SOUTH VILLAGE PHASE 2 THE SOUTH TOWER 5616 SOUTH STREET

Excavation and Construction

Job No. 35539

CONSTRUCTION MANAGEMENT PLAN

0	JAN 2021	ISSUED FOR REVIEW
REVISION #	DATE	DESCRIPTION





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Report Prepared by G.K. MacLean, P. Eng. In consultation with the landowner, developer, contractor, and traffic control company



Section 1: Introduction

1.1: Project Description and Objectives

Templeton Properties is planning to proceed with phase 2 of their South Village development. The proposed South Tower will be located at 5616 South Street, currently a surface parking lot with access from South Street. The proposed South Tower building is planned to be a 7-storey 101-unit multi residential apartment building with 4,000SF of ground floor commercial space. The building is planned to have 2.5 levels of underground parking which will connect to the adjacent Vuze parking garage (South Village, Phase 1 or former Fenwick Tower). This CMP has been prepared to address excavation, services and building constriction.

Where the building is planned to be set at the street line, for public safety during site excavation and construction, we are proposing to hoard off the sidewalk directly adjacent to the project and a portion of the street lane for a truck layby. A portion of the on street parking opposite the project will be closed to make room for an altered centreline which will maintain two-way bus traffic on South Street. This allows the encroachment area to be wide enough to accommodate a concrete pump truck and boom truck in front of the project to help minimize construction timelines. The sidewalk will be closed in front of the project, and to aid with pedestrian traffic, we are proposing a temporary marked crosswalk, in front civic 5620 (The James Building) providing direct access to the sidewalk opposite South Street.

The project borders residential properties, the Vuze and James Buildings to the West and McKeen Manor to the East. To the south it borders the Fenwick Medical building, a commercial building fronting on Fenwick Street that houses the Fenwick Medical Center, Shoppers Drug Mart, Fenwick Pro, Canada Post and other businesses. North of the property across South Street is the Holy Trinity Cemetery. All neighbouring properties will remain undisturbed throughout construction 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.

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1.2: Project Contact Information

The project team for the proposed development consists of:

Role	Name	Contact	Address	Phone
Developer	Anmet Holdings Limited	Joe Metlege	5599 Fenwick Street, Suite 102, Halifax, NS B3H 1R1	(902) 488-7081
Construction Manager	Templeton Properties	Amanda Splonic	5599 Fenwick Street, Suite 102, Halifax, NS B3H 1R1	(902) 830-5590 24 Hr Emergency Contact
Site Superintendent	Templeton Properties	Neil Ingraham	5599 Fenwick Street, Suite 102, Halifax, NS B3H 1R1	(902) 830-9265
Site Contractor	Atlantic Road Construction and Paving	Greg Macdonald	6 Belmont Avenue, P.O. Box 89 Eastern Passage, NS, B3G 1M7	(902) 830-6411
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		51 Duke Street, Bedford, NS B4A 2Z2	(902) 835-2304

Section 2: Project Schedule and Logistics

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

2.1: Schedule

Project Phase	Start Date		End Date	Time Period
Rodent Control Program	Jan 14, 2021	-	Jan 28, 2021	2 weeks
Demolition	n/a	-	n/a	n/a
Excavation	Feb 1, 2021	-	May 14, 2021	3.5 Month
Substructure	May 1, 2021	-	Jul 30, 2021	3 Month
Superstructure	Jul 1, 2021	-	Oct 31, 2022	16 Months
Flat Works	Sep 1, 2022	-	Sep 30, 2022	1 Month
Service installs	Jul 3, 2021	_	Jul 31, 2021	1 Month
Service Abandonments	Jul 3, 2021	_	Jan 4, 2021	2 days

2.2: Key Dates

Take-over of encroachment
 Finish encroachment
 Duration of encroachment:
 Tebruary 1, 2021
 October 31 2022
 Duration of encroachment:
 20 months

Temporary Lane Closures:

o Service work July 2021 (weekends only)

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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 15 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, their approval will take longer than 15 days; general site work must adhere to the Noise By-Law. Service work may be permitted to take place afterhours.

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; and
- I) HRM TCM Supplement.
- m) G-200 Grade Alteration and Stormwater Management
- n) Admin Order 2018-005-ADM regarding encroachments



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 centreline along South Street throughout all phases of construction. Two-way vehicular traffic will be maintained with two 3.5m wide travel lanes to accommodate local bus traffic. Only during installation of the tower crane, service work and removal of the tower crane do we anticipate short term temporary road closures to vehicles being required.

4.2: Haul Route and Staging Areas

The truck Haul Route Plan has been prepared by the traffic control company and is provided in the appendix.

The selected route is intended to minimize traffic congestion and maximize pedestrian safety. During the excavation and construction vehicles will enter and exit the site at the gate locations which will be clearly marked for function.

Material and concrete deliveries shall be contained within the encroachment area. We anticipate delivery trucks driving with traffic into the encroachment area, refer to appendix for delivery schematics.

4.3: Vehicular Traffic Notifications

Should any traffic disruptions be required, notifications will be distributed to properties in the impacted area a minimum of 5 days in advance of vehicular traffic closures.

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

Directly in front of to the project, on the south side of South Street, is a 'no parking zone' there is no on street public parking here. Opposite the site, there are eleven (11) unmetered on street parking spaces on the north side of South Street; these will need to be temporarily closed to accommodate the altered centreline.

It is noted that passenger vehicles are not permitted to park within the encroachment area.

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

We do not foresee any additional curb or public space to offset the net lose of public parking.

4.6: Bus Stops

Bus service travelling along South Street will remain with two 3.5m wide travel lanes.

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There is a bus stop on the north side of South Street east of the project that will remain.

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 excavation and construction, the project will close the sidewalk adjacent to the development. This is to ensure that limits of excavation and building construction are a safe distance from pedestrians. We will encourage pedestrians to use the sidewalk across the street by installing a temporary marked crosswalk in front of civic 5620 and the existing marked crosswalks at the intersections of Queen and South Streets as well as South Park and South Streets.

5.1: Pedestrian Protection

Pedestrians will be protected by distancing them from the project, F-type concrete barriers with opaque rigid fencing mounted above shall delineate the encroachment area. Refer to the appendix for examples of the barriers.

5.2: Pedestrian Safety

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

5.3: Pedestrian Traffic Notifications

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

5.4: Visually Impaired Persons

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

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

5.5: Accessibility

High visibility signage will be used to assist pedestrians to easily navigate 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 on site for pedestrians, showing the detoured pedestrian route is not anticipated for this project given that the pedestrian volumes are localized to the neighbouring buildings.

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 location and lack of adjacent businesses on South Street.

Section 6: Encroachments & Disruptions

For public safety during site excavation and building construction we are proposing that the project compound incorporate the public sidewalk and portion of the street lane. This will move pedestrians to the opposite sidewalk of this street. The encroachment is planned to be delineated by interlocking F-type concrete barriers complete with translucent ridged fencing. This encroachment is to keep the public away from the excavation zone of influence as well as provide additional room for form workers and deliveries within the encroachment.

Throughout the project, fencing will be situated to not obstruct vehicle sight lines.

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

6.1: Demolition

Building demolition is not required for this project.

6.2: Site Excavation

This includes the excavation and removal of common site material. The building is planned to have 2.5 levels of underground parking. If bedrock is found, the contractor will apply for a blasting permit and adhere to the HRM blasting by-law and conditions of the blasting permit. Alternatively, if a blasting permit can not be obtained the site's bedrock will be broken by a series of rock breakers to reach footing elevation.

6.3: Site Services Connection

This includes installation of new water and sewer laterals to their respective mains. The service installs will require modifications to the encroachment with temporary workplace signage incorporated (refer to the Traffic Control Plans (TCP) in the appendix), we are anticipating that the street will need to be closed to through traffic during these service installs. The target dates for this work are provided in the "Key Dates" section above with time of installations adhering to the Noise By-Laws noted above. The intent will be to complete this servicing work and reinstate the street as quickly as possible in order to minimize disruptions to the public. It is anticipated that weekend work will be required by HRM and Halifax Water for mainline tie-ins.

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.

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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 5 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 sidewalks within the encroachment area will be completely replaced. It is anticipated that sidewalks across the street will not be impacted by excavation or other construction activities. However, while efforts will be made to avoid damage, it is anticipated that some portions of existing curbs, gutters, and sidewalks may become damaged during the construction process which would require repairs or replacement. Pending HRM's review prior to and after construction and subject to damage due to construction activities, the developer acknowledges that items may require to be fully replaced rather than repaired. The developer also acknowledges that any costs incurred to repair or replace this public infrastructure are the responsibility of the owner.

For reinstatement timeline requirements, it is noted that asphalt, concrete curb and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 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 2 existing street trees in the public right-of-way directly adjacent to the project site. These HRM street trees are proposed to be removed as part of adjacent service renewal work. 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 marked crosswalk are both proposed for this project. Refer to the line painting plan in the appendix.

The altered centreline will require that the existing yellow paint line be ground off the street asphalt within the limits of work prior to the installation of the new altered yellow centreline. Note that this line painting will need to be ground off the asphalt once the encroachment is no longer required and original yellow replaced.

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The temporary marked crosswalk will require new pedestrian ramps installed at the curb line complete with tactile warning strips, new sections low back curb and urban signposts on each side of South Street. After these pedestrian ramps and signposts are installed HRM will install the required crosswalk signage covered with blackout bags. After the contractor paints the required crosswalk paint lines these blackout bags can be removed, and crosswalk put in service.

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 the site entrance behind the curb line to knock dirt free from truck tires with aim to reduce off tracking of site soils.

It is noted that where the developer plans to utilize the roadway for their encroachment the developer is responsible to clear snow from the street side of the jersey barriers refer to section 8.2 below.

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.

It is noted that where the developer plans to utilize the roadway for their encroachment the developer is responsible to clear snow from the street side of the jersey barriers refer to section 8.2 below.

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 stormwater system in accordance with HRM By-law W-101 complete with appropriate fees to Halifax Water (HW). Sediment ponds may be shifted and positioned as desired by the site contractor during mass excavation however will generally be placed in localized low points within the building excavation.

7.7: Noise, Dust and Emission Control

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

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

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

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

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

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7.8: Rodent Control

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

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

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

Section 8: Site Protection & Hoarding

8.1: Barriers, Fences, and Gates

The encroachment will be delineated using concrete F-type jersey barriers complete with rigid fencing secured to the jersey barriers, total height of concrete barrier and fencing structure will be 1.8m or 6ft as per the noted administrative order. This fencing will be covered with a translucent 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. Construction traffic will utilize the proposed gates, gate will not be screened for safety reasons.

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

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

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

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

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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.

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. It is noted that during concrete operations that delivery trucks may need to back into the project compound; see concrete delivery schematic in the appendix.

8.2: Snow Removal

The developer 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 developer will be responsible to clear snow from outside the jersey barriers to keep the edge of the vehicle travel lane free and clear of snow and ice build up.

8.3: Emergency Access & 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.

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

8.4: Hoarding Aesthetics

The site hoarding will resemble that shown in the appendix; encroachment fee reductions are anticipated.

8.5: Sight Lines

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.

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

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

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

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

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

9.2: Transport Canada and Nav Canada Regulations

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

9.3: Aerodromes

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

Section 10: On-Site Safety and Security

10.1: Site Safety and Security Overview

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

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

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

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

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10.3: Emergency Access & Egress

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

10.4: Security Site Lighting

Security site lighting is not required for this project.

10.5: Smoking Areas

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

10.6: Fire Suppression Systems

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

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

Section 11: Pre-Construction Consultation & Meeting

11.1: Pre-CMP Community Consultation

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

11.2: Project Information and Contacts

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

11.3: Preconstruction Meeting

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

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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

2:\SDMM\35500-35599\35500\35539\CMP\35539 CMP (IFR)\5616 South Street - 35539 (IFR).docx

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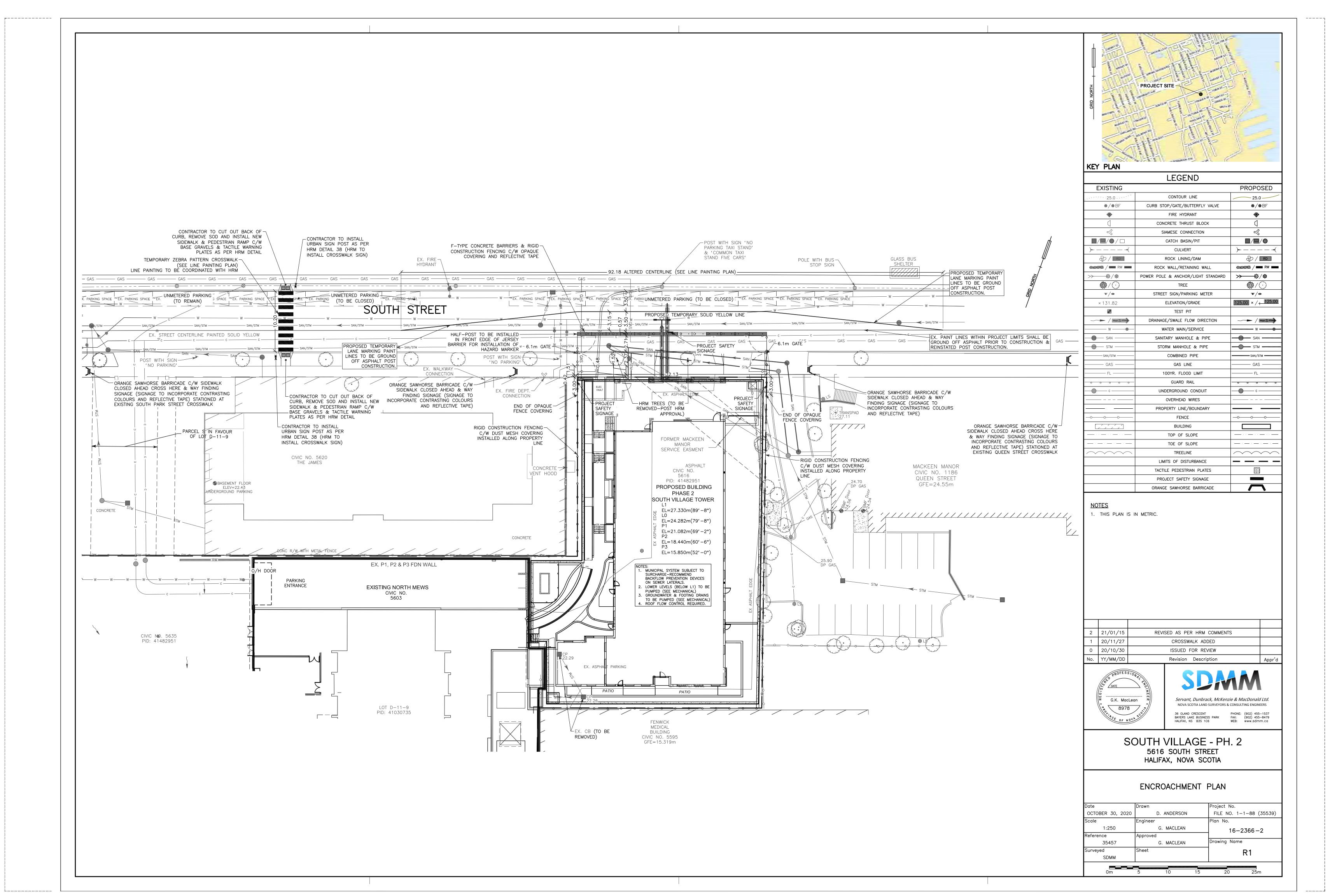
APPENDIX

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Appendix A – Encroachment Plan

Page | A Job No. 35539





Appendix B – Traffic Control Plans (TCP)

Page | B Job No. 35539

Crosswalk Installation Plan

Date: 2021-01-19 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: South Village - Phase 2, 5616 South St Contrator: ARCP Contact: Greg MacDonald, 902-830-6411

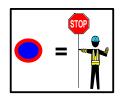
Comments:

Not to Scale

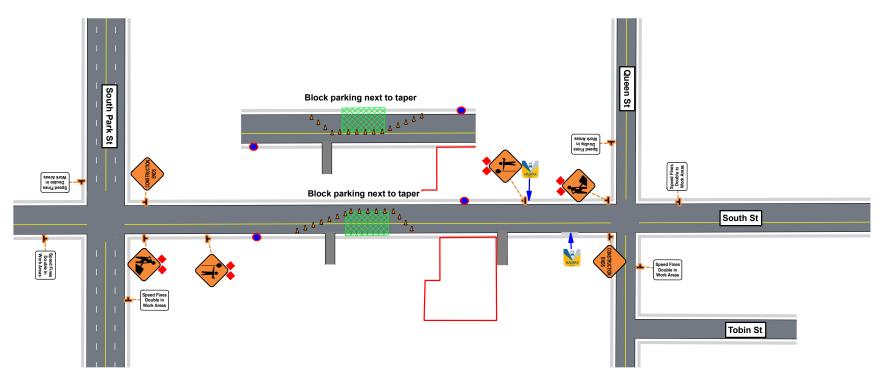
Application Guide C35

Traffic Control Plan for the Installation and Removal of Temporary Crosswalk

No Pedestrian impact expected







Legend

▲ Cone

Barrier Installation/Removal and Centerline Painting Plan

Date: 2021-01-19 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: South Village - Phase 2, 5616 South St Contrator: ARCP Contact: Greg MacDonald, 902-830-6411

Comments:

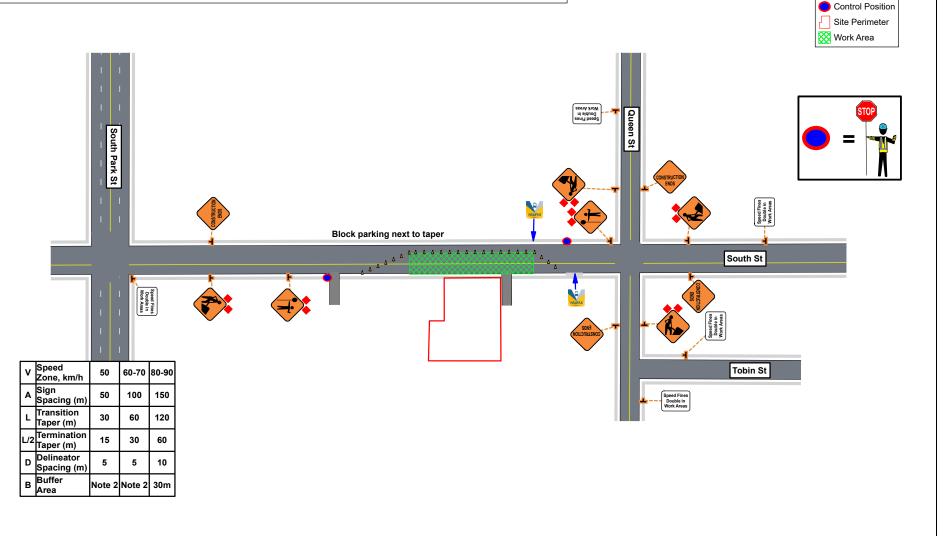
Not to Scale

Application Guide C35

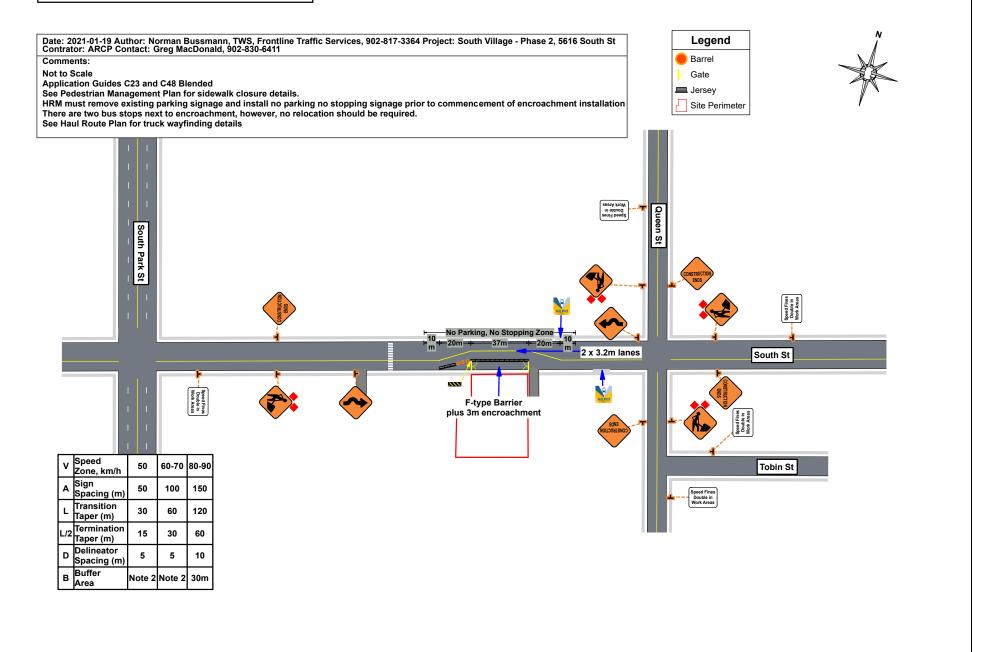
Traffic Control Plan for the Installation and removal of F-type barriers

and for the grinding off of current centerline and repaving of new centerline

No pedestrian impact



South Street Encroachment Plan



Service Lateral Installation Traffic Control Plan

Date: 2021-01-19 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: South Village - Phase 2, 5616 South St Contrator: ARCP Contact: Greg MacDonald, 902-830-6411

Comments:

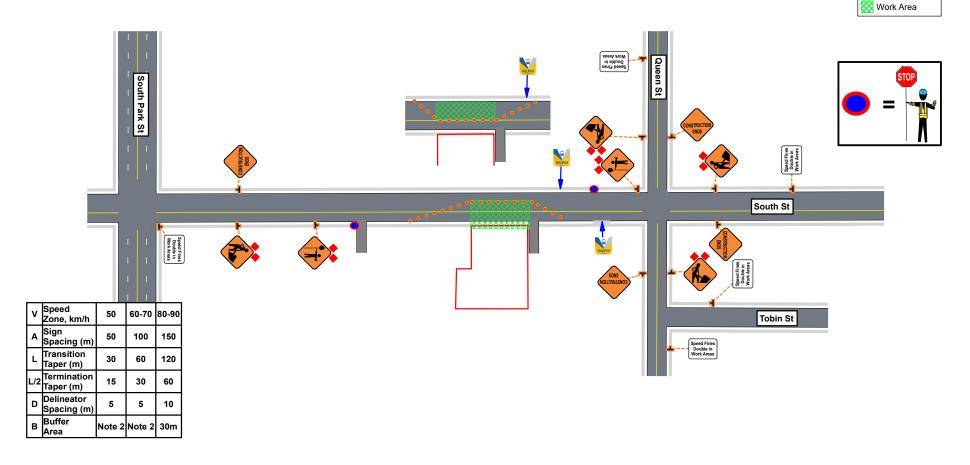
Not to Scale

Application Guide C35

Traffic Control Plan for the installation of service laterals and repaving of roadway







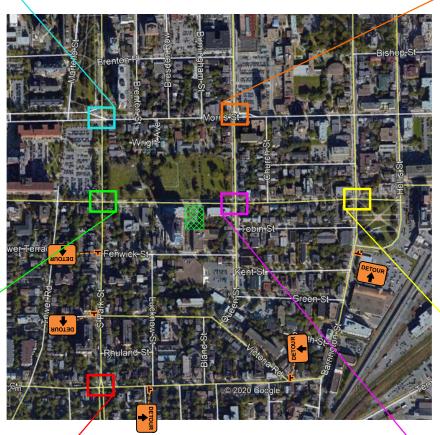
South Street Closure Plan Date: 2021-01-19 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: South Village - Phase 2, 5616 South St Contrator: ARCP Contact: Greg MacDonald, 902-830-6411 Legend Barrel Not to Scale Barricade Supervisor Application guide C114 Road Closure Plan for Service Lateral installations Site Perimeter Contractor to coordinated with Transit to close bus stops and detour buses. 💢 Work Area See Detour wayfinding map for signage placement details See Pedestrian Management Plan for sidewalk closure details South St Access to WCB must be maintained Residents in parking area to be given dashboard passes to gain access past closure **Tobin St** Fenwick St

South Street Closure Detour Wayfinding Signage Plan



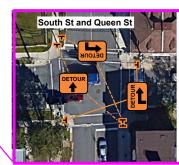










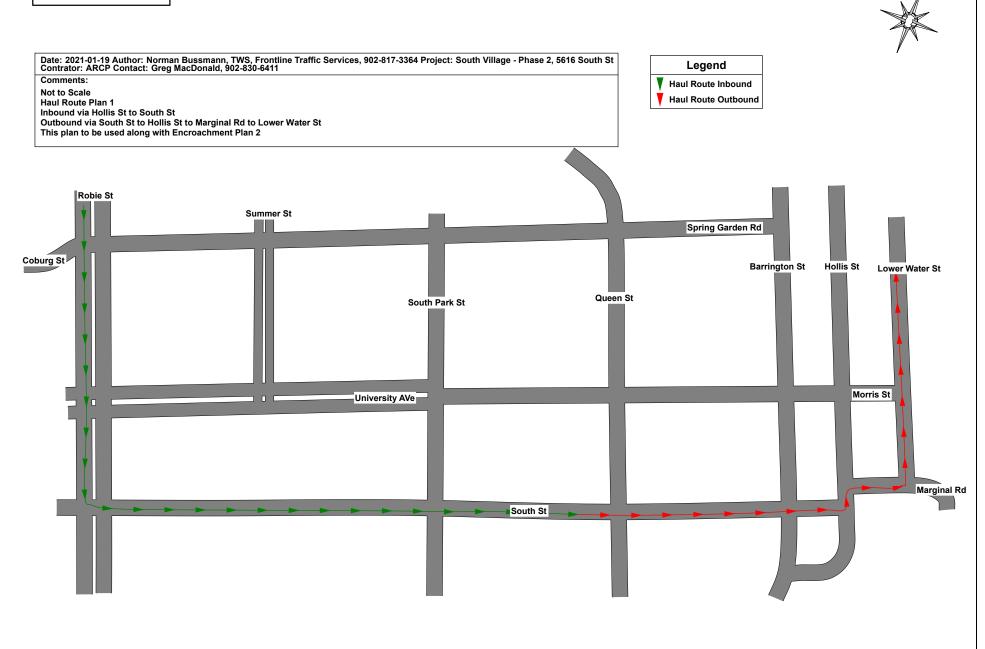




Appendix C – Haul Route Plan

Page | C Job No. 35539

Haul Route Plan



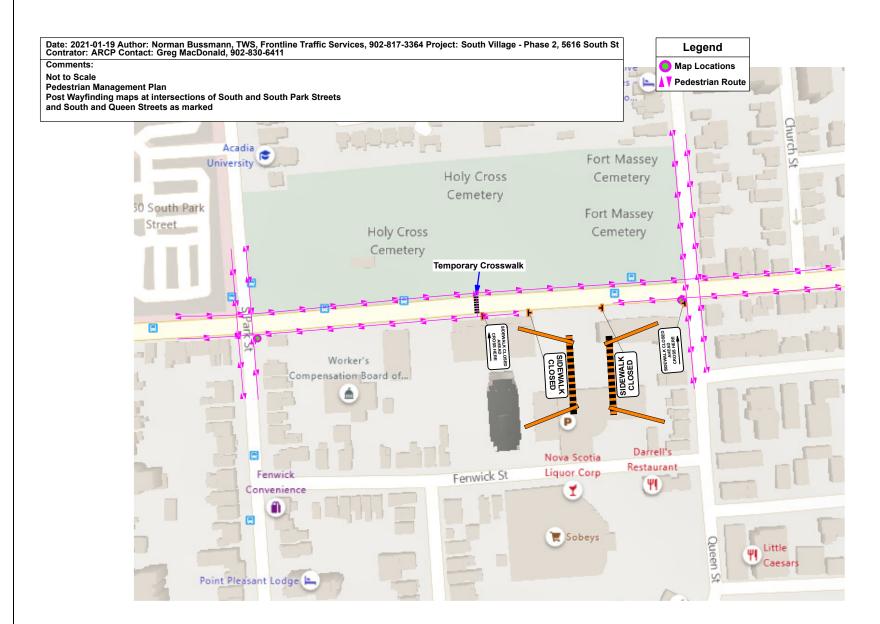


Appendix D – Pedestrian Management Plan (PMP)

Page | D Job No. 35539

Pedestrian Management Plan

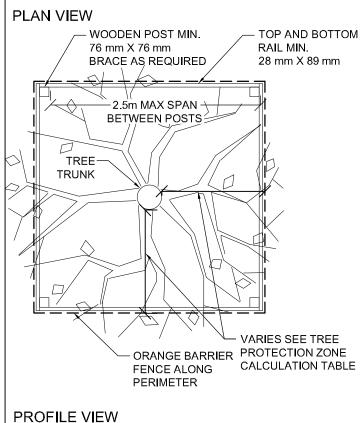






Appendix E – HRM Tree Detail

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TREE PROTECTION ZONE CALCULATION TABLE		
TRUNK	MINIMUM PROTECTION DISTANCE	
DIAMETER	REQUIRED (MEASURE FROM THE	
(DBH)	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:

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

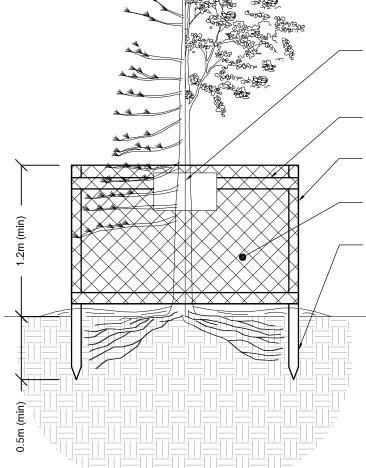
SIGN, ON TWO (2) SIDES, TO READ:
 TREE PROTECTION ZONE DO
 NOT REMOVE FENCE DURING
 CONSTRUCTION

TOP AND BOTTOM RAIL MIN. 28mm X 89mm

WOODEN POST MIN. 76mm X 76mm BRACE AS REQUIRED

ORANGE BARRIER FENCE ALONG PERIMETER

WOOD OR METAL POST BELOW GRADE. IF METAL IS SPECIFIED THE WOOD POST MUST BE BOLTED TO THE METAL POST



H\(\text{LIF}\(\text{X}\)

STANDARD DETAIL

TREE PROTECTION ZONE & BARRIER

DATE: 2019

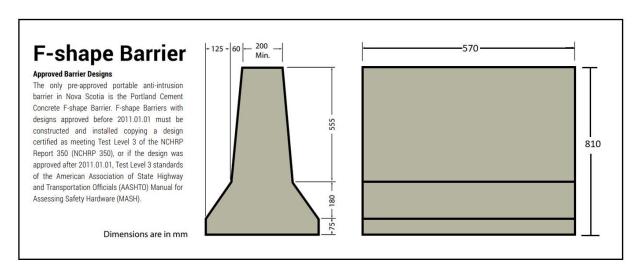
SCALE: REFERENCE: APPROVED

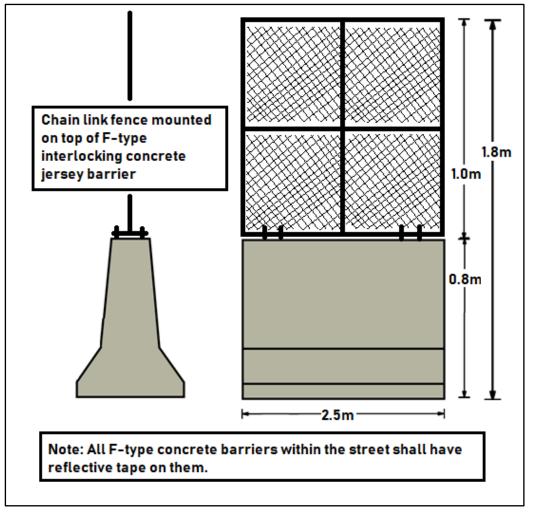
FIG NO:

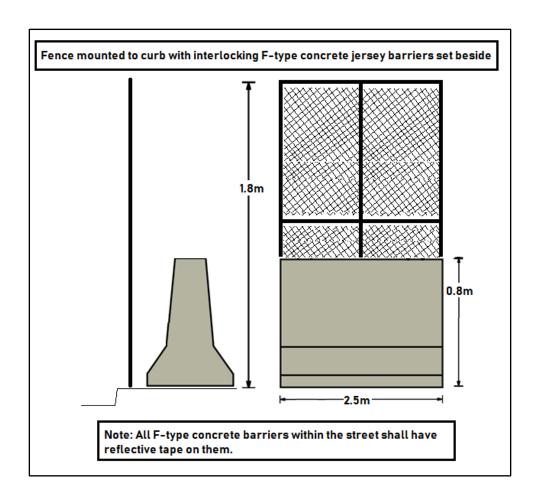


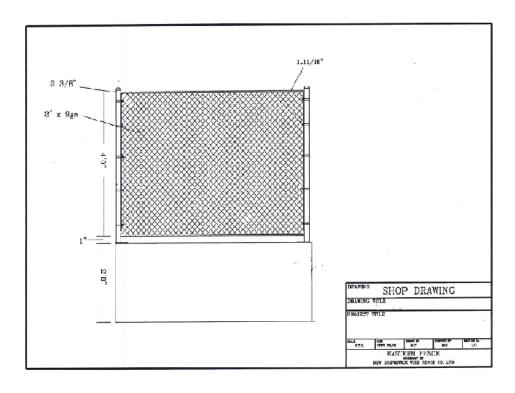
Appendix F – Barrier, Fence & Gates Information

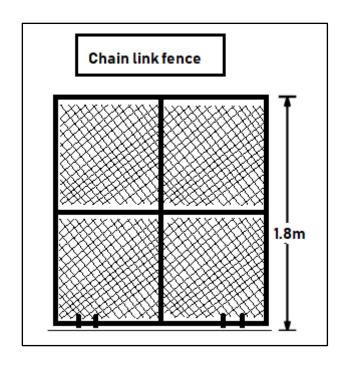
Page | F Job No. 35539

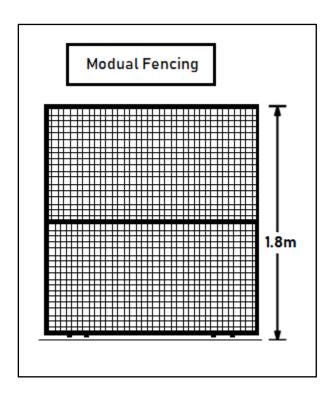


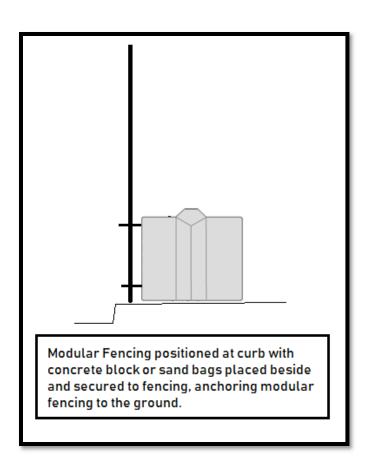


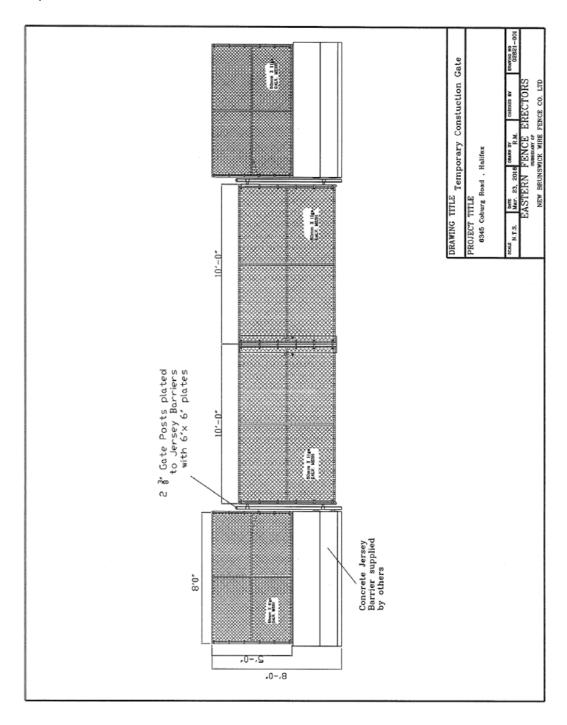














Appendix G – Hoarding Information

Page | G Job No. 35539

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

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

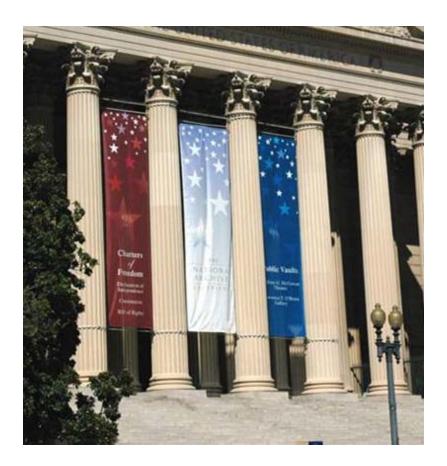
UltraMesh Eclipse is UV printable for project renderings and is typically used for building and fence graphic wraps. The product is available in widths of 126" and 196".

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

Tarp Option



Print Banner Option





Technical Data Sheet

UltraMesh® Eclipse®

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

Material Details

CHARACTERISTICS	TEST METHOD	METRIC	ENGLISH
Base Fabric	100% PES	1000D×1000D	
Construction		1	2×12
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 170°C	

Applications

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

www.ultrafleXX.com updated: 12/2016

Ultrafiex Systems Inc. Headquarters 203 Ketsey Lane, Suite E Tampa, FL 33519 P: (973)627-8608 Ernell: sales@Ultrafiexx.com Ultraflex Systems Inc. 1576 Sussex Tumpike, Bidg. 4 Randolph, NJ 07869 P: (973)627-8606 F: (973)627-8506 Email: sales@ultraflex.com Ultrafiex Europe Unit 1 Hardwick Road Industrial Park Great Granden Bedfordshire England SG19 38J Phone: (44)1767-677-100 Email: sales@ultraflexsurope.com Ultraflex México
Azafrán No. 112, Col. Granjas México
Del. Iztacalco, C.P. 08400, México D.F.
Tel: (55)91823632,3182 3608
01 800 822 52 31
Emait: sales mo@ultraflex.com

Ultraffex Guadalajara Av. Patria No. 2504 Loma Bonita Sur. Zapopan, Jalisco CP45086 Mexico Tel: (55)3312-049-857



Appendix H – Project Information Board

Page | H Job No. 35539



PROPOSED SOUTH TOWER

5616 SOUTH STREET

10 STOREY BUILDING

101 UNITS ON 7 RESIDENTIAL LEVELS

3 LEVELS UNDERGROUND PARKING

March 2021 – October 2022

Owner:

Templeton Properties 5599 Fenwick, Suite 102 Halifax, NS, B3H 1R1

Contact: Amanda Splonic – 902-830-5590

24 Hour Emergency contact

Contractor:

Atlantic Road Construction and Paving 6 Belmont Avenue, P.O Box 89, Eastern Passage NS, B3M 1M7 Contact: Greg Macdonald – 902-830-6411

Traffic Control:

Frontline Traffic Services
6 Belmont Avenue, P.O Box 89, Eastern Passage NS, B3M 1M7
Contact: Phil Pruneau – 902-818-5548

Rodent Control Company:

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



Appendix I – Project Safety Signage

Page | I Job No. 35539

NO TRESPASSING

CONSTRUCTION SITE To reduce risk of injury, • Hard Hat • Safety Shoes MUST be worn on this site.

RESTRICTED --- AREA ----

CONSTRUCTION WORK IN PROGRESS



Appendix J – Project Signage Specifications

Page | J Job No. 35539

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 K – Sample Traffic Notification Letter

Page | K Job No. 35539



PROPOSED MULTI-UNIT RESIDENTIAL BUILDING

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:

Atlantic Road Construction and Paving

6 Belmont Avenue, P.O. Box 89

Eastern Passage, NS

B3G 1M7

Phone: (902) 830-6411

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

Yours Truly,

Greg MacDonald

Atlantic Road Construction and Paving



Appendix L - Vehicular and Pedestrian Hazard Assessment

Page | L Job No. 35539

Project Date: Location: VEHICULAR & PEDESTRIAN HAZARD ASSESSMENT

	VEHICULAR & PEDESTRIAN HAZARD ASSESSMENT							
No.	Hazard:	Project Phase:	Vehicular Impacts:	Mitigation Methods:	Pedestrian Impacts:	Mitigation Methods:		
			Vehicles may enter project site and fall down excavation.	Place concrete barriers along travel ways. Concrete barriers and existing curbs to prevent vehicle entry.				
1	Excavation	Excavation	Vehicle weight may surcharge excavation, causing excavation wall failure.	Close sidewalks & driveways adjacent to project site, moving vehicles farther away from excavation.	Pedestrians may enter project site and fall down excavation.	Place concrete barriers/rigid fencing around entire project site.		
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.		
	neavy Machinery Operation		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 Pha	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 M - Community Consultation Records

Page | M Job No. 35539

COMMUNITY CONSULTATION MAP OVERVIEW

Project – 5616 South Street



Notification Letter

Date: ******

Building Construction Information Meeting

Dear Neighbour,

As you may be aware, we are planning an apartment building construction project located at 5616 South Street, Halifax.

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

Thank you.

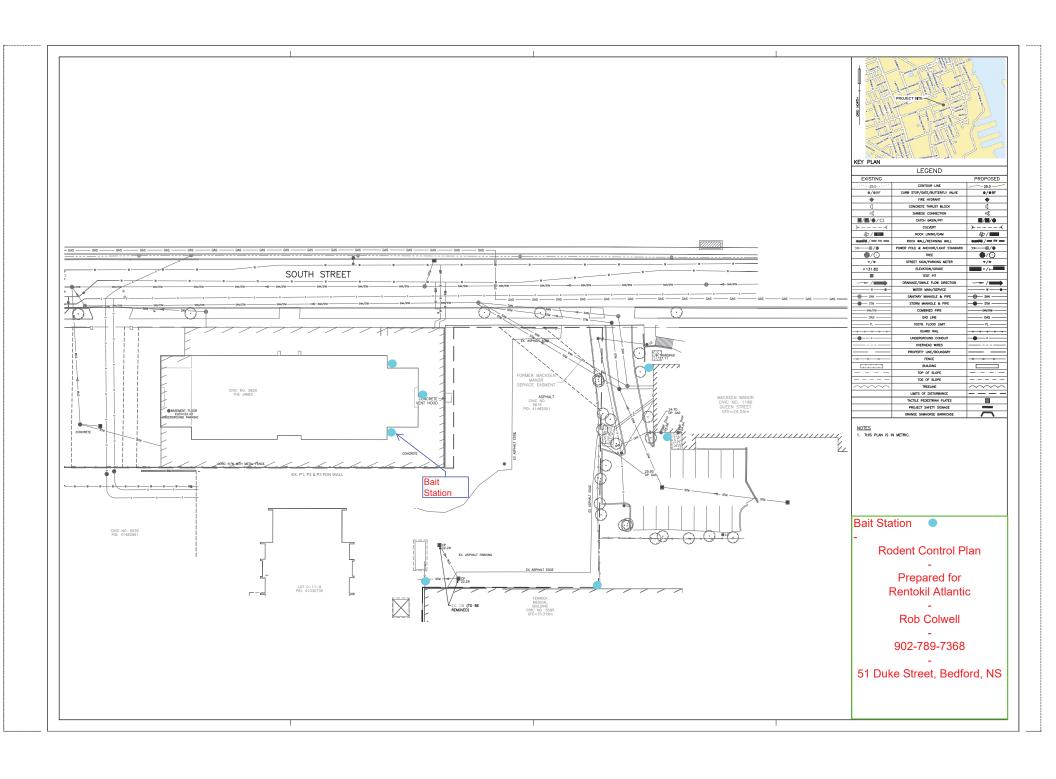
Joe Metlege

Email: info@templetonproperties.ca



Appendix N – Rodent Control Plan

Page | N Job No. 35539





THE MOST ADVANCED LOW-PROFILE BAIT STATION







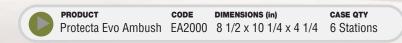
PRODUCT FEATURES:

- ▶ 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

T-Rex[™] rat trap or Mini-Rex[™] mouse trap

 \blacktriangleright Compatible with Sidekick® Load-N-Lock™ system





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www.belllabs.com

ALL-WEATHER







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% †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,

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 K₁ 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 Kr. 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.

READTHIS 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 bat 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 (Raitus norvegicus), Roof rat (Raitus raitus), Cotton mouse (Peromyscus gossypinus), Cotton rat' (Sigmodon hispidus), Deer mouse (Penimyscus maniculatus), Eastern harvest mouse' (Reithrodontomys humuli), Golden mouse' (Ochrotomys nuttalli), Polynesian rat' (Raitus exutans), 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 intestations. 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, trashport vehicles (ships, trains, aircraft), docks and port or terminal buildings and related structures around and associated with these sites. Fence and perimeter bailing, beyond 100 feet from a structure as defined above, is prohibited. This product must not be applied directly to food or feed crops.



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:

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: Wasfes 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:

BELLABORATORIES, INC.
3699 Kinsman Blvd.
Madison, WI 53704 U.S.A.
www.bellabs.com

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

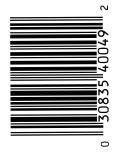
areas. Two blocks may be needed at points of very high activity. Maintain an uninterrupted supply of fresh bait for at least 15 days or until signs of mouse or meadow vole* activity cease.

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 bail stations and replenish as needed.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

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



User Safety Requirements

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

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish, birds and other wildlife. Dogs and predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply this product directly to water or to areas where surface water is present or 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.

587CB-9 MADE IN USA Product Code: CB4051 090415/09-15



DETEX®BLOX with LUMITRACK

SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA

Hazard Communication Standard 29 CFR 1910.1200 January 2016

DATE OF ISSUE:

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	Proprietary	100.00%
(Unlisted components are non-hazardous)		

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Ingestion: Non-Toxic Inhalation: Not applicable. Eve 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.

Trade Name: Detex Blox with Lumitrack Date Created: January 2016 Supplier: Bell Laboratories, Inc.

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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 Eve 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

Tan wax block Appearance/Color: Sweet grain-like Odor:

Odor Threshold: Not applicable, odor not associated with a hazardous material.

Not applicable, is not dispersible with water. pH:

Melting point: Not applicable Not applicable **Boiling point:**

Not applicable, does not contain components classified as flammable. Flash point:

Not applicable, is a solid. **Evaporation rate:** 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 1.13 g/mL @ 20°C **Relative Density:** 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

Trade Name: Detex Blox with Lumitrack Date Created: January 2016 Supplier: Bell Laboratories, Inc.

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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.

Trade Name: Detex Blox with Lumitrack

Supplier: Bell Laboratories, Inc.

Date Created: January 2016

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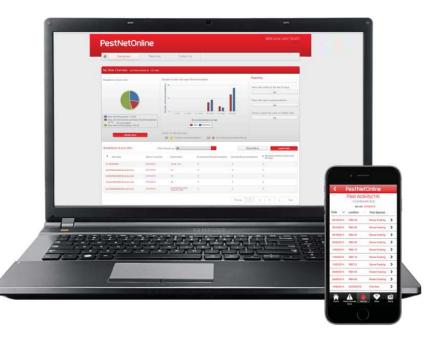
Rentokil

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

PestNetOnline

The complete online pest management and reporting solution

Randy Hobbs
Account Executive



What is PestNetOnline?

Online reporting and analysis of all pest activity

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



Who is PestNetOnline for?

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

Offering:

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

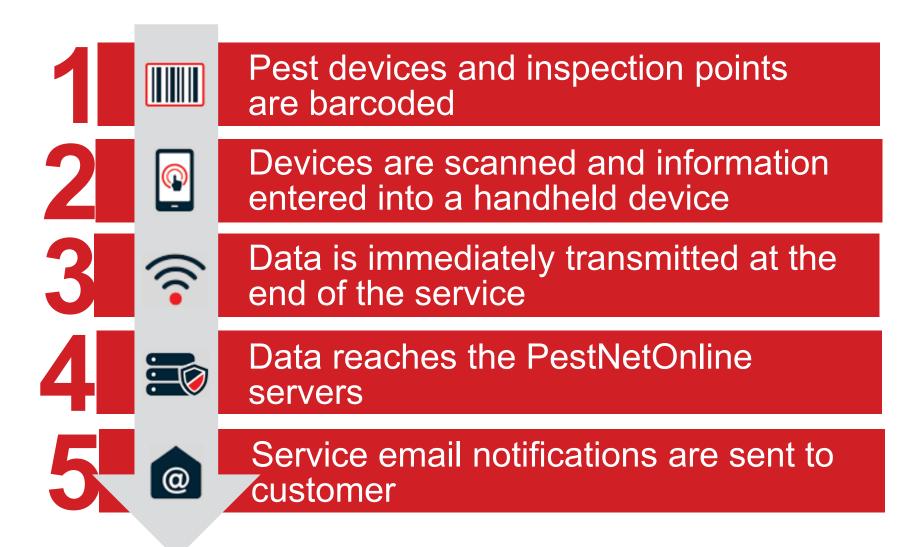








How PestNetOnline works...



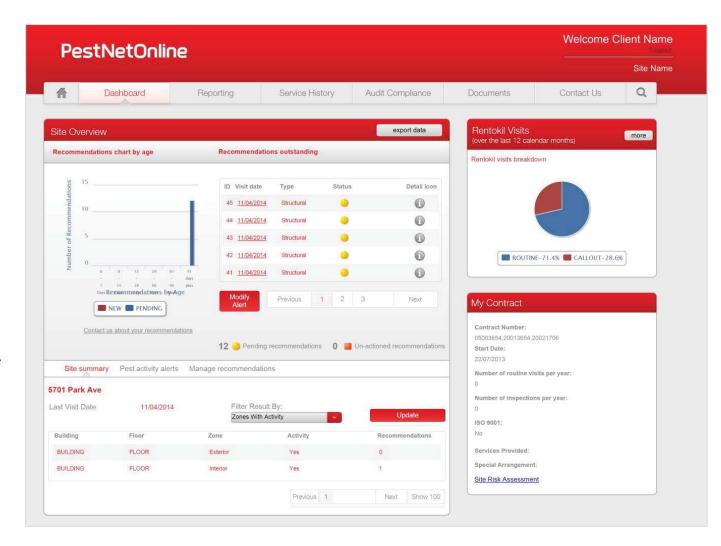
PestNetOnline

Information is displayed in PestNetOnline and mobile applications

PestNetOnline

Single site locations

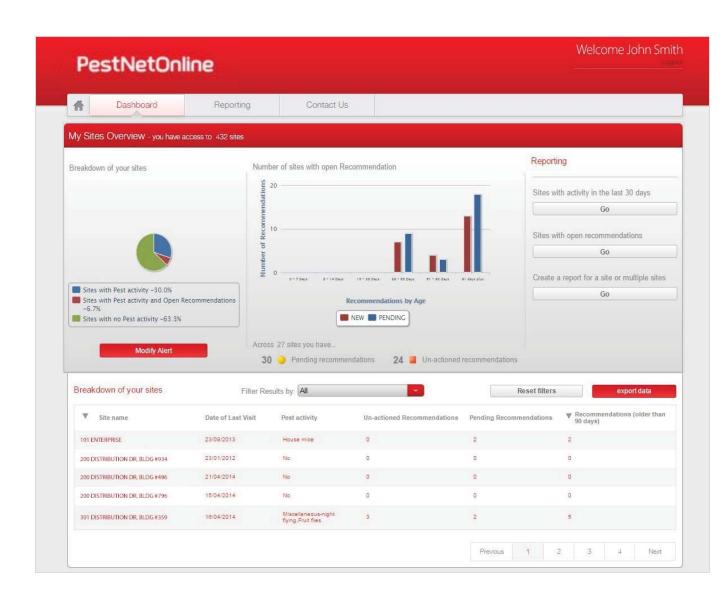
- Provides a comprehensive review of all visit details
- Pest Activity and Recommendation charts summarizing at a high level all issues
- Visit Filters allowing you to quickly locate series of visit and types of visits
- Review and reprint any Proof of Service
- Navigation tabs take you directly to Tasks,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



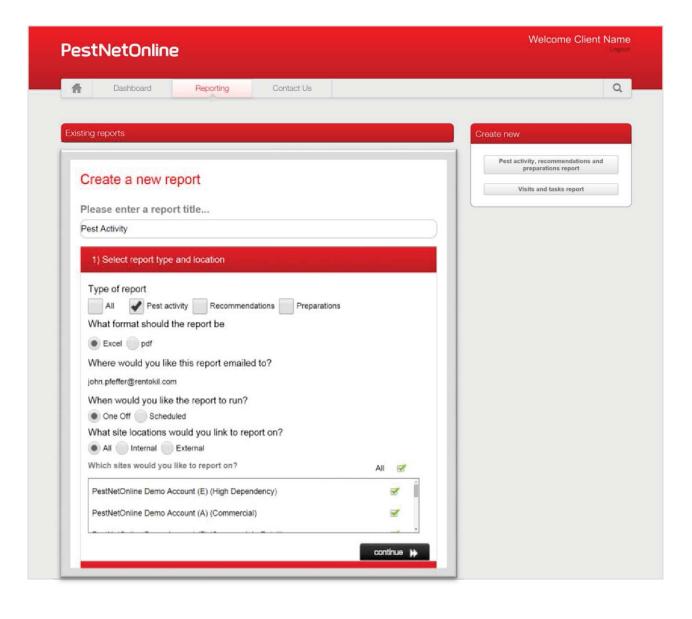
PestNetOnline

For multi site locations

- A dashboard that summarizes all activity
- My Sites allows you to see an overview of your locations
- Navigation shortcuts allowing you to quickly and effortlessly research visit activity
- Link to all related information
- Export data for custom analysis

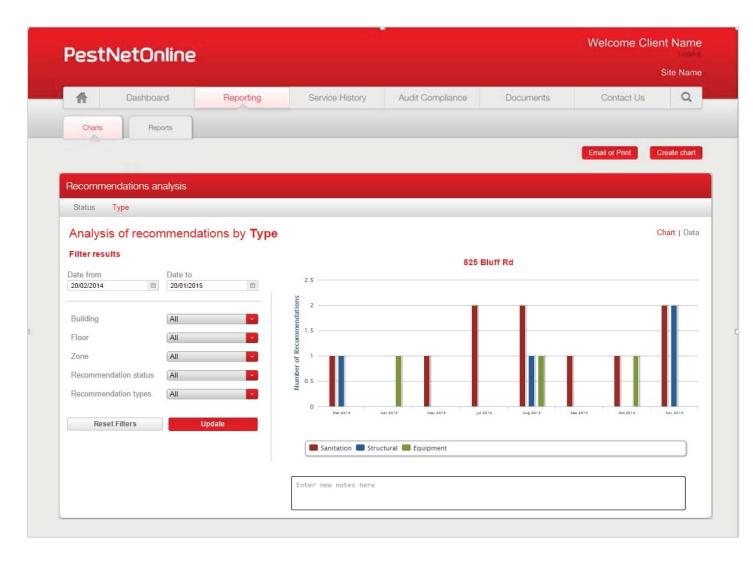


PestNetOnline



Analysis and reports

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

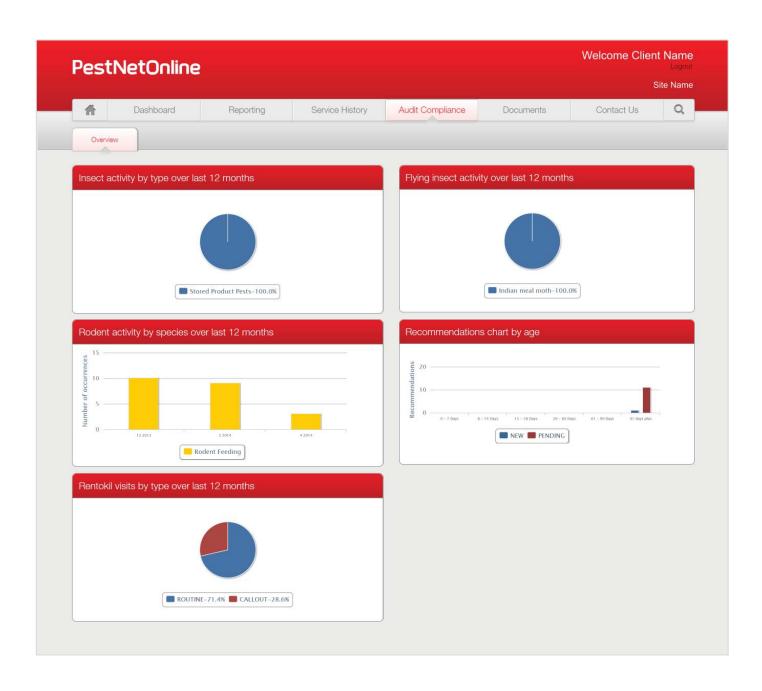


- Options to review an entire worksite, or specific Buildings / Floor / Zones within your worksite
- Feature rich with multiple date range options
- Provides quick, ad-hoc snapshot analysis on all pest activity
- Add commentary to charts



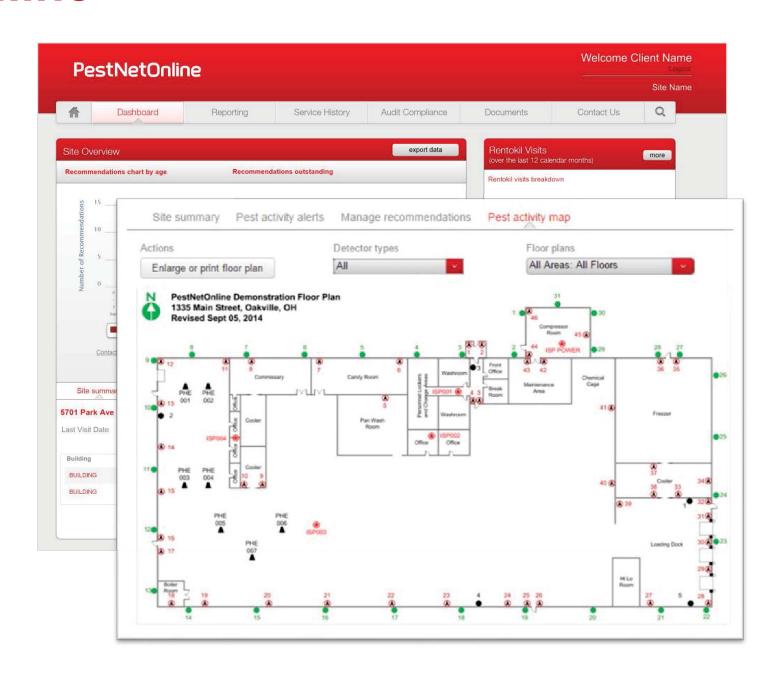
For high dependency customers

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

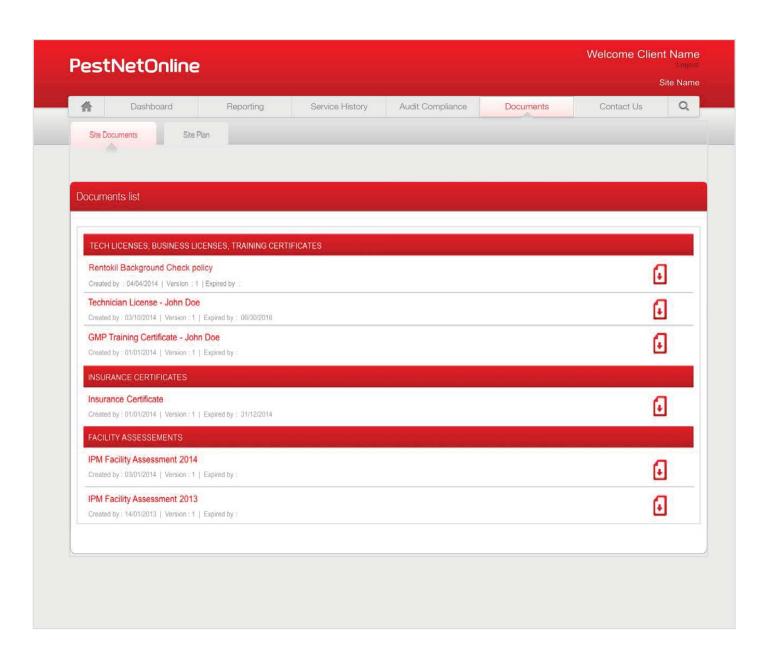


Site plans for high dependency and commercial customers

- Provide a interactive, graphic representation of device location
- Filters allow you to locate specific types (Mechanical Rodent Traps, Pheromone, etc.) quickly and easily
- Site Maps may also be printed if desired



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



PestNetOnline Smartphone App

Home Screen

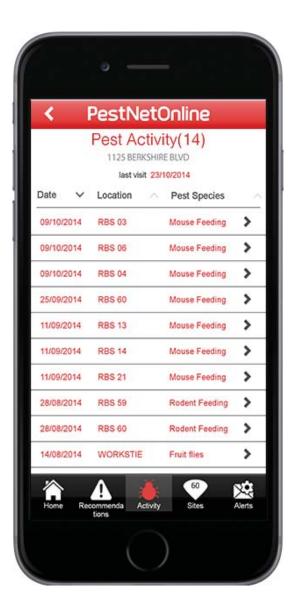
- Open recommendations
- Instances of activity (last 90 days)

Recommendations

- Open recommendations total and by site
- Open recommendations within a single site
- Individual recommendation detail
 - Update the recommendation on the spot!

Activity

- Overall activity and activity instances by site
- · Last 90 days activity within a single site
- Activity details and materials used
- Site list and recommendation and activity indicators
- Email alerts creation



PestNetOnline Flexibility

PestNetOnline offers three levels of functionality

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

Level	Residential	Commercial	High Dependency
Functionality	Privately owned residences, condos, and townhouses	Commercial organizations that do not require third party audit support	Businesses and organizations who utilize any third party audit group
Barcode Structure	One barcode is required	1	✓
Materials Usage	Only through reporting	✓	✓
Pest Activity	√	✓	✓
Updating Recommendations	✓	1	✓
Visit Details	✓	1	✓
Single Site Reporting	✓	1	✓
Documents	✓	✓	✓
Reports	J	1	✓
Smartphone app (lite version)	✓.	√	✓
Alerts	X	1	✓
Multi-Site Reporting	Χ	1	✓
Detector History	X	1	✓
Trends Analysis	X	✓	✓
Tasks	X	1	J
Site Plans	X	X	✓
Audit Compliance	Χ	X	J

For more information visit pnol.rentokilna.com



Appendix O – CMP's TCP & PMP Inspection Records

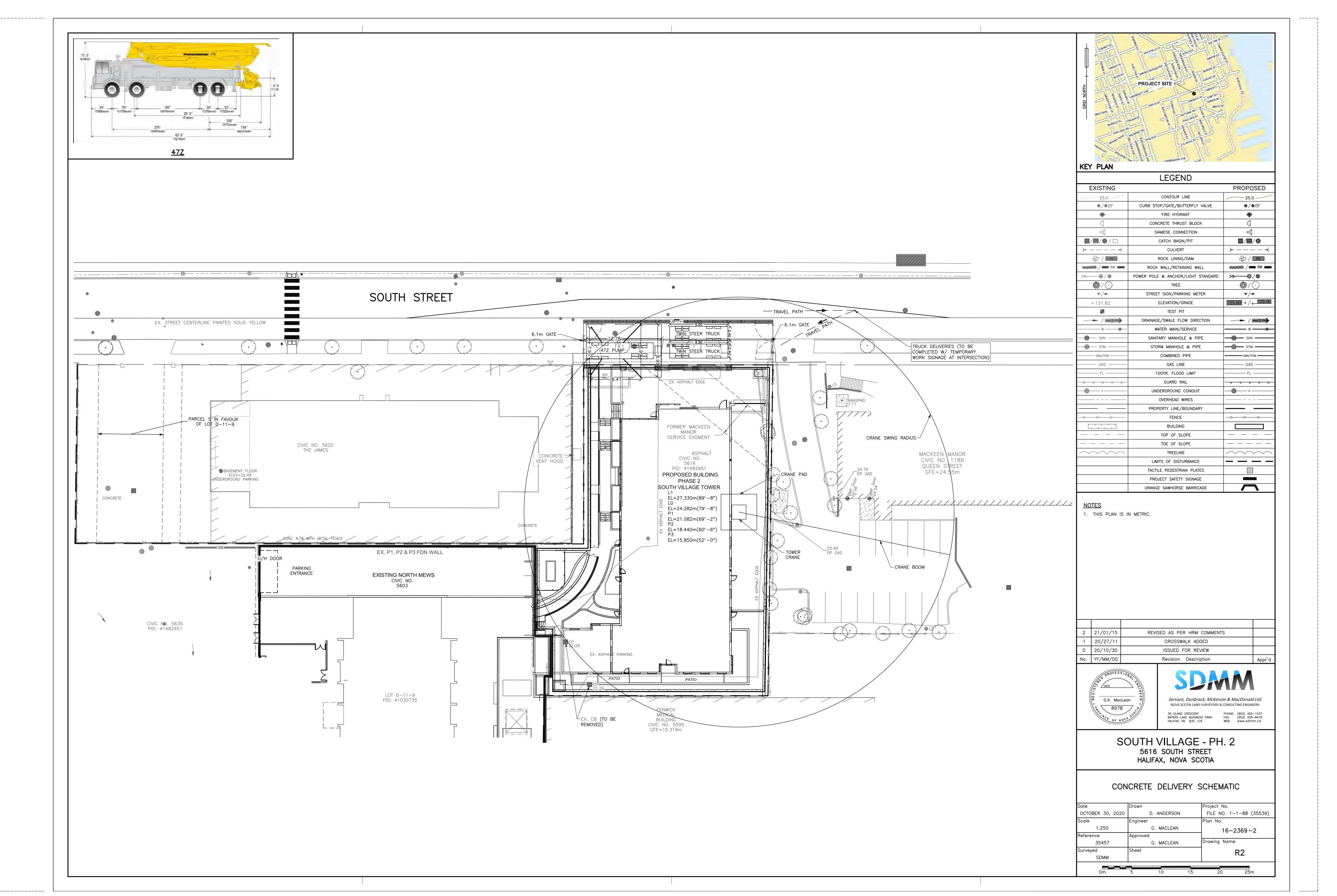
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Project:		Locati	on:			Phase:	Date:	Inspector:
		C	ONSTE	RUCTIO	N MAN	AGEMENT PLAN - INSPECT		
CMP Element	Set-u	ıp per	PMP?	Cond	ition?	Action Required	Action Completed	Comments
CIVIP LIEITIETT	Yes	No	N/A	Good	Bad	Action Required	Action Completed	Comments
	_							
	-							
							.	



Appendix P – Concrete Delivery Schematic

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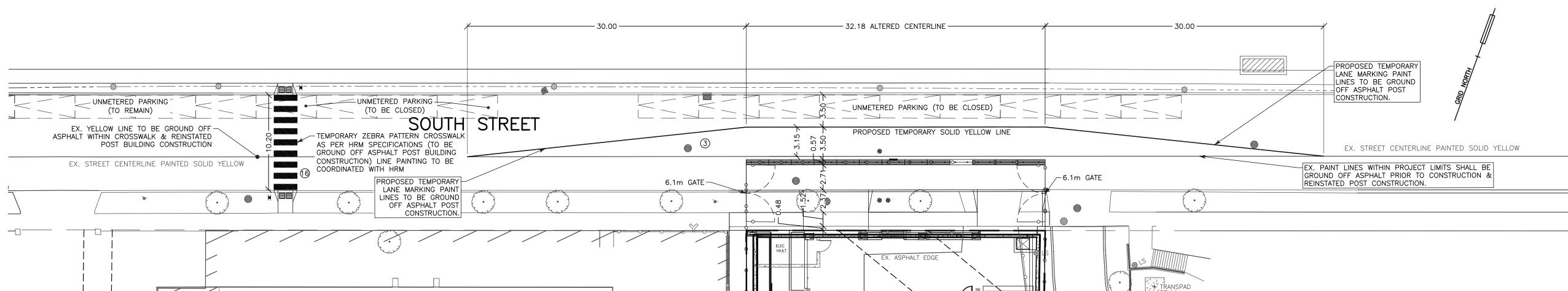




Appendix Q – Line Painting Plan

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	PAVEMENT MA	ARKINGS		
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	92.18
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
1)	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	10.20



1 .m



KEY	PLAN

	LEGEND	
EXISTING		PROPOSED
25.0	CONTOUR LINE	25.0
⊗/⊗BF	CURB STOP/GATE/BUTTERFLY VALVE	⊗ / ⊗ BF
•	FIRE HYDRANT	•
	CONCRETE THRUST BLOCK	1
≺	SIAMESE CONNECTION	≺
	CATCH BASIN/PIT	
) - (CULVERT) - (
& / RD	ROCK LINING/DAM	& / RD
€€€€€ / ■■ RW ■■	ROCK WALL/RETAINING WALL	€ RW ■ RW
> > • /•	POWER POLE & ANCHOR/LIGHT STANDARD	>> - ♦ / ©
* /①	TREE	@ /①
ਾ/⇔	STREET SIGN/PARKING METER	▼/⊖
× 131.82	ELEVATION/GRADE	125.00 × /+ 125.00
	TEST PIT	
~ / -s →	DRAINAGE/SWALE FLOW DIRECTION	<u> </u>
——— W ————	WATER MAIN/SERVICE	w
SAN	SANITARY MANHOLE & PIPE	SAN
STM	STORM MANHOLE & PIPE	STM
	COMBINED PIPE	SAN/STM
———— GAS ————	GAS LINE	———— GAS ————
——— FL ———	100YR. FLOOD LIMIT	
	GUARD RAIL	
c	UNDERGROUND CONDUIT	c
	OVERHEAD WIRES	
	PROPERTY LINE/BOUNDARY	
- \cdots - \cdots - \cdots	FENCE	-
	BUILDING	
	TOP OF SLOPE	
	TOE OF SLOPE	
	TREELINE	~~~~
	LIMITS OF DISTURBANCE	
	TACTILE PEDESTRIAN PLATES	
	PROJECT SAFETY SIGNAGE	
	ORANGE SAWHORSE BARRICADE	

_ NOT

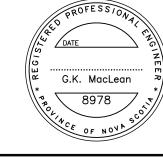
1. THIS PLAN IS IN METRIC.

APPROVED BY

TRAFFIC AUTHORITY DATE

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

2	21/01/15	REVISED AS PER HRM COMMENTS	
1	20/27/11	CROSSWALK ADDED	
0	20/10/30	ISSUED FOR REVIEW	
No.	YY/MM/DD	Revision Description	Appr'd





36 OLAND CRESCENT PHONE: (902) 455-1537
BAYERS LAKE BUSINESS PARK FAX: (902) 455-8479
HALIFAX, NS B3S 1C6 WEB: www.sdmm.ca

SOUTH VILLAGE - PH.2 5616 SOUTH STREET HALIFAX, NOVA SCOTIA

LINE PAINTING SCHEMATIC

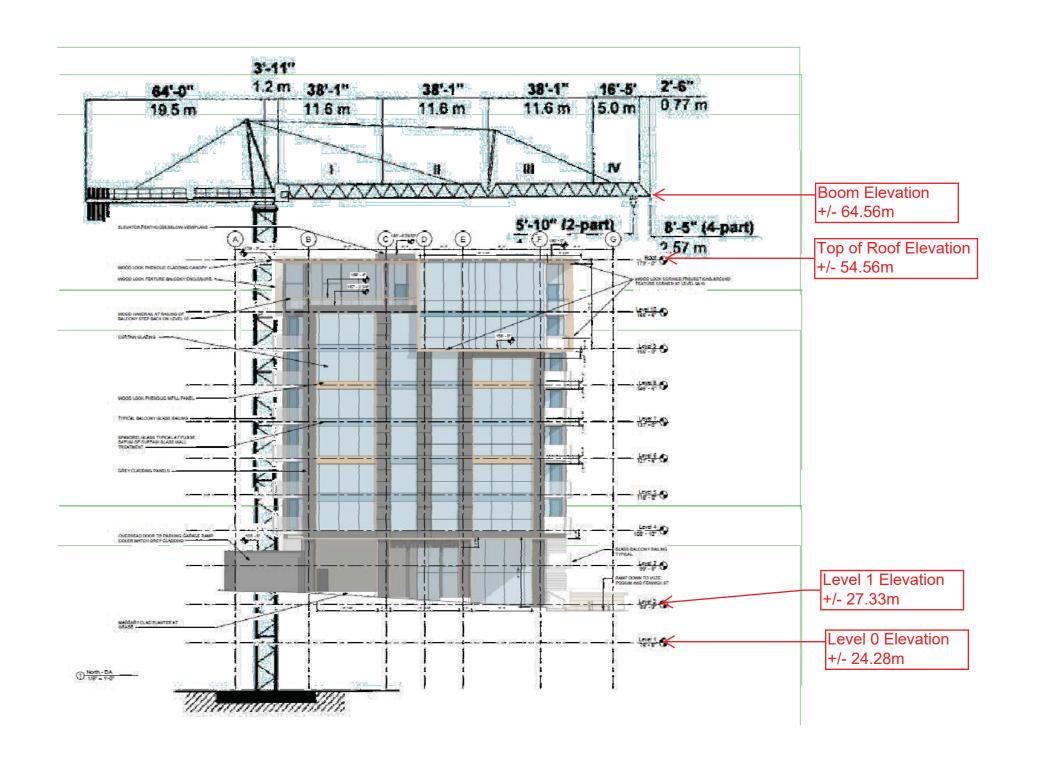
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OCTOBER 30, 2020	D. ANDERSON	FILE NO. 1-1-88 (3553
Scale	Engineer	Plan No.
1:250	G. MACLEAN	16-2370-2
Reference	Approved	
35457	G. MACLEAN	Drawing Name
Surveyed	Sheet	R3
SDMM		1.0



Appendix R – Crane Information

Page | R Job No. 35539



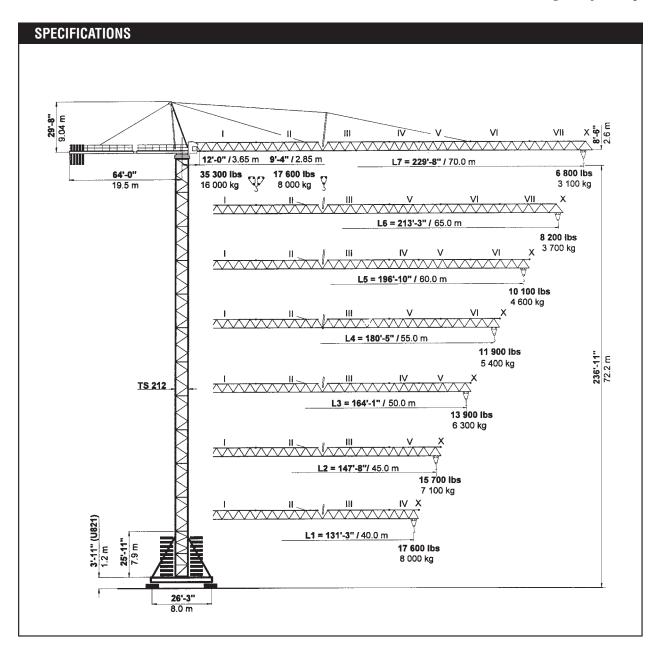


Tel: 1 (888) 337-BIGGE or (510) 638-8100 Web: www.biggetowercrane.com



PEINER SK 315

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



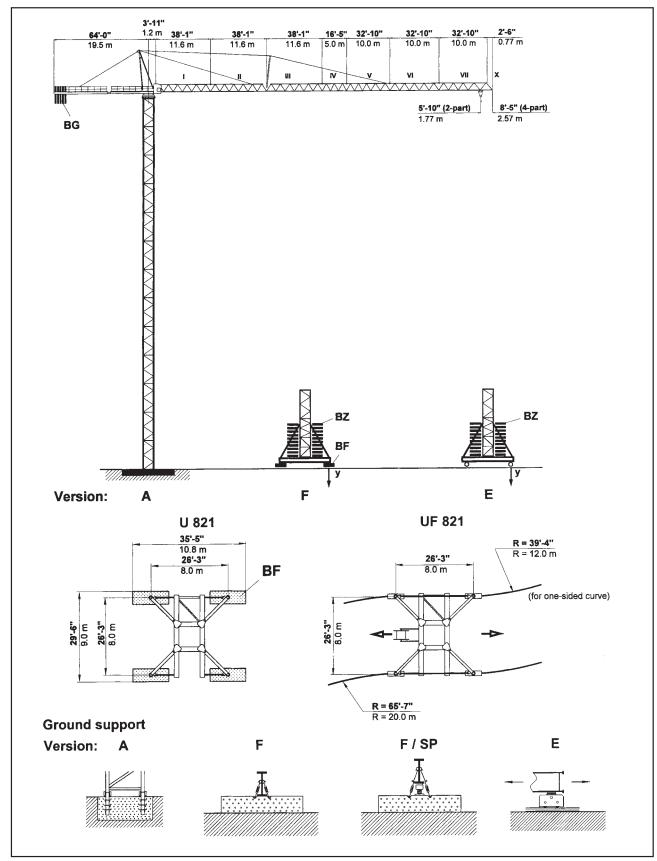
simple, available and cost effective™

Machines shown may have optional equipment.

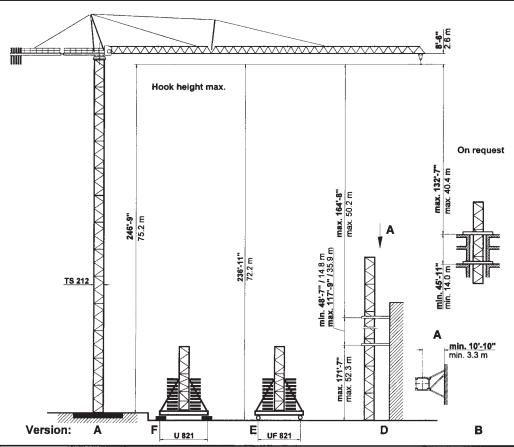


BİGGE

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



PEINER SK 315 Tower TS 211



TS 212	Version A				Versi	on F			Version E	
Tower	нн	Tower	НН	BZ + BF	in se	rvice	out of	BZ	in service	/ out of
TS 212.1	ft	TSV 212	ft	""	55		service		5011100	service
	m	TS 212.1	m	kips/t	kips	/ kN	kips / kN	kips / t	kips / kN	kips / kN
13 x TS 212.1	246'-9"* 75.2*									
12 x TS 212.1	227'-4"* 69.3*	1 x TSV 212 11 x TS 212.1	236'-11 "* 72.2*	212.0 96	20		279 1243	198.0 90	212 942	282 1253
11 x TS 212.1	208'-0"* 63.4*	1 x TSV 212 10 x TS 212.1	217'-6 "* 66.3*	168.0 76	18 82		240 1066	154.0 70	192 856	242 1075
10 x TS 212.1	188'-8"* 57.5*	1 x TSV 212 9 x TS 212.1	198'-2" 60.4	146.0 66	17 77		203 901	132.0 60	179 797	204 909
9 x TS 212.1	169'4" 51.6	1 x TSV 212 8 x TS 212.1	178'-10" 54.5	124.0 56	16 71	31	169 751	88.0 40	161 715	169 754
8 x TS 212.1	149'-11" 45.7	1 x TSV 212 7 x TS 212.1	159'-5" 48.6	101.0 46	14 66	19	145 645	88.0 40	1 54 683	170 654
7 x TS 212.1	130'-7" 39.8	1 x TSV 212 6 x TS 212.1	140'-1" 42.7	101.0 46	14 63	2	128 569	66.0 30	141 629	124 553
6 x TS 212.1	111'-3" 33.9	1 x TSV 212 5 x TS 212.1	120'-9" 36.8	101.0 46	13 60		112 499	66.0 30	135 600	108 482
5 x TS 212.1	91'-10" 28.0	1 x TSV 212 4 x TS 212.1	101'-5" 30.9	101.0 46	13 58	11	98 435	66.0 30	129 573	94 418
4 x TS 212.1	72'-6" 22.1	1 x TSV 212 3 x TS 212.1	82'-0" 25.0	101.0 46	12 55	16	85 376	66.0 30	123 548	81 359
3 x TS 212.1	53'-2" 16.2	1 x TSV 212 2 x TS 212.1	62'-8" 19.1	101.0 46	12 53	20	80 356	66.0 30	118 523	75 335
2 x TS 212.1	33'-9" 10.3	1 x TSV 212 1 x TS 212.1	43'-4" 13.2	101.0 46	11 51	6	80 356	66.0 30	112 500	75 335
Founda					Stationa	_			ravelling bas	
25'-7" x 25'-7					U 8	•			UF 821	
	7.8 x 7.8x 1.7 m Anchor stools			BF			BZ	Bogle		
4 x FF 212				4 x 8.82 k 4 x 4.0			k 11.02 kips lock 5.0 t		Curve F 500	

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

* Lower climbing section after erection.

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

TSV 212 = 2

TSV 212 = 25'-11" / 7.9 m

TSK 212 = 6'-7" / 2.0 m

PEINER SK 315 **Radius and Capacity**

	Jib	Max. capacity max.		ius – fi acity –		nt	2-Pa	rt Line	n 3 m	nax. 1	-	0 lbs							
	# E	17,600 lbs 8.0 t	75'-6" 23	82'-0" 25	98'-5" 30	114'-10" 35	131'-3" 40	141'-1" 43	147'-8" 45	157'-6" 48	164'-1 " 50	173'-11" 53	180'-5 " 55	190'-3" 58	196'-10 " 60	206'-8" 63	213'-3" 65	223"-1" 68	229'-8" 70
L7	229'-8"	9'-4" - 96'-9"	17600	17600	17400	14800	12800	11900	11200		10100	9500	9000	8600	8200	7700	7500	7100	6800
	70.0	2.85 - 29.5 m	8.0	8.0	7.9	6.7	5.8	5.4	5.1	4.8	4.6	4.3	4.1	3.9	3.7	3.5	3.4	3.2	3.1
L6		9'-4" - 105'-0"		17600		16100	13900	13000	12300	11500	11000	1	9900	9300	8800	8600	8200		
┕	65.0	2.85 - 32.0 m	8.0	8.0	8.0	7.3	6.3	5.9	5.6	5.2	5.0	4.7	4.5	4.2	4.0	3.9	3.7		
L5		9'-4" -117'-9"		17600	t .		15700		13900		12300		11200	10600	10100				
\vdash		2.85 - 35.9 m	8.0	8.0	8.0	8.0	7.1	6.6	6.3	5.9	5.6	5.3	5.1	4.8	4.6				
L4		9'-4" - 124'-8"		17600		17600	16800	15400	14800	13900	13200	1	11900						
_		2.85 - 38.0 m	8.0	8.0	8.0	8.0	7.6	7:0	6.7	6.3	6.0	5.6	5.4						
L3		9'-4" - 130'-11"		17600	17600	17600	17600	16300	15400	14600	13900								
_		2.85 - 39.9 m	8.0	8.0	8.0	8.0	8.0	7.4	7.0	6.6	6.3								
L2		9'-4" - 131'-11"				17600	17600	16500	15700										
⊢		2.85 - 40.2 m	8.0	8.0	8.0	8.0	8.0	7.5	7.1			ļ							
L1		9'-4" - 131'-3"				17600	17600												
<u></u>	40.0	2.85 - 40.0 m	8.0	8.0	8.0	8.0	8.0												
ı	ft	35,300 lbs				_	l-Part I	_ine 👣	167 m	nax. 3	5,300) lbs			R	adius -	2'-7"	(- 0.8	m)
ı	m	16.0 t								nax. 10								(,
L7			21800	10600	16100	13200	11200	10400	9700	9000	8600	7900	7500	7100	6600	6200	6000	5500	5300
ľ-′		3.65 - 14.8 m	9.9	8.9	7.3	6.0	5.1	4.7	4.4	4.1	3.9	3.6	3.4	3.2	3.0	2.8	2.7	2.5	2.4
L6		12'-0" - 52'-2"				14600	12600	11500	10800	9900	9500	8800	8400	7700	7500	6800	6600	44.0	
ľ		3.65 - 15.9 m	10.8	9.8	7.9	6.6	5.7	5.2	4.9	4.5	4.3	4.0	3.8	3.5	3.4	3.1	3.0		
L5	T 11-	12'-0" - 57'-9"	26900		19800	16800	14300	13000	12300	11500	10800	10100	9700	9000	8600	9.11			
		3.65 - 17.6 m	12.2	11.1	9.0	7.6	6.5	5.9	5.6	5.2	4.9	4.6	4.4	4.1	3.9				
L4		12'-0" - 61'-0"	28700		21200	17900	15200		13200		11700	10800	10400						
Γ.		3.65 - 18.6 m	13.0	11.8	9.6	8.1	6.9	6.4	6.0	5.6	5.3	4.9	4.7						
L3		12'-0" - 63'-8"	30200	27300	22300	18700	16100	14800	14100	12800	12300								
	49.2	3.65 - 19.4 m	13.7	12.4	10.1	8.5	7.3	6.7	6.4	5.8	5.6								ı
L2		12'-0" - 64'-0"	30400	27600	22500	19000	16300	15000	14100										
		3.65 - 19.5 m	13.8	12.5	10.2	8.6	7.4	6.8	6.4										l
L1	128'-7"	12'-0" - 66'-3"	31700	28700	23600	19800	17000												
	39.2	3.65 - 20.2 m	14.4	13.0	10.7	9.0	7.7												

Speeds

FU 8-160/4	↓	v =	0 ~290) fpm (88 m /	min.)			10.2 HP 7.5 kW						
SR 10-190/3	v = 0 → ~96 fpm (30 m / min.)													
K WB 120/4	♂	v =	0 → 0.9 r		2 x 12.0 kW 2 x 11.4 HP 2 x 8.4 kW									
	HK max. = 705' (215 m) 6 - layers								480 V / 60 Hz / 3 ph					
		2-Par Line	444 fpm 134 m/min	5 500 lbs 2 500 kg	4-Part Line	→ 222 fpm 67 m/min	11 000 lbs 5 000 kg	Total motor output	~14					
Type SR WB 66-	台」 ↑	台」					→	→ 276 fpm 84 m/min	9 300 lbs 4 200 kg		◆ 138 fpm 42 m/min	18 600 lbs 8 400 kg	without SR 10-190/3	HP ∼105
80/4F	**	~	◆ 180 fpm 54 m/min	13 900 lbs 6 300 kg		→ 90 fpm 27 m/min	27 800 lbs 12 600 kg		kW					
[108 HP] [79 kW]		•	→ 108 fpm 34 m/min	17 600 lbs 8 000 kg		→ 54 fpm 17 m/min	35 300 lbs 16 000 kg		170 kVA					

Counterweight

Jib		L 1	L 2	L 3	L4	L 5	L6	L 7
	BG	30 000 lbs 13 600 kg	32 200 lbs 14 600 kg	36 600 lbs 16 600 kg	39 150 lbs 17 750 kg	43 550 lbs 19 750 kg	41 350 lbs 18 750 kg	45 750 lbs 20 750 kg
Counterweight	[lbs]	3 x 6 950 1 x 9 150	2 x 6 950 2 x 9 150	4 x 9 150	3 x 6 950 2 x 9 150	1 x 6 950 4 x 9 150	2 x 6 950 3 x 9 150	5 x 9 150
	[t]	3 x 3.15 1 x 4.15	2 x 3.15 2 x 4.15	4 x 4.15	3 x 3.15 2 x 4.15	1 x 3.15 4 x 4.15	2 x 3.15 3 x 4.15	5 x 4.15

PEINER SK 315 Dimensions and transport weights

See operating manual for mounting weights

	Designation			Dime	nsions (f	t / m)	Weight	Volume
				1	b	h	lbs/t	ft ³ / m ³
1	Jib Section III			39.01 11.94	4.99 1.52	7.09 2.16	4 200 1.92	1 386 39.2
2	Jib Section I Section IV Section V Section VI Section VII Jib tip X			39.01 11.89 38.65 11.78 19.19 5.85 35.34 10.77 36.03 10.98 33.33 10.16 3.12 0.95	4.99 1.52 4.99 1.52 4.99 1.52 4.99 1.52 4.99 1.52 5.02	5.84 1.78 6.17 1.88 5.41 1.65 5.45 1.66 5.48 1.67 5.32 1.62 1.64 0.50	3 790 1.72 4 320 1.96 1 760 0.80 3 090 1.40 2 470 1.12 1 570 0.71 310 0.14	1 137 32.2 1 190 33.7 519 14.7 961 27.2 985 27.9 853 25.0 25 0.7
3	Turntable with slewing ring support			36.35 11.08 31.99	7.64 2.33 7.64	7.81 2.38 7.81	25 350 11.50 24 030	2 169 61.4
	Cabin with support and railing			9.75 10.17 3.10	2.33 4.92 1.50	7.25 2.21	10.90 1 320 0.60	364 10.3
4	Counter jib with hoist winch			38.13 11.62	5.91 1.80	6.00 1.83	14 550 6.60	1 353 38.3
	Hoist winch	66 WB		7.51 2.29	5.45 1.66	3.28 1.00	5 400 2.45	1 34 8.4
5	Counterweight	ВG		3.94 1.20 3.94 1.20	1.64 0.50 1.64 0.50	9.32 2.84 12.11 3.69	6 950 3.15 9 150 4.15	60 1.4 78 1.7
		TS 212.1		19.52 5.95	7.78 2.37	8.01 2.45	9 130 4.14	1 216 34.4
6	Tower section	TSV 212 with struts	-	31.17 9.50	9.84 3.00	10.00 3.05	20 330 9.22	3 067 86.9
		TSK 212		6.63 2.02	7.87 2.40	9.84 3.00	6 170 2.80	513 14.5
7	Travelling base, folded	UF 821		41.01 12.5	9.74 2.97	7.05 2.15	35 050 15.90	2 816 79.8
8	Stationary base, folded	U 821		34.55 10.53	9.06 2.76	2.79 0.85	17 130 7.77	873 24.7
9	Central ballast block BZ			11.48 3.50	4.92 1.50	2.20 0.67	11 020 5.00	124 3.5
10	Foundation pad	BF	l b	9.19 2.80	3.28 1.00	1.87 0.57	8 820 4.00	57 1.6
11	Accessories						4 800 2.17	

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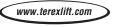
For more information, product demonstration, or details on lease and rental plans, please contact your local Terex Towers Distributor.

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