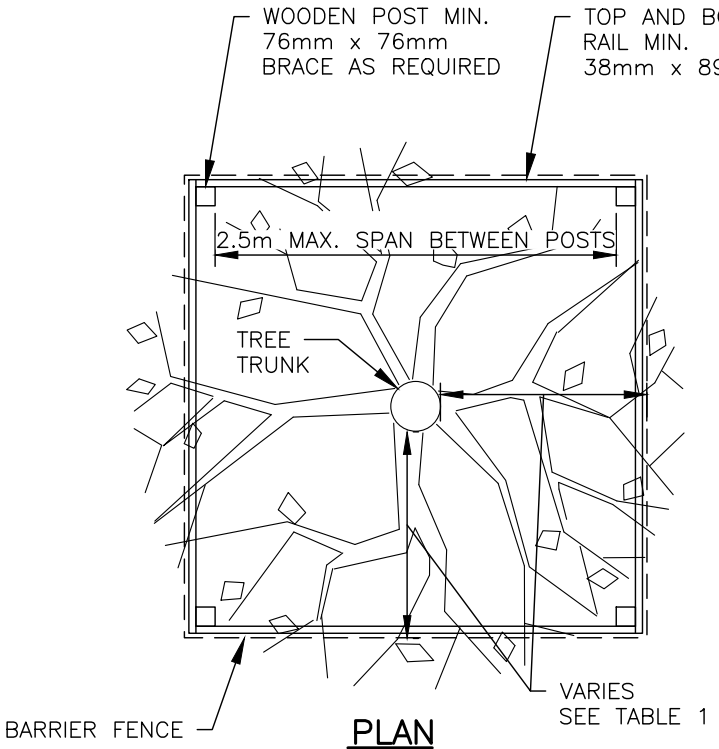
Thank you.

Michael Lawen

Cell: (902) 880-2898

Email: michaellawen@gmail.com

Appendix M – HRM Tree Detail

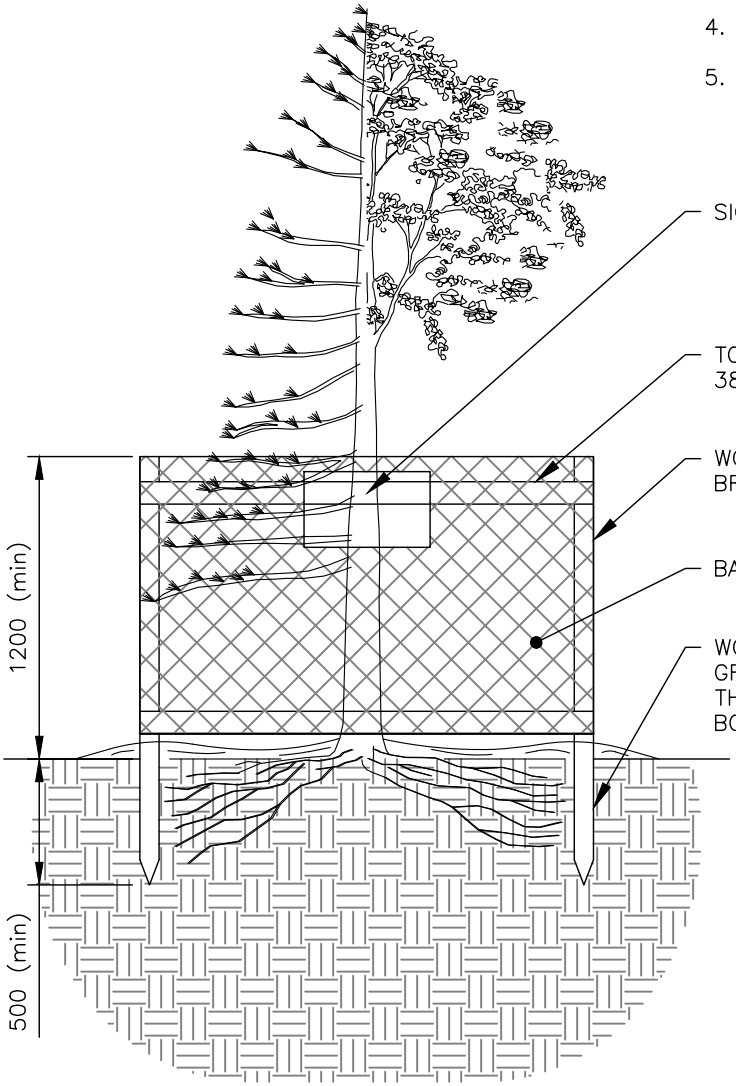


PLAN

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

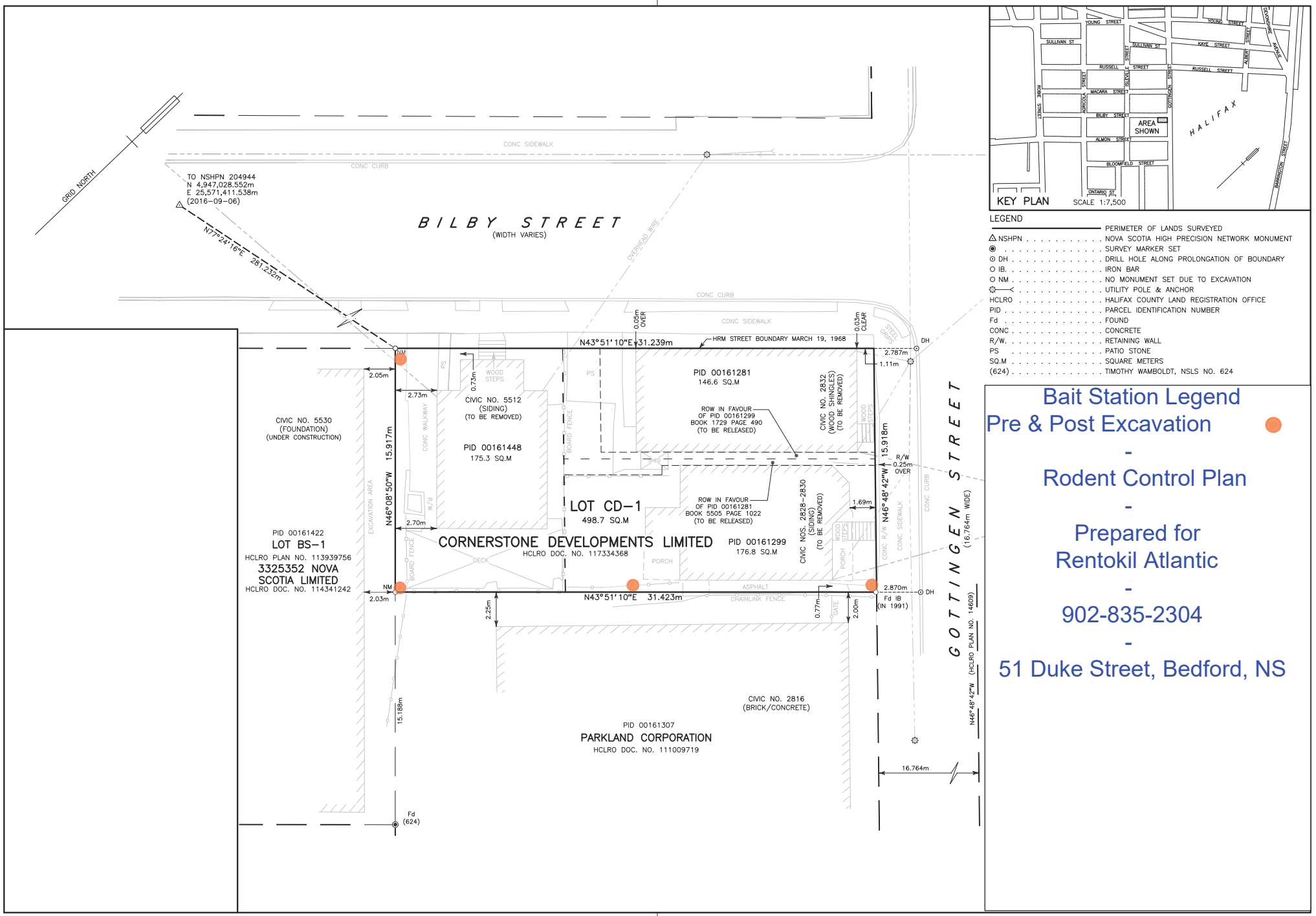
HALIFAX

STANDARD DETAIL

TREE PROTECTION ZONE & BARRIER

DATE: 2021	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 140

Appendix N – Rodent Control Plan



LEGEND

———	PERIMETER OF LANDS SURVEYED
△ NSHPN	NOVA SCOTIA HIGH PRECISION NETWORK MONUMENT
◉	SURVEY MARKER SET
⊙ DH	DRILL HOLE ALONG PROLONGATION OF BOUNDARY
O IB.	IRON BAR
O NM	NO MONUMENT SET DUE TO EXCAVATION
⊸	UTILITY POLE & ANCHOR
HCLRO	HALIFAX COUNTY LAND REGISTRATION OFFICE
PID	PARCEL IDENTIFICATION NUMBER
Fd	FOUND
CONC	CONCRETE
R/W.	RETAINING WALL
PS	PATIO STONE
SQ.M	SQUARE METERS
(624)	TIMOTHY WAMBOLDT, NSLS NO. 624

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

Bell LABORATORIES, INC More Than Meets The Eye

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

www.belllabs.com

ALL-WEATHER
BLOX™

Bell LABORATORIES, INC.

CONTRAC®

ALL-WEATHER BLOX™

NET WT:
18 lbs (8.2 kg)

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.**

SPECIMEN LABEL

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_1 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_1. 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.belllabs.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.

0 30835 40049 2

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

SPECIMEN LABEL

DETEX®BLOX with LUMITRACK

SAFETY DATA SHEET	ACCORDING TO REGULATION: OSHA Hazard Communication Standard 29 CFR 1910.1200	DATE OF ISSUE: January 2016	PREPARED BY: CAR

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: DETEX® BLOX with LUMITRACK
EPA Registration Number: NA
Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Activity Monitoring - Ready to use
Uses advised against: Use only for the purpose described above

MANUFACTURER/SUPPLIER:
Bell Laboratories, Inc.
3699 Kinsman Blvd.
Madison, WI 53704, USA
Email: sds@belllabs.com
Phone: 608-241-0202
Medical or Vet Emergency: 877-854-2494 or 952-852-4636
Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Classification according to Regulation OSHA 1910.1200(d): Not classified
Signal Word: None
See Section 15 for information on FIFRA applicable safety, health, and environmental classifications.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

SECTION 4. FIRST AID MEASURES

Description of first aid measures
Ingestion: Non-Toxic
Inhalation: Not applicable**.**
Eye contact: Non-Toxic
Skin contact: Non-Toxic
Most important symptoms and effects, both acute and delayed
Non-Toxic
Advice to physician: Non-Toxic
Advice to Veterinarian: Non-Toxic

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media
Suitable Extinguishing Media: water, foam or inert gas.
Unsuitable Extinguishing Media: None known.
Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide.
Advice for firefighters: Wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: None. Non-Toxic
Environmental precautions: None. Non-Toxic
Methods and materials for containment and cleaning up
For Containment: None. Non-Toxic
For Cleaning Up: None. Non-Toxic
Reference to other sections: Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and disposal considerations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Do not use near heat sources, open flame, or hot surfaces. Non-Toxic.
Conditions for safe storage, including any incompatibilities: None. Non-Toxic

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Established Limits

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

Appropriate Engineering Controls: None. Non-Toxic
Occupational exposure limits: None. Non-Toxic
Personal Protective Equipment:
Respiratory protection: Not required
Eye protection: Not required
Skin protection: None. Non-Toxic
Hygiene recommendations: None. Non-Toxic

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not Applicable
Chemical stability: Not Applicable
Possibility of hazardous reactions: Refer to Hazardous decomposition products
Conditions to avoid: Avoid extreme temperatures (below 0°C or above 40°C).
Incompatible materials: Not Applicable
Hazardous decomposition products: Not Applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute Toxicity
LD50, oral (ingestion): Not Toxic
LD50, dermal (skin contact): Not Toxic
LC50, inhalation: Not Toxic
Skin corrosion/irritation: Not Toxic
Serious eye damage/Irritation: Not Toxic.
Respiratory or skin sensitization: Not Toxic
Germ cell mutagenicity: Not Toxic
Carcinogenicity: Not Toxic

Components	NTP	IARC	OSHA
None	NA	NA	NA

Reproductive Toxicity: Not Toxic
Aspiration Hazard: Not Toxic
Target Organ Effects: Not Toxic

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: Not Toxic
Persistence and degradability: Not Toxic
Bioaccumulative potential: Not Toxic
Mobility in Soil: Not Toxic.
Other adverse effects: None.

SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 14. TRANSPORT INFORMATION

UN number: Not regulated
UN proper shipping name: Not regulated
Transport hazard class(es): Not regulated
Packing group : Not regulated
Environmental Hazards
DOT Road/Rail: Not considered hazardous for transportation via road/rail.
DOT Maritime: Not considered hazardous for transportation by vessel.
DOT Air: Not considered hazardous for transportation by air.
Freight Classification: LTL Class 60
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable
Special precautions for user: None

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture: Not applicable
Signal Word: None
Precautionary Statements: None
Potential Health Effects:
Eye Contact: May cause irritation
Skin Contact: Non-irritating to the skin
Ingestion: Not harmful if swallowed

TSCA: All components are listed on the TSCA Inventory or are not subject to TSCA requirements
CERCLA/SARA 313: Not Toxic
CERCLA/SARA 302: Not Toxic

SECTION 16. OTHER INFORMATION

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

NFPA	Health: 0 (Not Toxic)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
HMIS	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.

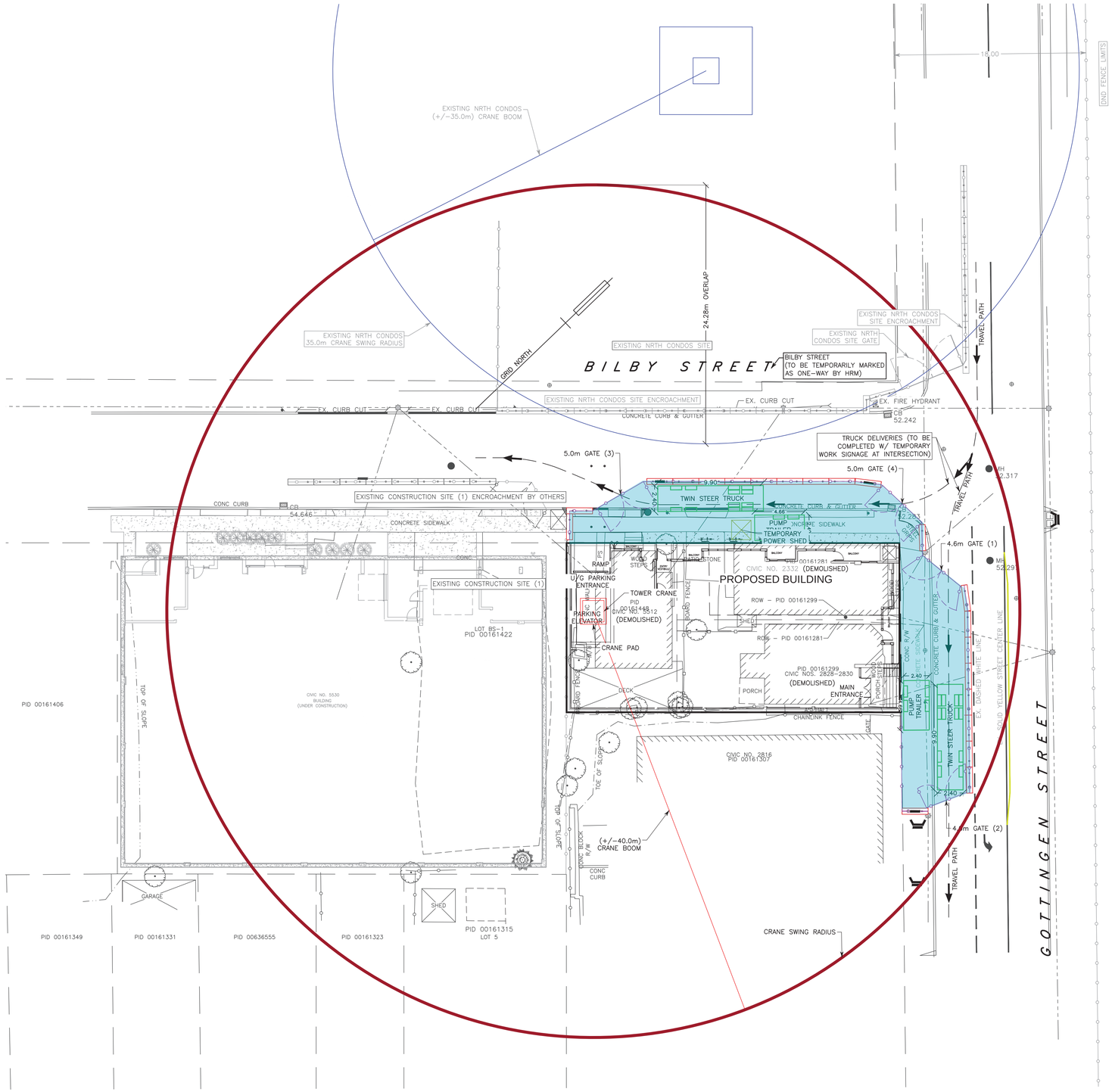
Appendix O – CMP's TCP & PMP Inspection Records

Project: ________________ Location: ____________ Phase: ___________ Date: ___________ Inspector: ___________

CONSTRUCTION MANAGEMENT PLAN - INSPECTION CHECKLIST

CMP Element	Set-up per PMP?			Condition?		Action Required	Action Completed	Comments
	Yes	No	N/A	Good	Bad			

Appendix P – Concrete Delivery Schematic



KEY PLAN

LEGEND

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

NOTES

1. THIS PLAN IS IN METRIC.

No.	YY/MM/DD	Revision Description	Appr'd
2	23/04/04	TOWER CRANE ADDITION	
1	22/04/08	REVISED AS PER HRM COMMENTS	
0	21/12/22	ISSUED FOR REVIEW	

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE
G.K. MacLean
8978

SDMM
Servant, Dunbrack, McKenzie & MacDonald Ltd.
NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS
36 GLAND CRESCENT
BAYERS LAKE BUSINESS PARK
HALIFAX, NS B3S 1C6
PHONE: (902) 455-1537
FAX: (902) 455-8479
WEB: www.sdmm.co

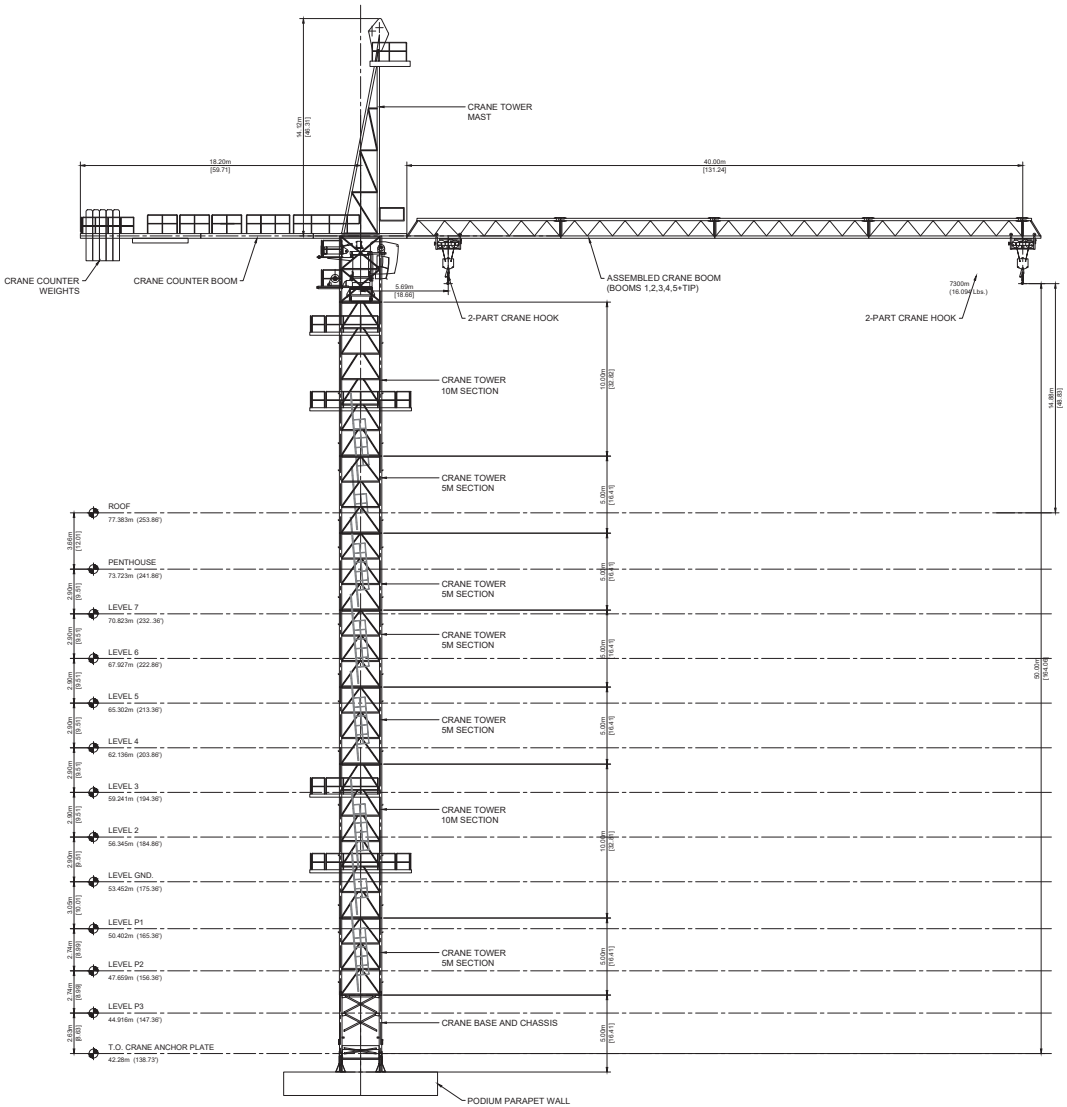
MULTI-UNIT RESIDENTIAL BUILDING
5512 BILBY STREET
HALIFAX, NOVA SCOTIA

CONCRETE DELIVERY SCHEMATIC

Date: DECEMBER 22, 2021	Drawn: D. ANDERSON	Project No.: FILE NO. 1-1-508 (36495)
Scale: 1:200	Engineer: G. MACLEAN	Plan No.:
Reference: 36641	Approved: G. MACLEAN	Drawing Name: R2
Surveyed: SDMM	Sheet:	

0m 5 10 15 20m

Appendix Q – Crane Information



1 S-1.00 POTAIN CRANE ASSEMBLY DIAGRAM
Scale: 1:150m

CLIENT: MICHAEL LAWEN

NORTH:

NOTES:

PRELIMINARY
NOT FOR
CONSTRUCTION
06-APR-2023

01	PRELIMINARY DESIGN	06-APR-2023
REV.	REVISION	REV. DATE

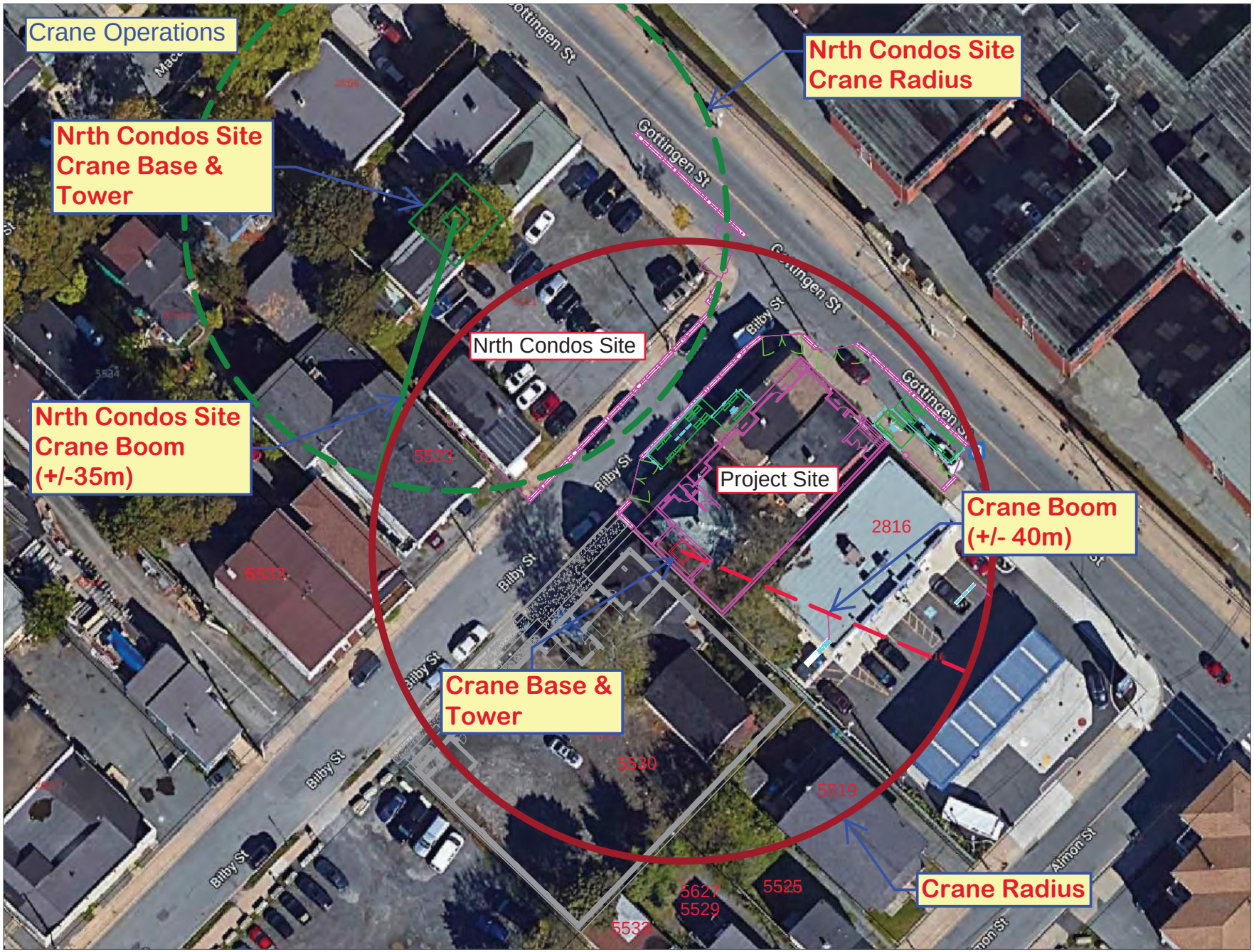
PROJECT:
PROPOSED TOWER
CRANE ASSEMBLY

5512 BILBY STREET
HALIFAX, NOVA SCOTIA

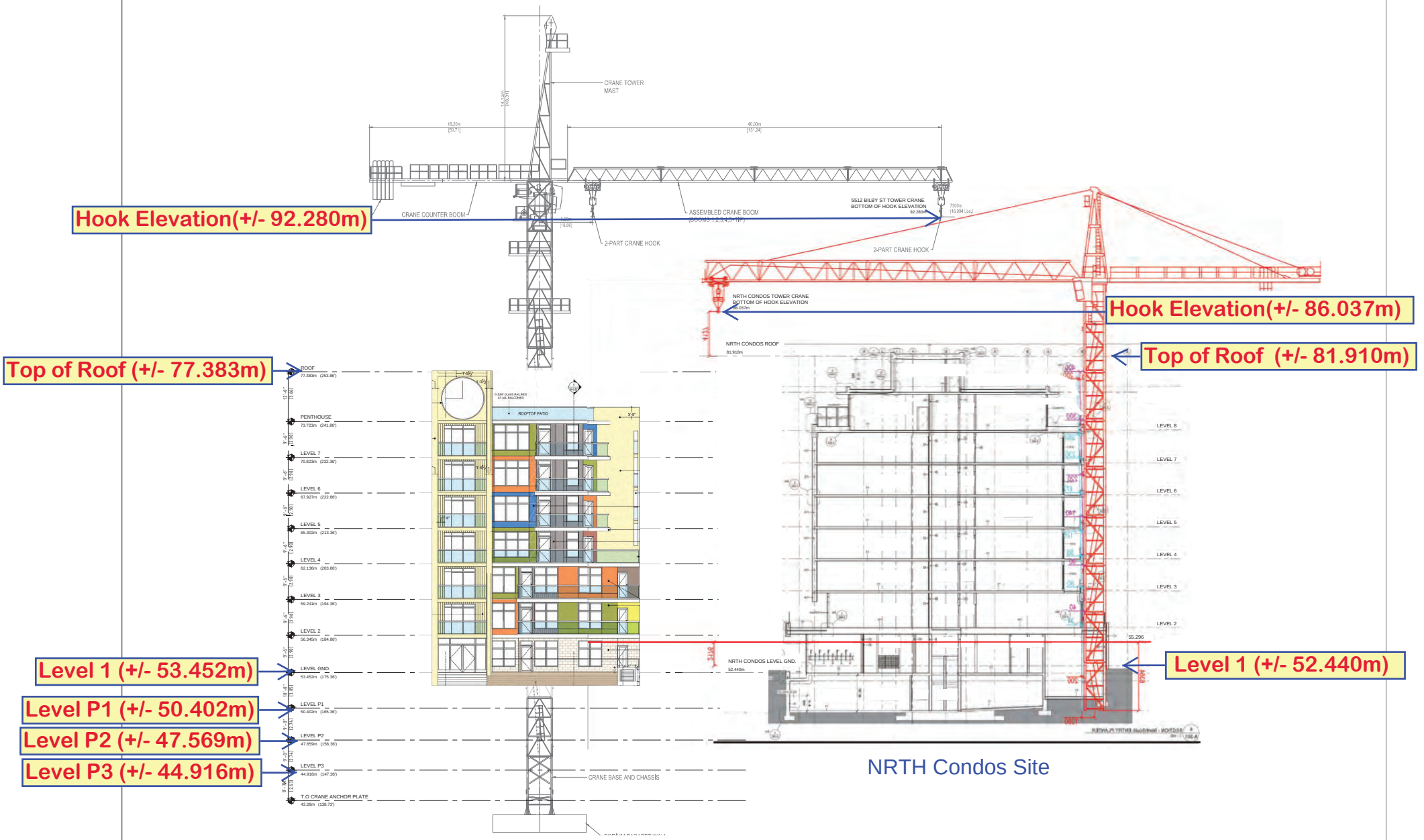
DRAWING:
ASSEMBLED CRANE
ELEVATION DIAGRAM

SCALE: 1:150 (METRIC)
DRAWN: JWM
DATE: FEB-16-2023
APPROVED: - - -
DATE:
DRAWING NO. 23-002 S-1.00

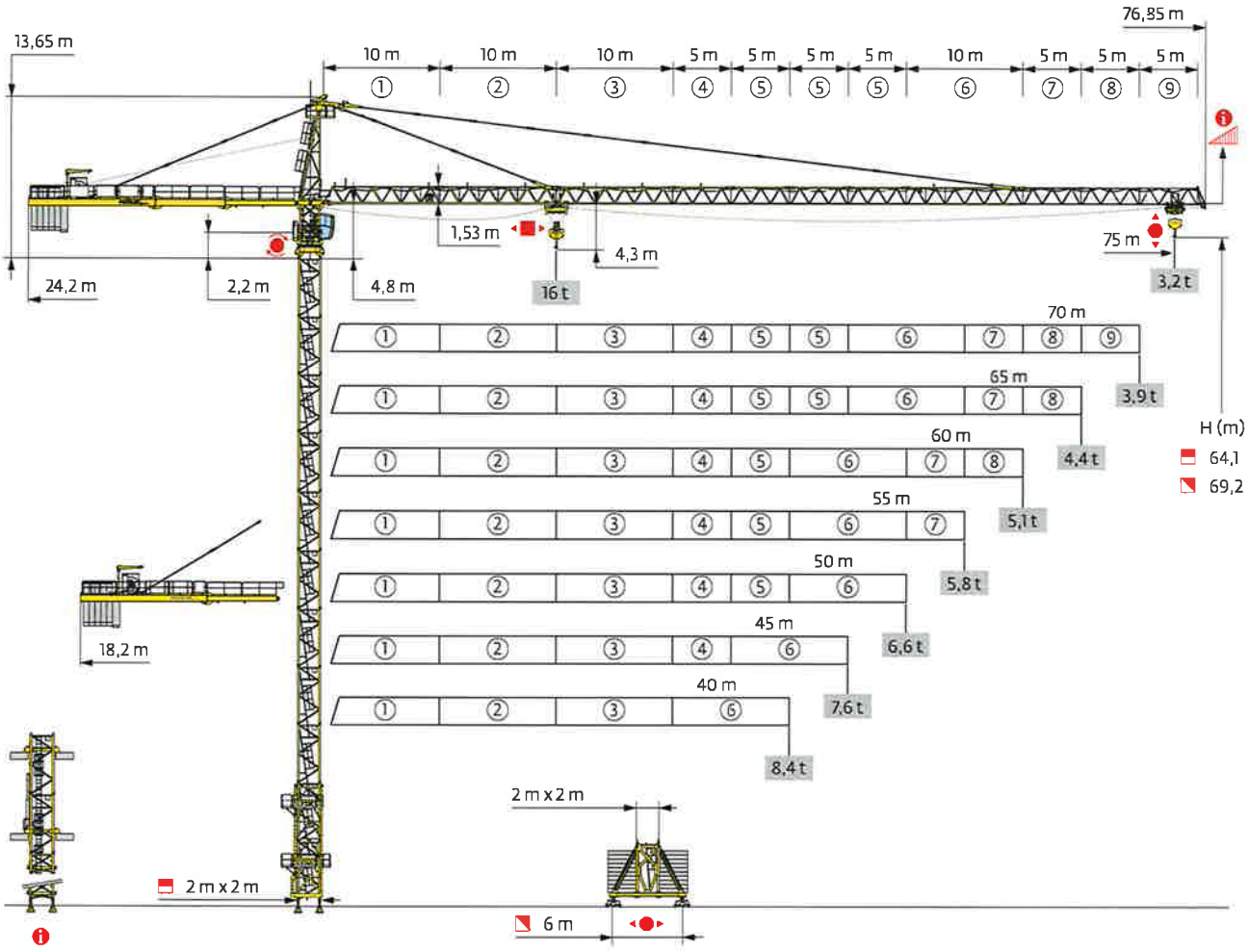
P:\AUTOCAD\Luiz Working Files\007 - 5512 Bilby St - Admiral Corner\CRANE-DWGS\CRANE-PENIER-POTAIN-MD-365-ASSEMBLED.dwg


Crane Operations
Nrth Condos Site Crane Radius
Nrth Condos Site Crane Base & Tower
Nrth Condos Site
Nrth Condos Site Crane Boom (+/-35m)
Project Site
Crane Boom (+/- 40m)
Crane Base & Tower
Crane Radius
Gottingen St
Billby St
Almon St
5523
5533
2816
5530
5519
5627
5529
5525
5532

Crane Operations



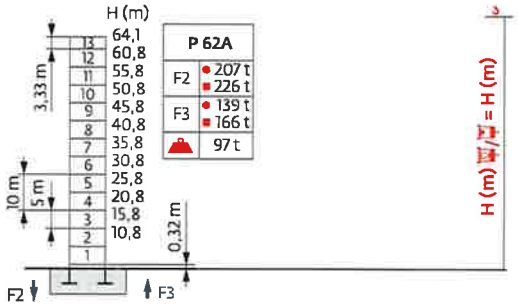
Potain MD 365 B L16

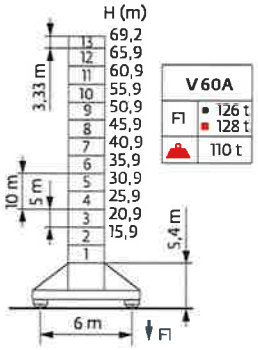


FEM 1.001-A3

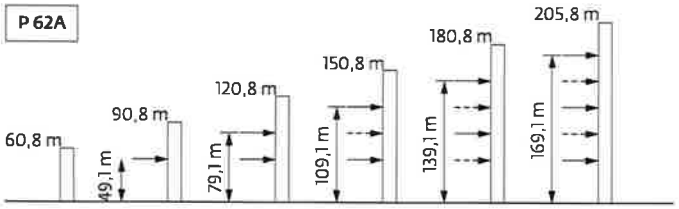
Mât - Réactions / Mast - Reaktionskräfte / Mast - Reactions / Mástil - Reacciones / Torre - Reazioni
Tramo - Reacções / Реакция опор мачты

2 m
40 m → 75 m



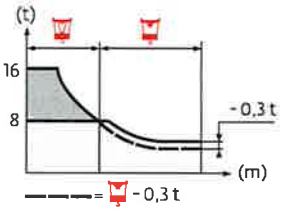


Ancrages / Verankerungen / Anchorages / Anclajes / Ancoraggi
Ancoragem / Анкера



Courbes de charges / Lastkurven / Load curves / Curvas de cargas / Curve di carico
Curvas de carga / Кривые нагрузок

75 m	2,7	▶	19,9	22	25	27	30	32	35	35,9	37	40	42	45	47	50	52	55	57	60	62	65	67	70	72	75	m
			16	14,2	12,2	11,1	9,7	9	8	8	7,7	7	6,5	6	5,6	5,2	4,9	4,5	4,3	4	3,8	3,5	3,4	3,1	3	2,8	t
70 m	2,7	▶	21	22	25	27	30	32	35	37,1	38,2	40	42	45	47	50	52	55	57	60	62	65	67	70	m		
			16	15,2	13	11,9	10,4	9,6	8,6	8	8	7,5	7,1	6,5	6,1	5,6	5,4	5	4,7	4,4	4,2	3,9	3,7	3,5	t		
65 m	2,7	▶	21,1	22	25	27	30	32	35	37,4	38,5	40	42	45	47	50	52	55	57	60	62	65	m				
			16	15,2	13,1	12	10,5	9,7	8,7	8	8	7,6	7,2	6,6	6,2	5,7	5,4	5	4,8	4,5	4,3	4	t				
60 m	2,7	▶	21,6	22	25	27	30	32	35	37	38,5	39,6	42	45	47	50	52	55	57	60	m						
			16	15,7	13,5	12,3	10,9	10,1	9	8,4	8	8	7,4	6,8	6,5	6	5,7	5,3	5	4,7	t						
55 m	2,7	▶		22	25	27	30	32	35	37	39,1	40,3	42	45	47	50	52	55	m								
				16	13,8	12,6	11,1	10,3	9,2	8,6	8	8	7,6	7	6,6	6,1	5,8	5,4	t								
50 m	2,7	▶		22,2	25	27	30	32	35	37	39,6	40,8	42	45	47	50	m										
				16	14	12,7	11,2	10,4	9,3	8,7	8	8	7,7	7,1	6,7	6,2	t										
45 m	2,7	▶		22,5	25	27	30	32	35	37	40,1	41,3	42	45	m												
				16	14,2	12,9	11,4	10,6	9,5	8,9	8	8	7,8	7,2	t												
40 m	2,7	▶		23,3	25	27	30	32	35	37	40	m															
				16	14,8	13,5	11,9	11	9,9	9,3	8,4	t															



75 m	2,7	▶									37,4	40	42	45	47	50	52	55	57	60	62	65	67	70	72	75	m
											8	7,4	6,9	6,4	6	5,6	5,3	4,9	4,7	4,4	4,2	3,9	3,8	3,5	3,4	3,2	t
70 m	2,7	▶										39,7	42	45	47	50	52	55	57	60	62	65	67	70	m		
												8	7,5	6,9	6,5	6	5,8	5,4	5,1	4,8	4,6	4,3	4,1	3,9	t		
65 m	2,7	▶										40,1	42	45	47	50	52	55	57	60	62	65	m				
												8	7,6	7	6,6	6,1	5,8	5,4	5,2	4,9	4,7	4,4	t				
60 m	2,7	▶										41,3	42	45	47	50	52	55	57	60	m						
												8	7,8	7,2	6,9	6,4	6,1	5,7	5,4	5,1	t						
55 m	2,7	▶											42	45	47	50	52	55	m								
													8	7,4	7	6,5	6,2	5,8	t								
50 m	2,7	▶											42,5	45	47	50	m										
													8	7,5	7,1	6,6	t										
45 m	2,7	▶											43,1	45	m												
													8	7,6	t												
40 m	2,7	▶										40	m														
												8	t														

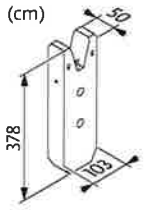
Lest de base / Grundballast / Base ballast / Lastre de base / Zavorra di base
Lastro da base / Базовый Балласт

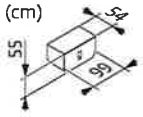
2 m	V 60A	H (m)	69,2	65,9	60,9	55,9	50,9	45,9	40,9	35,9	30,9	25,9	20,9	15,9
		(t)	[illegible]						56	56	56	56	64	84

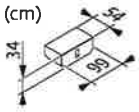
Lest de contre-flèche / Gegenauslegerballast / Counter-jib ballast / Lastre de contra-flecha / Zavorra di controbraccio
Lastro da contra lança / Противовес стрелы

	75 LVF				100 LVF				150 LCC			
	4200 kg	700 kg		(kg)	4200 kg	700 kg		(kg)	4200 kg	700 kg		(kg)
75 m	5	4	1	24162	5	3	1	23462	5	2	1	22762
70 m	5	0	0	21000	4	5	1	20662	4	3	1	19262
65 m	4	3	1	19262	4	3	1	19262	4	1	1	17862
60 m	4	0	1	17162	3	5	1	16462	3	3	1	15062
55 m	3	3	1	15062	3	3	1	15062	3	2	1	14362
50 m	5	5	1	24862	5	4	1	24162	5	3	1	23462
45 m	5	0	1	21362	4	5	1	20662	4	4	1	19962
40 m	4	2	1	18562	4	1	1	17862	4	0	1	17162

CA - 4200 kg	CB - 700 kg	CAB - 700 kg	362 kg



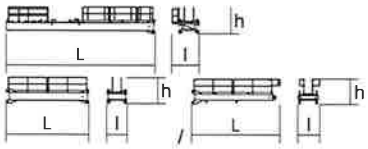
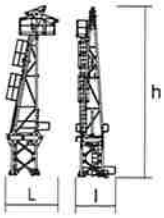
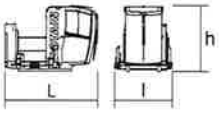
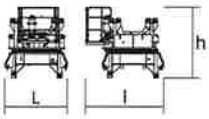
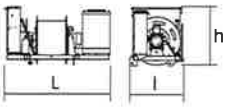
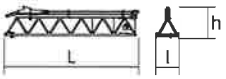
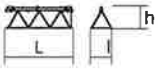
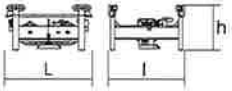
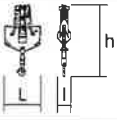


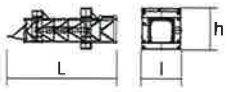
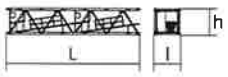
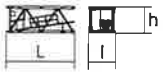
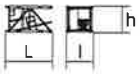
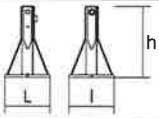
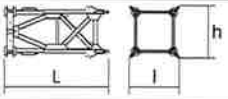
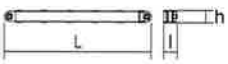


Encombrement et poids / Abmessungen und Gewicht / Dimensions and weight / Dimensiones y peso / Ingombro e peso
dimensões e pesos / габаритные размеры и вес

Partie tournante / Drehender Kranteil / Slewing crane part / Parte giratoria
Parte rotante / Parte rotativa / Поворотная часть : 75 m - - 75 LVF

x 7
x 7

Partie tournante / Drehender Kranteil / Slewing crane part **Parte giratoria / Parte rotante / Parte rotativa** **Поворотная часть**			**L (m)**	**l (m)**	**h (m)**	**kg** (+/- 5%)
Contre-flèche / Gegenausleger Counter-jib / Contra-flecha Controbraccio / Contra-lança Контр-стрела			10,94 6,22 6,39	1,93 1,5 1,5	1,75 1,75 1,75	3755 2110 1560
Porte-flèche / Auslegerträger Cathead / Porta-flecha Cuspide / Suporte de lança Оголовок			2,3	1,79	13,45	8650
Cabine / Kabine Cab / Cabina Cabina / Cabina Кабина		Ultra View	3,56	2,21	2,51	1550
Pivot / Krankopf Towerhead / Pivote Portaralla / Pivot Секция поворотной части		2 m	2,29	2,46	2,4	8100
Treuil de levage (+ câble) / Hubwerk (+ Seil) Hoisting winch (+ rope) / Mecanismo de elevación (+ cabo) Argano di sollevamento (+ fune) Guincho de elevação (+ cabo) Подъемная лебёдка (+ канатом)		75 LVF 100 LVF 150 LCC	2,48 3,09 3,62	1,63 1,6 1,65	1,4 1,88 1,89	3650 4800 6145
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы		① 6 DVF ② ③ ⑥	10,27 10,27 10,22 10,21	1,81 1,6 1,6 1,6	1,93 1,78 1,76 1,75	2360 2225 1850 1475
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы		④ ⑤ ⑦ ⑧ ⑨	5,27 5,27 5,2 5,16 5,15	1,6 1,6 1,6 1,6 1,6	1,75 1,51 1,47 1,45 1,43	855 820 595 420 370
Chariot / Laufkatze Trolley / Carrello Carro / Carro-distribuidor Тележка		16 t	2,21	1,94	1,16	620
Moufle / Hubflasche Pulley block / Aparejo Bozzello / Cadernal Полиспаст		16 t	1,05	0,42	2,76	230

Equipement de télescopage / Teleskopierausrüstung / Telescoping equipment Equipo de telescopaje / Equipaggiamento di telescopaggio / Equipamento de telescopagem Оборудование для телескопирования			**L (m)**	**l (m)**	**h (m)**	**kg (+/- 5%)**
Cage de télescopage / Teleskopwagen Telescopic cage / Jaula de telescopaje Gabbia di telescopaggio / Gaiola de telescopagem для телескопирования крана		⍁2 m	11,5	4,21	4,36	8235
Mâture / Mastwerk / Masts Mástil / Torre / Coluna Мачты						
K 639B		⍁2 m	10,23	2,07	2,03	5290
KR 639A K 639A		⍁2 m ⍁2 m	5,23 5,23	2,07 2,07	2,03 2,03	3245 2805
K 639C		⍁2 m	3,57	2,07	2,03	1985
Bases / Kranbasen / Crane bases Bases / Basi / Bases фундамент под кран						
Pieds de scellement / Verankerungsfüße Fixing angles / Pie de empotramiento Montante da annegare / Angulos fixadores анкера		P 62A	0,65	0,65	1,27	295
Mât-châssis / Grundmasteinheit Basic mast unit / Tramo-chasis Elemento base / Tramo-chassis Мачта для крепления к шасси		V 60A	5,01	2,41	2,41	4390
Haubans / Mastabstützungen Struts / Tornapuntas Puntoni / Escoras Растяжка		V 60A	4,51	0,29	0,29	420
Sommier / Unterwagenhälfte Half-bearer / Testero Testata / Estrutura base Траверса		V 60A	6,7	0,7	2,31	1600

Mécanismes / Triebwerke / Mechanisms / Mecanismos / Meccanismi
Mecanismos / Механизмы

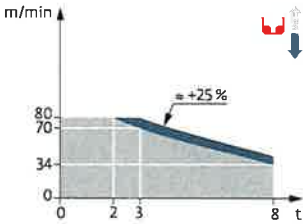
400 V - 50 Hz											ch - PS hp	kW	
	75 LVF 40 Optima	m/min	34	44	70	80	17	22	35	40	75	55	553 m
		t	8	6	3	2	16	12	6	4			
	100 LVF 40 Optima	m/min	44	56	96	116	22	28	48	58	100	75	1009 m
		t	8	6	3	2							
	150 LCC 40	m/min	68	82	102	136	162	34	41	51	68	81	150	110	596 m
		t	8	6	4	2	1	16	12	8	4	2			
	6 DVF 6	m/min	0 → 42 (16 t) 0 → 84 (8 t) 0 → 100 (4 t)										5,5	4	
	RVF 182 Optima+	tr/min U/min rpm	0 → 0,7										2 x 12	2 x 9	
V 60A	RT 544 A1 - 2V R ≧ 13 m	m/min	13,5 - 27										4 x 7	4 x 5,2	

IEC 60204-32	kVA
400 V (+10% -10%) 50 Hz	75 LVF : 98 kVA 100 LVF : 123 kVA 150 LCC : 173 kVA

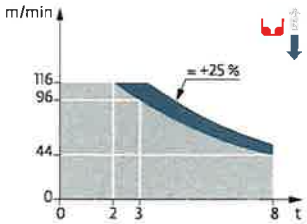
480 V - 60 Hz											ch - PS hp	kW	
	75 LVF 40 Optima	m/min	34	44	70	80	17	22	35	40	75	55	553 m
		t	8	6	3	2	16	12	6	4			
	100 LVF 40 Optima	m/min	44	56	96	116	22	28	48	58	100	75	1009 m
		t	8	6	3	2	16	12	6	4			
	150 LCC 40	m/min	68	82	102	136	162	34	41	51	68	81	150	110	596 m
		t	8	6	4	2	1	16	12	8	4	2			
	6 DVF 6	m/min	0 → 42 (16 t) 0 → 84 (8 t) 0 → 100 (4 t)										5,5	4	
	RVF 182 Optima+	tr/min U/min rpm	0 → 0,7										2 x 12	2 x 9	
V 60A	RT 544 A1 - 2V R ≧ 13 m	m/min	16 - 32										4 x 8,4	4 x 6,2	

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	75 LVF : 98 kVA 100 LVF : 123 kVA 150 LCC : 203 kVA

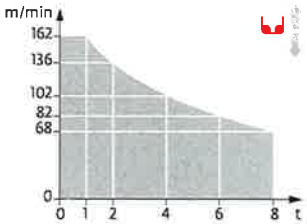
75 LVF 40 Optima



100 LVF 40 Optima



150 LCC 40



	FR	DE	EN	ES	IT	PT	RU
	Appel de flèche	Auslegerüberhöhung	Jib elevation	Elevación de la flecha	Inclinazione braccio	Desvio da lança	подъем стрелы
	Réactions en service	Reaktionskräfte in Betrieb	Reactions in service	Reacciones en servicio	Reazioni in servizio	Reacções em serviço	Реакция при работе
	Réactions hors service	Reaktionskräfte außer Betrieb	Reactions out of service	Reacciones fuera de servicio	Reazioni fuori servizio	Reacções fora de serviço	Реакция в покое
	Poids à vide sans lest avec flèche et hauteur maximum	Gewicht ohne Last, ohne Ballast, mit Ausleger und max. Höhe	Weight without load, without ballast, with jib and max. height	Peso en vacío sin lastre, con flecha y altura máxima	Peso a vuoto, senza zavorra, con braccio e altezza massimi.	Peso em vazio sem lastro com lança e altura máxima.	Вес пустого, без балласта, со стрелой, максимальной высоты.
	Poids total du lest	Ballast-Gesamtgewicht	Total ballast weight	Peso total del lastre	Peso totale della zavorra	Peso total do lastro	Общий вес балласта
	Camion 13,4 m	Lkw 13,4 m	Lorry 13,4 m	Camión 13,4 m	Camion 13,4 m	Camião 13,4 m	Грузовой автомобиль 13,4 м
	Conteneur High Cube 40', et/ou Flat Rack 20'	Container High Cube 40', und/oder Flat Rack 20'	Container High Cube 40', and/or Flat Rack 20'	Contenedor High Cube 40', y/o Flat Rack 20'	Container High Cube 40', e/o Flat Rack 20'	Contentor High Cube 40', e/ou Flat Rack 20'	40-футовый контейнер повышенной вместимости High Cube, и/или 20-футовая открытая платформа Flat Rack
	Cadre d'ancrage serré	Fester Verankerungs-rahmen	Tightened anchorage frame	Marco de anclaje de apriete	Quadro di ancoraggio stretto	Quadro de amarração apertado	Прикрепленная анкерная рама
	Cadre d'ancrage desserré	Loser Verankerungs-rahmen	Loosened anchorage frame	Marco de anclaje de desapriete	Quadro di ancoraggio allentato	Quadro de amarração solto	Отсоединенная анкерная рама
	Levage	Heben	Hoisting	Elevación	Sollevamento	Elevação	Подъем
	Distribution	Katzfahren	Trolleying	Distribución	Ditribuzione	Distribuição	Перемещение по стреле
	Orientation	Schwenken	Slewing	Orientación	Rotazione	Rotação	Поворот
	Translation	Kranfahren	Travelling	Traslación	Traslazione	Translação	Перемещение крана
kVA	Puissance nominale	Nennleistung	Rated power	Potencia nominal	Potenza nominale	Potência nominal	Номинальная мощность
	Nous consulter	Auf Anfrage	Consult us	Consultarnos	Consultateci	Consultar-nos	Проконсультируйтесь у нас
	Document commercial non contractuel. Pour toute information technique se référer à la notice correspondante.	Unverbindliches Vertriebsdokument. Für technische Informationen, siehe die entsprechenden Anweisungen.	This commercial document is not legally binding. For any technical information, please refer to the corresponding instructions.	Documento commercial no contractual. Para cualquier información tecnica, ver la noticia correspondiente.	Documento commerciale non vincolante, per tutte le informazioni tecniche fare riferimento al catalogo istrusioni.	Documento comercial não contratual. Para qualquer informação técnica complementar consultar as respectivas instruções.	Этот коммерческий документ не является юридически обязательным. Для получения технической информации, см. соответствующие инструкции.

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Réf. MD 365 B L16 2003 48 - 10

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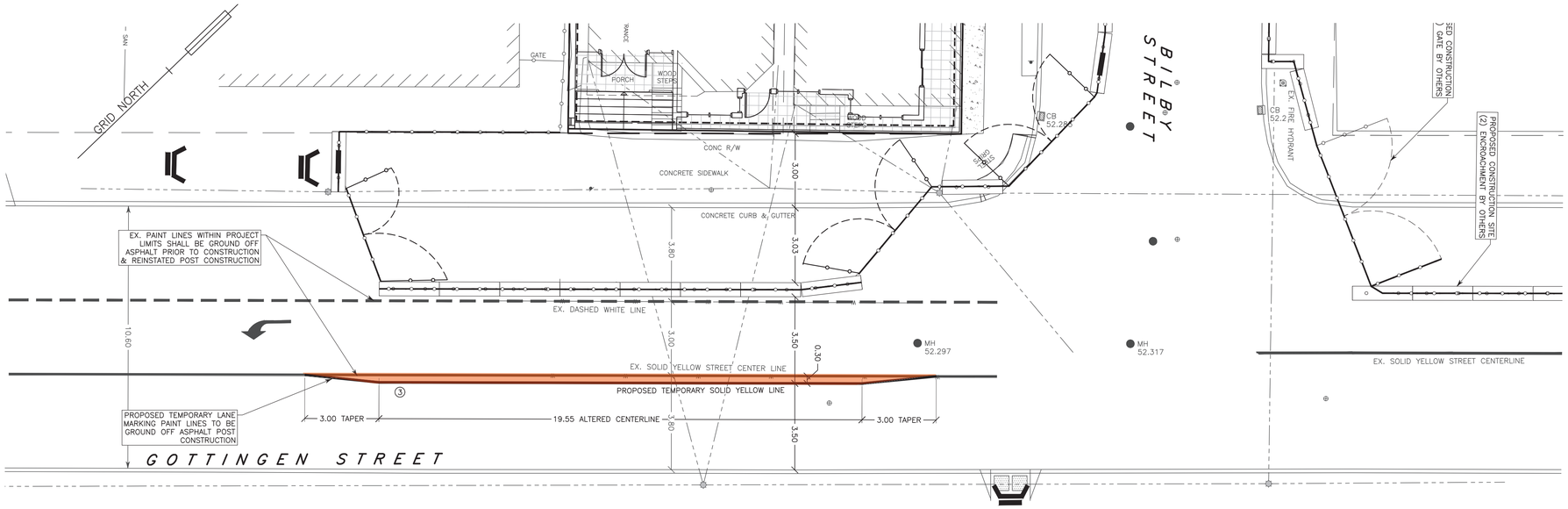
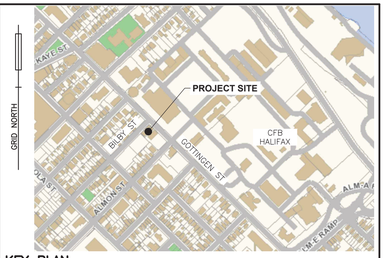
Appendix R – Line Painting Plan

PAVEMENT MARKINGS				
IDENTIFICATION	TYPE	WIDTH	COLOUR	QUANTITY
①	STOP BAR	450 mm	WHITE	N/A
②	CROSSWALK LINE	200 mm x 2	WHITE	N/A
③	SINGLE CENTRELINE	100 mm NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	25.55m
④	DOUBLE CENTRELINE	100 mm x 2 NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	N/A
⑤	SOLID ℄ WITH BROKEN 3x6 LINE	100 mm	YELLOW	N/A
⑥	LANE & BIKE LINES	100 mm	WHITE	N/A
⑦	BROKEN LINE 3x3	100 mm	WHITE	N/A
⑧	BROKEN LINE 3x6	100 mm	WHITE	N/A
⑨	BIKE LANE DASHED LINE 1.5x1.5	100 mm	WHITE	N/A
⑩	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	YELLOW	N/A
⑪	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	WHITE	N/A
⑫	ARROW	3/4 TAC SIZE	WHITE	N/A
⑬	RESERVED LANE SYMBOL	3/4 TAC SIZE	WHITE	N/A
⑭	BIKE SYMBOL		WHITE	N/A
⑮	SHARED USE LANE SYMBOL		WHITE	N/A
⑯	ZERBA CROSSWALK	600 mm	WHITE	N/A



EX. PAINT LINES WITHIN PROJECT LIMITS SHALL BE GROUND OFF ASPHALT PRIOR TO CONSTRUCTION & REINSTATED POST CONSTRUCTION

PROPOSED TEMPORARY LANE MARKING PAINT LINES TO BE GROUND OFF ASPHALT POST CONSTRUCTION



KEY PLAN

LEGEND

EXISTING		PROPOSED
25.0	CONTOUR LINE	25.0
⊗/⊗BF	CURB STOP/GATE/BUTTERFLY VALVE	⊗/⊗BF
◎	FIRE HYDRANT	◎
◁	CONCRETE THRUST BLOCK	◁
<	SIAMESE CONNECTION	<
▦/▨/●/□	CATCH BASIN/PIT	▦/▨/●
⟩— — — —⟨	CULVERT	⟩— — — —⟨
/ RD	ROCK LINING/DAM	/ RD
/ RW	ROCK WALL/RETAINING WALL	/ RW
≫—⊙/⊙	POWER POLE & ANCHOR/LIGHT STANDARD	≫—⊙/⊙
✹/○	TREE	✹/○
▾/⊖	STREET SIGN/PARKING METER	▾/⊖
× 131.82	ELEVATION/GRADE	125.00 × / 125.00
▚	TEST PIT	
⟶ / S⟶	DRAINAGE/SWALE FLOW DIRECTION	⟶ / S⟶
W ⊗	WATER MAIN/SERVICE	W ⊗
● SAN	SANITARY MANHOLE & PIPE	● SAN
○ STM	STORM MANHOLE & PIPE	○ STM
SAN/STM	COMBINED PIPE	SAN/STM
GAS	GAS LINE	GAS
FL	100YR. FLOOD LIMIT	FL
	GUARD RAIL	
○ C	UNDERGROUND CONDUIT	○ C
— — —	OVERHEAD WIRES	— — —
— —	PROPERTY LINE/BOUNDARY	— —
—○—○—	FENCE	—○—○—
▨	BUILDING	▭
— ·· —	TOP OF SLOPE	— ·· —
— · —	TOE OF SLOPE	— · —
⌒⌒⌒	TREELINE	⌒⌒⌒
	LIMITS OF DISTURBANCE	— — —
	TACTILE PEDESTRIAN PLATES	▩
	PROJECT SAFETY SIGNAGE	▬
	ORANGE SAWHORSE BARRICADE	⊓

NOTES

1. THIS PLAN IS IN METRIC.

APPROVED BY

TRAFFIC AUTHORITY DATE

FOR THE APPROVAL OF A ALTERED CENTERLINE ONLY. ALL OTHER ASPECTS OF THIS TEMPORARY TRAFFIC CONTROL PLAN MUST FOLLOW THE TEMPORARY CONTROL MANUAL, LATEST EDITION.

No.	YY/MM/DD	Revision Description	Appr'd
1	22/04/08	REVISED AS PER HRM COMMENTS	
0	21/12/22	ISSUED FOR REVIEW	

DATE
G.K. MacLean
8978

SDMM
Servant, Dunbrack, McKenzie & MacDonald Ltd.
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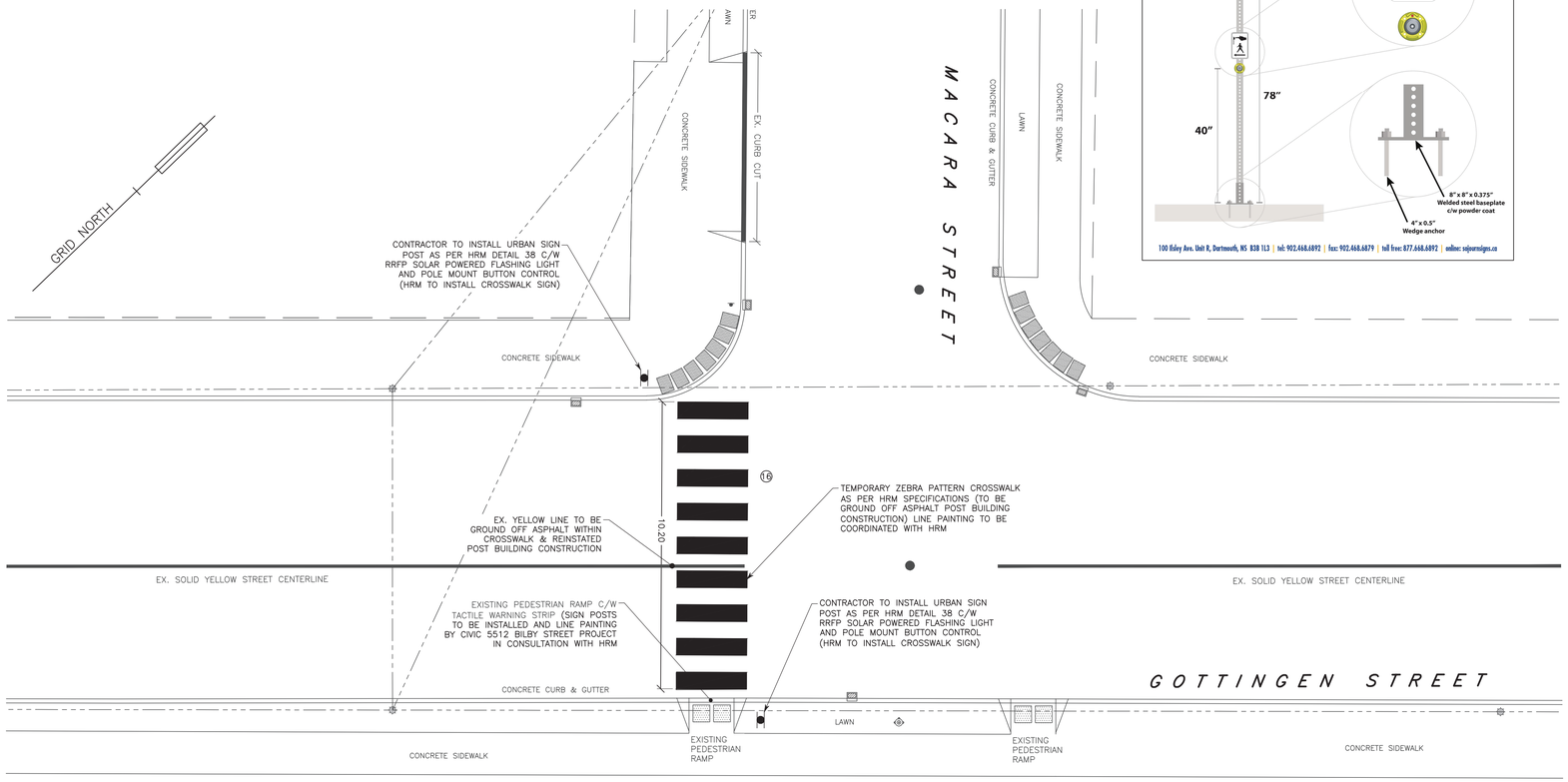
MULTI-UNIT RESIDENTIAL BUILDING
5512 BILBY STREET
HALIFAX, NOVA SCOTIA

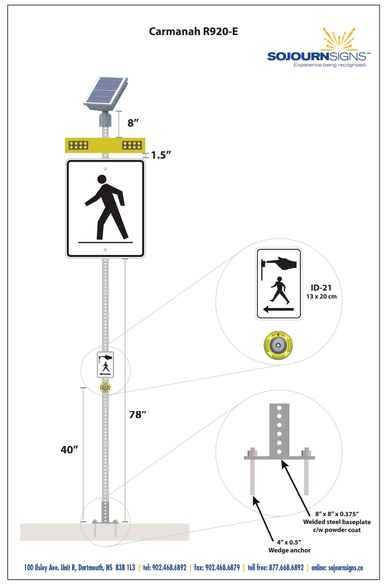
LINE PAINTING SCHEMATIC (1)

Date DECEMBER 22, 2021	Drawn D. ANDERSON	Project No. FILE NO. 1–1–508 (36495)
Scale 1:100	Engineer G. MACLEAN	Plan No.
Reference 36641	Approved G. MACLEAN	Drawing Name R3
Surveyed SDMM	Sheet	

0m 1 2 4 6 8 10m

PAVEMENT MARKINGS				
IDENTIFICATION	TYPE	WIDTH	COLOUR	QUANTITY
①	STOP BAR	450 mm	WHITE	N/A
②	CROSSWALK LINE	200 mm x 2	WHITE	N/A
③	SINGLE CENTRELINE	100 mm NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	N/A
④	DOUBLE CENTRELINE	100 mm x 2 NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	N/A
⑤	SOLID ℄ WITH BROKEN 3x6 LINE	100 mm	YELLOW	N/A
⑥	LANE & BIKE LINES	100 mm	WHITE	N/A
⑦	BROKEN LINE 3x3	100 mm	WHITE	N/A
⑧	BROKEN LINE 3x6	100 mm	WHITE	N/A
⑨	BIKE LANE DASHED LINE 1.5x1.5	100 mm	WHITE	N/A
⑩	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	YELLOW	N/A
⑪	HATCH	100 mm LANE LINES WITH 600 mm HATCH LINES, 6.0 m SPACING	WHITE	N/A
⑫	ARROW	3/4 TAC SIZE	WHITE	N/A
⑬	RESERVED LANE SYMBOL	3/4 TAC SIZE	WHITE	N/A
⑭	BIKE SYMBOL		WHITE	N/A
⑮	SHARED USE LANE SYMBOL		WHITE	N/A
⑯	ZERBA CROSSWALK	600 mm	WHITE	10.20m

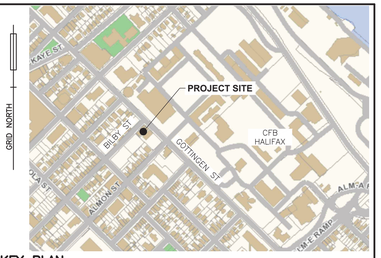




CONSTRUCTION NOTES:

DEVELOPER AND CONTRACTOR TO NOTE REQUIRED WORK FLOW FOR NEW CROSSWALK INSTALLATION WITH HRM.

1. URBAN SIGN POST TO BE INSTALLED BY CONTRACTOR IN CONSULTATION WITH HRM ENGINEERING STAFF.
2. HRM SIGN SHOP TO INSTALL AND BAG NEW CROSSWALK SIGNAGE; HRM ENGINEERING TO COORDINATE.
3. CONTRACTOR TO GRIND OFF EXISTING YELLOW CENTERLINE, INSTALL NEW ZEBRA PAINT LINES AND REMOVE BAGS FROM CROSSWALK SIGNAGE IN CONSULTATION WITH HRM ENGINEERING STAFF.
4. CONTRACTOR TO INSTALL RRFP ON BOTH URBAN SIGN POSTS IN CONSULTATION WITH HRM ENGINEERING STAFF.



KEY PLAN

LEGEND

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

NOTES

1. THIS PLAN IS IN METRIC.
2. EXISTING CONDITIONS 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.

APPROVED BY

TRAFFIC AUTHORITY DATE

FOR THE APPROVAL OF A TEMPORARY CROSSWALK ONLY, ALL OTHER ASPECTS OF THIS TEMPORARY TRAFFIC CONTROL PLAN MUST FOLLOW THE TEMPORARY CONTROL MANUAL, LATEST EDITION.

No.	YY/MM/DD	Revision Description	Appr'd
0	22/04/08	REVISED AS PER HRM COMMENTS	

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA — DATE — G.K. MacLean — 8978

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LINE PAINTING SCHEMATIC (2)

Date: APRIL 8, 2022	Drawn: D. ANDERSON	Project No.: FILE NO. 1-1-508 (36495)
Scale: 1:100	Engineer: G. MACLEAN	Plan No.:
Reference: 36641	Approved: G. MACLEAN	Drawing Name: R4
Surveyed: SDMM	Sheet:	

0m 1 2 4 6 8 10m