

Joseph Howe PHASE 1 & 2 Halifax, NS

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Section 1: Introduction

1.1 Project Description and Objectives

Blue Basin Investments is planning to develop two multi-unit buildings on a common podium consisting of mixed multi-unit residential with commercial on main floors on Joseph Howe Drive and Percy St in Halifax. The buildings are 8 floors in height plus rooftop amenities and 2 + 1 levels of underground parking. This CMP has been prepared to address excavation, services and construction of both buildings.

The construction site is bounded by Joseph Howe Drive on the East and Percy Street on the West. Northern boundary is owned by HRM and serves as a future trail connection between Percy Street and Joseph Howe Drive. The southern boundary is abutted by HRM and private property. Neighboring properties will be generally undisturbed throughout construction phases and neighbours will be notified and updated on construction ahead of time.

Site works laydown and logistics shall generally be contained on site. Where service connections and other encroachments are required during construction, necessary closures shall be coordinated in accordance with Municipal guidelines.

This CMP document is an evolving document to guide the project team in mitigating impacts to the immediate neighbors and the adjacent community. This Construction Management Plan (CMP) has been prepared based on HRM's CMP (2020) guidelines and administrative order (2018-005-ADM).

1.2 Project Contact Information

The project team for the proposed development consists of:

Role	Name	Contact	Address	Phone
Developer	Blue Basin Investments	Georges Romanos	Suite B – 1070 Barrington St, Halifax, NS B3S 0C8	(902) 441 8940 (24hr Emergency Contact)
Site Contractor	DJ Excavation	Dennis J Day	7295 Hwy 7 Musquodoboit, NS B0J 2L0	(902) 471-6987
Traffic Control Company	TBD	TBD	TBD	TBD
Rodent Control Company	Ace Terminex Pest Control		2257 Lawrencetown Rd, Lawrencetown NS B2Z 1L7	(902) 465-8118

Section 2: Project Schedule and Logistics

Following is a summary of anticipated major project milestones.

2.1 Schedule

	Start Date		End Date
Mobilization	Jun 2021		Jul 2022
Rodent Control Program	Jul 2021		Apr 2022
Demolition	Jul 2021		Aug 2021
Excavation & Substructure	Jul 2021		Apr 2022
Services	Jul 2022		Sep 2022
Superstructure	Aug 2021		Oct 2022
Facades	Mar 2022		Apr 2023
Completion			Oct 2023

2.2 Key Dates

	Date
Mobilization & Fencing	Jun 2021
Complete Services	Sep 2022
Lane Closures:	
Percy Street North Bound & Joseph Howe Drive South Bound	Jul to Aug 2022 (intermittent - services)
	Jul 2023 (driveways)
Sidewalk/Trail Closures:	
Percy Street East Sidewalk & HRM Northern Trail	Jul to Aug 2022 (intermittent - services)
Joseph Howe Trail	Jul 2023 (driveway)

2.3 Hours of Work

Work will generally commence during normal working hours per HRM's Noise By-Law and Traffic Control Manual Supplement (noted below).

Mon to Fri	7:00 am to 9:30 pm
Sat	8:00 am to 7:00 pm
Sun & Statutory Holidays	9:00 am to 7:00 pm

Section 3: Relevant Regulations & Guidelines

3.1 Occupational Health & Safety Regulations

The CMP shall be implemented in accordance with all applicable Provincial and Federal Occupational Health & Safety Regulations. Construction activities shall meet the standards of:

- a) National Building Code of Canada and the Nova Scotia Building Code Regulations;
- b) Nova Scotia Occupational Health and Safety Act

- c) The Transportation Association of Canada (TAC)'s Manual of Uniform Traffic Control Devices Canada (MUTCDC);
- 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) S-300 Streets
- b) E-200 Encroachments
- c) B-201 Building
- d) N-200 Noise
- e) T-600 Trees
- f) S-900 Controlled Access Streets
- g) T-400 Truck Routes
- h) W-101 Discharge into Public Sewers
- i) B-600 Blasting; and
- j) HRM TCM Supplement
- k) HRM Design Guidelines
- l) HRM Standard Details
- m) G-200 Grade Alteration and Stormwater Management
- n) Admin Order 2018-005-ADM regarding encroachments
- o) Admin Order 2020-010-OP regarding stormwater management standards for development activities

Section 4: Vehicle Management

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).

Temporary lane closures will be required for service installations on Percy Street and driveway connections on Percy Street and Joseph Howe Drive. See Appendix A.

4.1 Vehicular Traffic Control

Throughout all phases of construction two-way vehicular traffic will be maintained. While services are installed temporary lane closures may be required.

4.2 Haul Route and Staging Areas

Required truck Haul Routes are included in the Appendix C, and where required, have been prepared by the traffic control company. Selected routes are intended to minimize traffic congestion and maximize pedestrian safety. During construction vehicles will enter and exit the site at the noted gate which will be clearly marked for function.

4.3 Vehicular Traffic Notifications

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

4.4 Emergency Vehicles

The site will remain accessible to emergency vehicles at all times.

4.5 Parking

On street public parking is currently permitted along Percy Street adjacent to the project site. On site parking for trucks, larger vehicles and equipment will be managed in the on-site staging areas.

To minimize parking requirements in adjacent neighbourhoods, on-site workers will be encouraged to carpool or rely on public transit.

4.6 Bus Stops

Bus stops along Joseph Howe will not be impacted by the construction. There are no bus stops along Percy Street.

4.7 Hazard Assessment

Vehicular and pedestrian hazard assessments are provided in the Appendix M. Hazard assessment may be updated during construction as Additional site hazards are identified. On-site personnel will review this list and encouraged to identify additional potential hazards and mitigation methods.

Section 5: Pedestrian Management

Pedestrian trail access along Joseph Howe Drive will not be impacted during excavation as there is a 10-15 ft buffer between the trail and construction site. Service installation and driveway connections to Joseph Howe Drive may require temporary redirection of pedestrians to the sidewalk on the east side of Joseph Howe Drive. Percy Street sidewalk traffic, when impacted during excavation, service installation and driveway connections, can be redirected to the sidewalk on the west side of the street. The northern trail area has adequate buffers so that pedestrian movement should not be impacted. See Appendix A.

5.1 Pedestrian Protection

Pedestrians will be protected from construction activities via fenced barricade. The fence shall be constructed from plywood and chain link and including opaque coverings where required. This fence will also serve to minimize debris and dust from leaving the site, and to keep unauthorized personnel from entering the site. The fence will secure the entire perimeter of the work area. For security the gate and other strategic areas will be viewable via chain link mesh. The fencing may be covered with a combination of project and advertising banners. For details refer to Appendix D.

5.2 Pedestrian Safety

Pedestrian safety will be maintained by implementing appropriate signage. All navigation and safety signage indicating alternative sidewalks and potential hazards will be inspected and maintained regularly. See Appendix I & Appendix J.

5.3 Pedestrian Traffic Notifications

Notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of pedestrian traffic impacts. A sample traffic notification letter can be found in the Appendix N.

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 features shall be incorporated in the pedestrian management signage. This includes high visibility contrasting colours with appropriate font types (upper / lower case), varying font sizes (16mm to 51mm) and colours (orange background w black lettering or white background w black lettering).

Bright orange sawhorse barricades with bold-font signage to identify sidewalk termination points will be used. Sawhorse barriers will incorporate painted lower cross members. These features will be placed near ground to aid visually impaired persons. Reflective tape will be placed on the ends of fencing, hoarding and sawhorse barricades, to highlight pedestrian routes and disruptions. Signage and tape colours will comply with the colour/brightness contrast as outlined by the CNIB website including 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

Vehicular and pedestrian hazard assessments are provided in the Appendix M. Hazard assessment may be updated during construction as Additional site hazards are identified. On-site personnel will review this list and participate in identifying other potential hazards to mitigation risk.

5.7 Pedestrian Management Plans Rendering (PMPR) Signage

See Appendix D.

5.8 Pedestrian Detour Wayfinding Signage

See Appendix D.

Section 6: Encroachments & Disruptions

Temporary encroachments during excavation and service lateral installation are expected for short periods. Lateral installation along Joseph Howe includes storm and sewer connections. For Percy Street pedestrian traffic will be directed to other side of the street. For Joseph Howe Drive, there should be adequate room to re-direct pedestrian traffic during this work, otherwise pedestrians will be directed to the other side of the street. Service connections affecting the Northern trail will require a brief closure of the trail. See Appendix A.

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

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

6.1 Demolition

Demolition has been completed via separate undertaking.

6.2 Site Excavation

Mass removal of common site materials. Bedrock removal to be completed with a rock breaker to reach suitable footing elevation. See Appendix A

6.3 Crane Erection & Removal

Crane erection and removal are contained on site (not requiring encroachment) and will be completed in accordance with crane base design as approved by the crane operators engineering team and the Dept. of

Labour. At this time we have not selected a formwork contractor and if additional details are required by the Municipality, we can make the same available as a future amendment to the CMP. For crane operation and safety procedures, please refer to section 9.1.

6.4 Site Services Connection

This includes installation of new water, sanitary and storm laterals to their respective mains as well as decommissioning existing laterals which will be abandoned and capped. The service installs will require temporary encroachment including temporary workplace. The target dates for this work are provided in the construction schedule and shall be completed in compliance with Noise By-Laws. All efforts will be made to complete this work and reinstate ROW as quickly as possible and to minimize disruptions.

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

Street reinstatement shall be completed per Municipal specifications and during the permissible work season. Asphalt, concrete curb and sidewalk reinstatement 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.

6.5 Construction Management Plan Element Inspection and Maintenance

Construction management plan elements will be reviewed on a regular basis. Any deficiencies and updates shall be addressed. A CMP 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 available to site personnel and HRM officials.

6.6 Changes to the Construction Management Plan

All departures from the CMP regardless of the significance must be submitted to the Municipality 5 business 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.

6.7 Encroachment and Disruption Schedule

Appendix A includes a summary of encroachments, types of activity associated with each encroachment, probable closure dates and durations and proposed alternative routes for pedestrians and vehicles.

Section 7: Environmental Factors

7.1 Damage to HRM Infrastructure

While efforts will be made to avoid damage during construction, it is expected that areas of existing curbs and sidewalks may be damaged during construction and may require repair or replacement.

7.2 Protection of Trees

While not anticipated that trees in the HRM right of way will be damaged, there are HRM trees in the public right-of-way on Joseph Howe Drive adjacent to the project. HRM trees shall not be removed without prior approval and/or compensation agreements between the developer and HRM Urban Forestry. Trees shall be protected during construction in accordance with HRM Tree Bylaw (T-600). Refer to HRM tree protection detail Appendix E.

7.3 Line Painting and Temporary Crosswalks

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

7.4 Street and Right-of-Way Cleaning

The portion of public street adjacent to the project will be cleaned of any debris from trucks and silt, dirt, or rock that migrates beyond the encroachments. Rock pads will be installed at the site entrance behind the curb line to remove dirt from truck tires and minimize off-site soils.

7.5 Protection from Inclement Weather

Site fencing will serve to protect the public from construction debris during inclement weather. Regular maintenance to ensure that loose items and trash are contained.

7.6 Storm Water Management

Nearby catch basins may be fitted with filter fabric to prevent debris from entering the storm system. Stormwater will be directed to temporary on-site stormwater settling ponds located to allow clean water to be discharged into the public stormwater system in accordance with HRM By-law W-101 and HRWC guidelines. Sediment ponds may be re-positioned as required during excavation but will generally be placed in localized on-site low points. Appendix L.

7.7 Noise, Dust and Emission Control

Dust mitigation for this project will be achieved using rock pads for trucks exiting the site. A water truck and sweeper truck may also be utilized to help prevent dust from becoming airborne and as required calcium may be used to control dust migration. Mesh installed on porous areas of fencing shall be used as required to mitigate dust control during rock breaking.

Construction vehicles will use 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.

All work shall be completed in accordance with HRM Noise By-Law.

7.8 Rodent Control

Rodent movement increases during construction activities. A rodent control company will be engaged to utilize the established Rodent Control Plan (RCP) to help mitigate rodent movement prior and during construction. The RCP is intended to prevent movement of rodents off-site. The RCP consists of a baiting and monitoring program. Bait stations (traps) will be placed per NPMA Pest Management Standards for Food Processing & Handling Facilities.

The RCP will be implemented two weeks before excavation to help lower the number of active rodents in the project area. Bait stations will be placed along existing boundary and fence lines, located and secured as required to ensure adequate coverage.

Refer to the Appendix O for a copy of the Rodent Control Plan.

Section 8: Site Protection & Hoarding

8.1 Barriers, Fences, and Gates

The site shall be protected using 1.8m (6 ft) construction fencing. This fencing will be constructed with plywood and chain-link, and include a high quality opaque dust control mesh. Construction traffic will utilize the proposed access gate, which will not be screened for safety reasons. This fence will also serve to minimize debris from leaving the site, and to keep unauthorized personnel from entering the site. For security the gate and other strategic areas will be viewable view chain link mesh. The fencing may be covered with a combination of project and advertising banners. For details please refer to Appendix F & Appendix G.

Installation of this fencing and covering will take place during regular working hours. Any traffic interruptions during fence erection will be coordinated by the contractor who will notify HRM a minimum of five (5) business days before work is scheduled to begin.

8.2 Snow removal

Snow and ice will be removed as required to ensure that emergency access to the project site. The contractor will truck snow off site as required to prevent the unsafe build-up of snow piles.

8.3 Gates Access & Egress

The site will be accessible through a gate. This gate is the only location that will receive equipment/materials during construction and will be locked at all times after work hours. In cases of emergencies, on-site workers will exit the project site through this gate. This gate will remain unlocked at all times during work hours to allow emergency response units access to the site.

8.4 Hoarding Aesthetics

Fence Graphics and Marketing Images may be added to site hoarding during construction.

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

Contact information will be provided on Project Information Boards which will be posted prominently around the project site on the fencing. Refer to Appendix H for a copy of the Project Information.

Section 9: Lifting, Hoisting, and Crane Operations

9.1 Crane Use Overview

Lifting & Hoisting is within the construction site perimeter other than some interference over the public space (see Appendix K). All lifting and hoisting shall be carried out with stationary cranes, mobile cranes & lifts.

Lifting operations, such as tower cranes, mobile cranes, tele-handlers, forklifts, and small lifts are required for the construction of this project. While lifting heavy loads over public space is generally avoided, there are times when

such lift is necessary. The CMP includes the following provisions for proposed crane operations or lifting of heavy loads over the public realm:

- a) Notwithstanding level-luffing cranes, tower cranes will be sited so that there is at least 3m clearance between the end of the boom and the nearest obstacle or building and as much as possible; tower cranes will be sited to avoid loads being handled over occupied areas;
- b) Measures shall be implemented to ensure that people are not placed at risk from the operation of the crane;
- c) No loads should be moved or suspended over people;
- d) At no time will a load be left suspended over the public realm;
- e) Ongoing Procedures shall be followed for thorough checks of area specific hazards;
- f) For loads that must be transferred over a public space, the area will be closed to access (in accordance with short duration traffic control protocols as specified by NSTCM) during the move; and
- f) When loads must be handled near people, extreme care will be exercised and adequate clearances provided.

Lifting and lowering of materials require boom trucks. Trucks will be positioned off street and on property within the hoarded area. If lifting operations are required over the public realm, this area will be closed to access. In all cases of lifting, extreme care will be used to ensure public and worker safety. All trucks will be operated under the direct supervision of a licensed operator.

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 Transport Canada notice is not required.

Section 10: On-Site Safety and Security

10.1 Site Safety and Security Overview

An independent Safety Officer will be engaged throughout this project. The Safety Officer will have full authority to set safety protocols for the site and to ensure all contractors are registered members in good standing with the Nova Scotia Construction Safety Association and are committed to upholding the safety of their workers and the public. All personnel 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 warning re 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 (Appendix C) 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 impact on traffic. The staging and delivery area will be coordinated by the delivery companies and site personnel. Trucks will be housed within the encroachment and private property within the hoarding limits.

10.3 Emergency Access & Egress

The site will be accessible through gates to facilitate construction vehicle access. In cases of emergencies, workers will exit the site through these gates. Gates will remain unlocked at all times that workers are on site to allow unrestricted emergency unit response. Gates will be locked and secured afterhours to provide security against public access during off work hours. Emergency contact information will be posted on project information boards surrounding the site.

10.4 Security Site Lighting

Security lighting is not anticipated for this project.

10.5 Smoking Areas

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

10.6 Fire Suppression Systems

The proposed fire department connections are not available for fire department use until building completion. Fire hydrants located adjacent site will not be disturbed by construction. Fire hydrants will be accessible to firefighters throughout all phases of the project.

Section 11: Pre-Construction Consultation & Meeting

11.1 Preconstruction Meeting

The developer, contractor and traffic control company will attend a pre-construction meeting with HRM staff to review the CMP document. HRM’s engineering technician will confirm the date and time of this meeting.

11.2 Project Information and Contacts

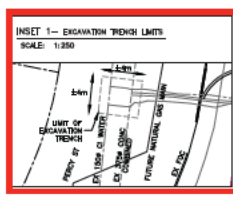
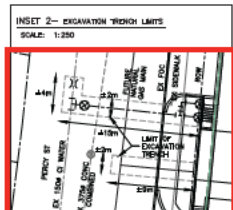
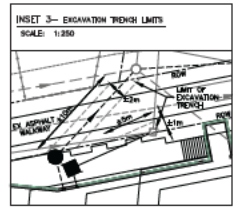
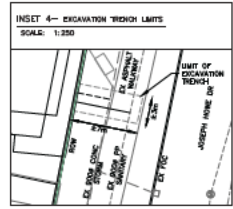
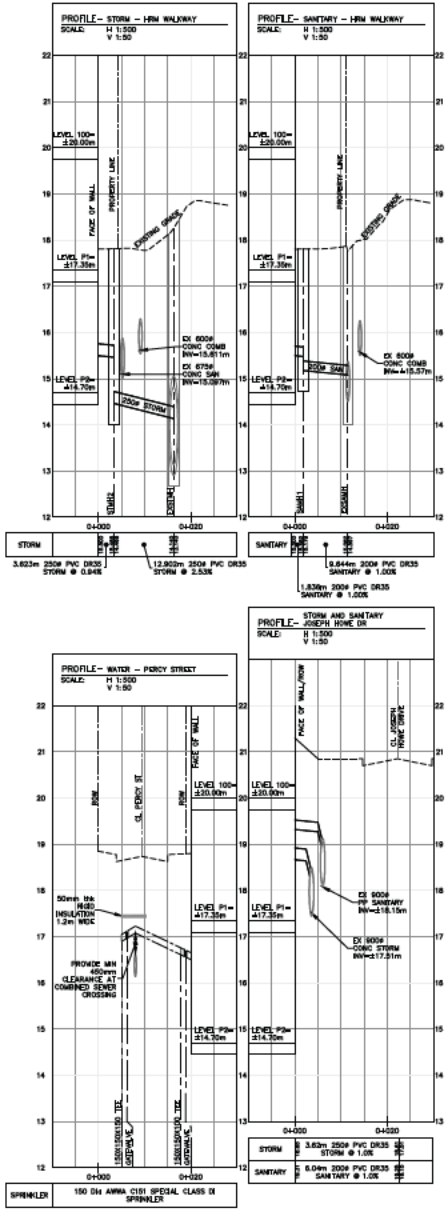
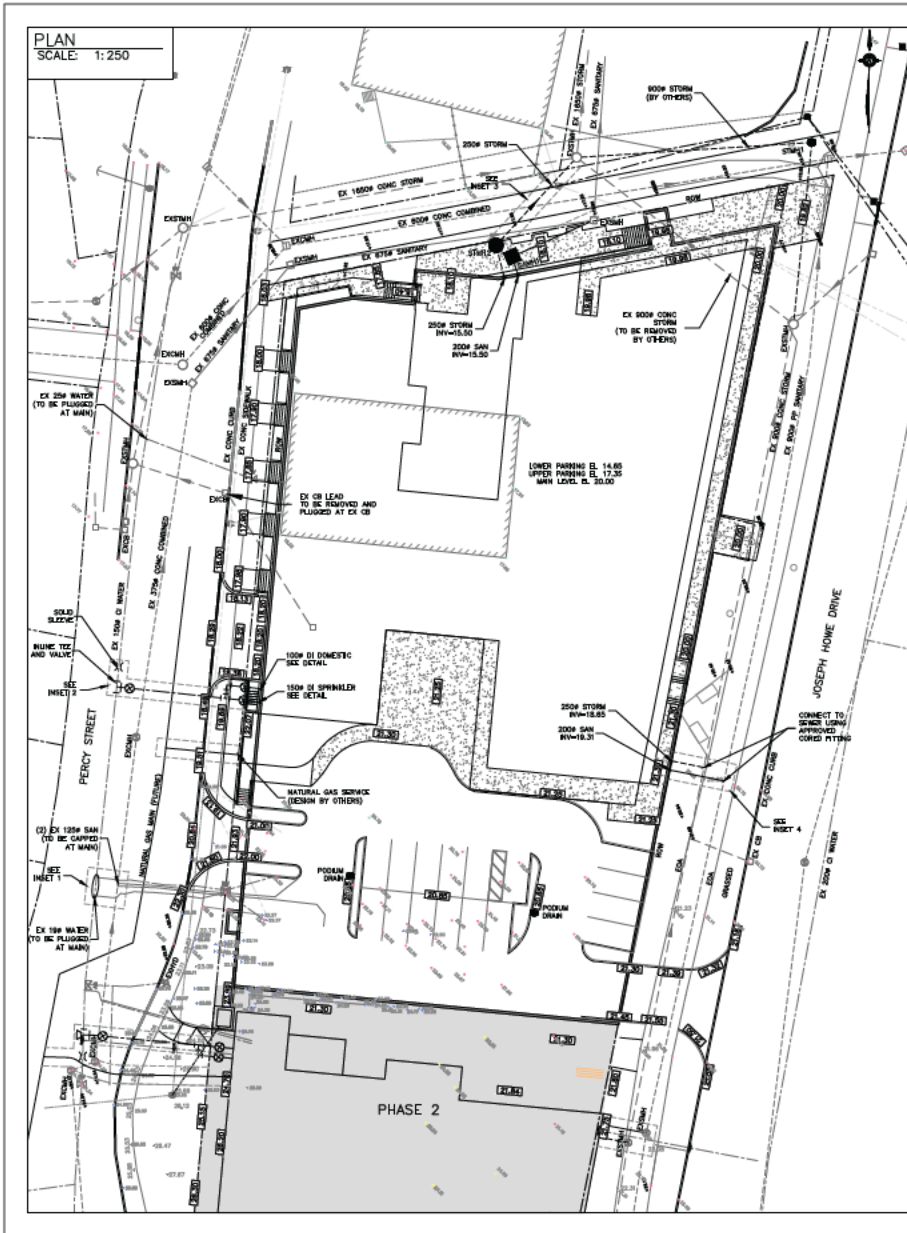
Contact information will be provided on Project Information Boards to be posted prominently around the project site on the fencing. Information on signage is outlined in the Appendix H.

11.3 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 of minimizing negative impacts to the community, pedestrians, and traffic throughout the scope of this project. This plan is intended to be used as a minimum standard. Questions or comments related to this document, please contact Blue Basin Investments.



Key Plan
Scale: NTS

EXISTING	PLAN LEGEND	PROPOSED
	DRAINAGE SWALE DITCH	
	PROPERTY BOUNDARY FENCE	
	WATER VALVE	
	STORM MANHOLE	
	SANITARY MANHOLE	
	CATCHBASIN	
	ALLEYWAY	
	TRAFFIC SIGN	
	UTILITY POLE	
	SPOT ELEVATIONS	
	SURFACE DRAINAGE FLOW DIRECTION	
	UNIT STAND	
	EDGE OF ASPHALT	
	CURB	
	FACE OF CURB	
	TOP OF WALL	

NOTES

- KVM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORM SEWER LATERALS EXTERNAL TO THE STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LIGHTING, STOPS AND TRAP DETAILS.
- SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR PROGRAM LANDSCAPING AND DRAINAGE DESIGN.
- PROVIDE NEW DRAINAGE CHAMPS AT ENTRANCES OF PERCY ST AND JOSEPH HOWE DR FOR DETAILS FROM 04 AND HWY 102.

No.	Date	Revised	Description	App'd
7	12 MAY 21		SAN/STORM LATERALS TO JOSEPH HOWE DR	ATA
6	07 JAN 21		NATURAL GAS RELOCATED	ATA
5	27 NOV 20		HAUTAX WATER COMMENTS ADDRESSED	ATA
4	09 NOV 20		DRAWING/GENERAL REVISIONS	ATA
3	24 AUG 20		EXISTING SERVICES/POTENTIAL	ATA
2	21 JUL 20		FOR BUILDING PERMIT	ATA
1	09 NOV 18		ISSUED FOR REVIEW	ATA

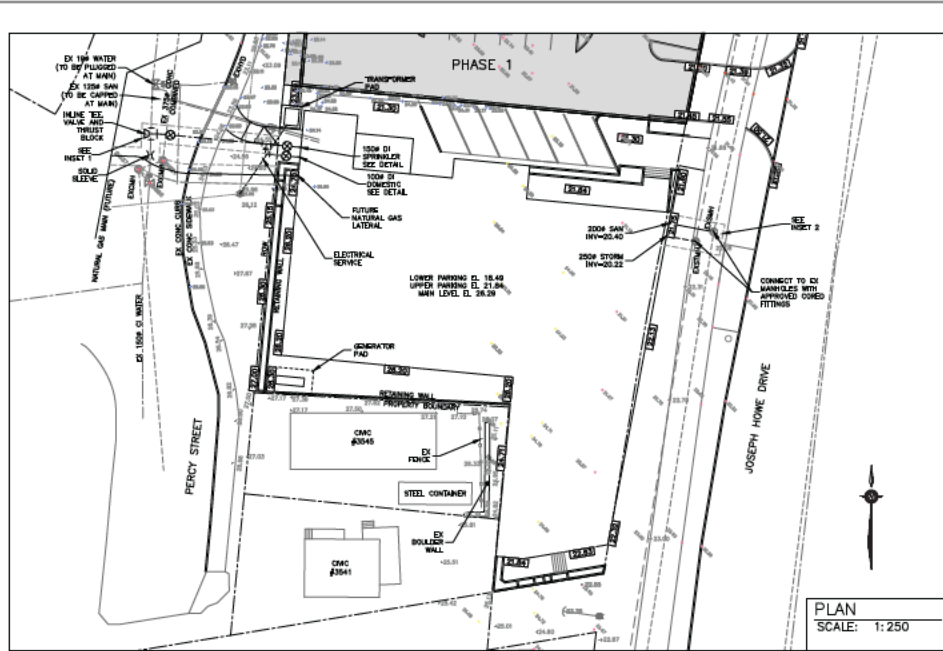
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JOSEPH HOWE DRIVE
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HALFAX, NOVA SCOTIA

SITE SERVICING

Date: October 30, 2020	Drawn: STAFF	Project No: 632
Scale: AS SHOWN	Engineer: ATK	FILE NAME: 632-601.dwg
Reference:	Approved:	
Surveyed: AEL	Sheet: 501	



GENERAL NOTES/SPECIFICATIONS

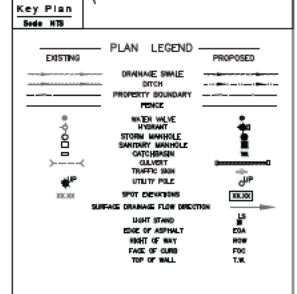
1. ALL ELEVATIONS GIVEN AND NOTED ARE IN METRES.
2. ALL DIMENSIONS GIVEN ARE IN METRES UNLESS OTHERWISE NOTED. PIPE DIAMETERS ARE GIVEN IN MILLIMETRES.
3. EXISTING UNDERGROUND PIPING IS APPROXIMATE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
4. EXISTING INFORMATION FOR THIS DESIGN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY OTHERS. CONTRACTOR SHALL CONFIRM EXISTING SERVICE INFORMATION BEFORE CONSTRUCTION PROCEEDS.
5. ENVIRONMENTAL PROTECTION MEASURES TO BE IN ACCORDANCE WITH REQUIREMENTS OF THE MANUAL FOR CONSTRUCTION SITES AND THE TORONTO REGIONAL PERMIT INCLUDING CODES FOR ENVIRONMENTAL AND STORM WATER CONTROL, RELEVANT IN THE CONTRACT PROC.
6. OBTAIN NECESSARY PERMITS FROM THE HALIFAX REGIONAL MUNICIPALITY AND HALIFAX WATER PRIOR TO INITIATING WORK.
7. UNLESS OTHERWISE NOTED HORIZONTAL AND VERTICAL CONSTRUCTION SLOPES. ALL SLOPES STEEPER THAN 3:1 V TO BE STABILIZED WITH RRP R40 300mm THK.
8. UNLESS OTHERWISE NOTED HORIZONTAL EXISTING FEATURES EQUAL OR BETTER THAN CONDITIONS WHEN EXISTED PRIOR TO CONSTRUCTION. IN VEGETATED AREAS REINSTATE WITH 100mm OF TOPSOIL AND SEED.
9. PLACE SURPLUS FILL MATERIALS OFF SITE.
10. PROVIDE TEMPORARY SUPPORT FOR UTILITY POLES TO SATISFACTION OF NEMH AND BELL ALBERT.
11. CONDUCT WORK IN ACCORDANCE WITH OCCUPATIONAL HEALTH AND SAFETY REGULATIONS AND GUIDELINES.
12. HORIZONTAL, GEOMETRIC, CHANGEMENTS AND PROPERTY INFORMATION PROVIDED BY OTHERS.
13. CONTOUR ELEVATIONS AND SPOT ELEVATIONS ARE INTERPOLATED AND ARE APPROXIMATE ONLY. TOPS AND TOES OF SLOPES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE CONSTRUCTED TO SUIT THE ACTUAL GROUND ELEVATIONS AND SPECIFIED SIDE SLOPES.
14. PROVIDE CURB OPENINGS FOR DRIVEWAYS AS FOLLOWS:
SINGLE - N/A
DOUBLE - N/A
15. FOR TRENCH WIDTHS AND PIPE BEDDING REQUIREMENTS SEE DETAIL HWS 1440.
16. SOODING - 100mm OF TOPSOIL AND MURDERY SOO. - SEE LANDSCAPE DRAWING
17. ASPHALT - SEE LANDSCAPE DRAWING.
18. CONCRETE FOR CURBS AND SIDEWALKS - SEE LANDSCAPE DRAWING.
19. COMPLETE SITE GRADING SUCH THAT NO DRAINAGE IS DIRECTED ONTO PRIVATE PROPERTY OR STREET SURFACES. DRIVEWAY RAMP SHALL SLOPE TOWARDS STREET FROM RIGHT OF WAY.
20. IF REQUIRED, SITE GRADING, FILLING AND FOUNDATIONS SHALL AS BE DIRECTED BY A QUALIFIED PROFESSIONAL.
21. EXISTING ASPHALT CURBING TO BE REPAIRED AND REPLACED AS DIRECTED BY NEMH. REPLACE EXISTING CURB AND REINFORC AT SERVICE LATERALS TO HWM STANDARD DETAILS.
22. STREET REINSTATEMENT TO BE PER SECTION 6.0 OF THE HWM MUNICIPAL DESIGN GUIDELINES.

GENERAL - SEWER SPECIFICATIONS:

1. ALL MATERIALS AND INSTALLATION TO BE IN ACCORDANCE WITH THE HALIFAX REGIONAL MUNICIPALITY SPECIFIC DESIGN GUIDELINES, HALIFAX WATER DESIGN AND CONSTRUCTION SPECIFICATIONS, INTERNATIONAL STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES (LATEST EDITIONS), AND THE CONTRACT DOCUMENTS.
2. SERVICE LATERALS TO BE IN ACCORDANCE WITH STANDARDS AND DETAIL HWS 1010 & 1050.
3. SEWER LATERALS CONSTRUCTED IN ROCK SHALL HAVE THE ROCK BROKEN 3m PAST THE CAPPED END FOR THE FULL TRENCH WIDTH.
4. GATCH BASIN LEADS ARE TO BE MINIMUM 300mm PVC DR35 PIPE AT A MINIMUM SLOPE OF 1% CONNECTED TO A MANHOLE OR MAN WITH APPROVED TEE, FITTINGS TO CSA B185.1.
5. GATCH BASINS TO BE INSTALLED AS PER STANDARD DETAIL HWS 1020.
6. FOR TRENCH WIDTHS AND PIPE BEDDING REQUIREMENTS SEE DETAIL HWS 1440.
7. STORM SEWER - PVC DR35 PIPE AND FITTINGS TO CSA B185.1 (UNLESS OTHERWISE NOTED)
8. SANITARY SEWER - 300mm OR GREATER - PVC DR35 PIPE AND FITTINGS TO CSA B185.1 (UNLESS OTHERWISE NOTED)
9. WHERE POSSIBLE ALL UNDERGROUND PIPING TO HAVE A MINIMUM 1800mm OF COVER TO FINAL GRADE.
10. LATERAL CONNECTIONS SHALL BE FLUSH WITH INSIDE OF MAIN.
11. ROOF DRAINS ARE TO BE DISCHARGED TO THE SURFACE AND DIRECTED TO THE REAR OF THE PROPERTY.
12. PROVIDE MINIMUM 1000mm HORIZONTAL SEPARATION BETWEEN WATER SERVICES INSTALLED IN THE SAME TRENCH.
13. ALL BENDS ON SEWER LATERALS TO BE LONG RADIUS.
14. ALL SANITARY MANHOLES, SEWERS AND LATERALS TO BE PRESSURE TESTED. LATERAL TO BE PRESSURE TESTED PRIOR TO CONNECTION TO BUILDING PLUMBING.
15. CONTRACTOR TO PROVIDE CIVIL INSPECTION REPORT FOR ALL STORM AND SANITARY SEWERS AND LATERALS.

GENERAL - WATER SPECIFICATIONS

1. ALL WATERMAIN MATERIALS AND INSTALLATION TO BE IN ACCORDANCE WITH THE HALIFAX WATER DESIGN AND CONSTRUCTION SPECIFICATIONS (LATEST EDITIONS).
2. DO NOT INSTALL CURB STOPS OR VALVES IN DRIVEWAY OPENINGS.
3. THE VALVES ARE TO CLOSE COUNTER-CLOCKWISE AS INDICATED ON HWS 1080.
4. GATCH BASIN LEADS ARE TO BE INSTALLED UNDER THE WATERMAIN.
5. WHERE WATER LINES CROSS SANITARY OR STORM SEWERS PROVIDE MINIMUM 450mm VERTICAL CLEARANCE BETWEEN PIPES (UNLESS OTHERWISE NOTED).
6. PROVIDE THRUST RESTRAINT AT ALL BENDS, TEES, CAPS, AND HYDRANTS TO HWS 1070 & 1080.
7. PROVIDE MECHANICAL JOINT RESTRAINTS AT NEGATED LOCATIONS AS PER HWS 1080.
8. PROVIDE PIPE BEDDING IN ACCORDANCE WITH HWS 1440.
9. MANHOLE MINIMUM 1800mm AND MAXIMUM OF 3000mm OF COVER OVER WATER SERVICES UNLESS OTHERWISE NOTED. WHERE WATER LATERAL IS NOT 300mm ABOVE TOP OF SEWER LATERAL, PROVIDE 3 METRE SEPARATION TO SEWER LATERALS.
10. ALL SPRINKLER AND DOMESTIC SEWERS TO BE FLUSHED, CHLORINATED, PRESSURE TESTED AND SAMPLED FOR BACTERIOLOGICAL TESTING PER HALIFAX WATER STANDARDS.



- NOTES**
1. HWM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORM SEWER LATERALS EXTERNAL TO THE STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LANDINGS, STAIRS AND RAMP DETAILS.
 2. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ROOM DRAINAGE DESIGN.
 3. SEE ARCHITECTURAL DRAWINGS FOR LANDSCAPING AND RETAINING WALL DESIGN.

No.	Date	Revised	Description	App'd
5				
4	15 MAY 21		HALIFAX WATER COMMENTS ADDRESSED	ATA
3	07 APR 21		GRADING UPDATED	ATA
2	07 JAN 21		NATURAL GAS RELOCATED	ATA
1	22 DEC 20		ISSUED FOR PERMIT	

BLUE BASIN GROUP

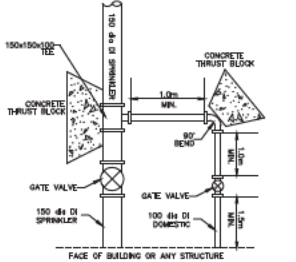
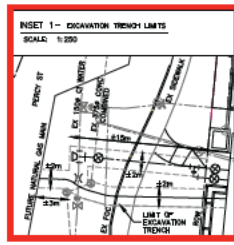
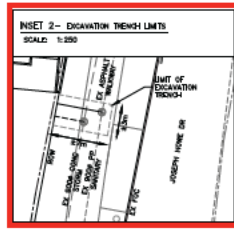
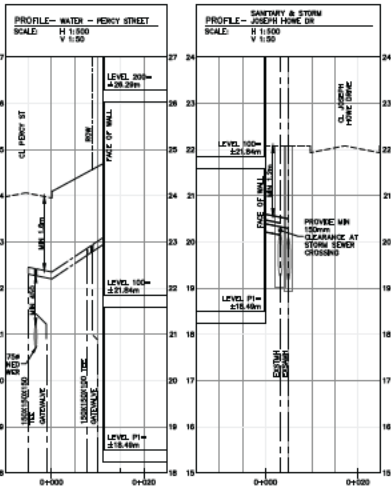


**JOSEPH HOWE DRIVE
PHASE 2
HALIFAX, NOVA SCOTIA**

SITE SERVICING

Date	Drawn	Project No.
December 22, 2020	STAFF	632
Scale	Engineer	FILE NAME
AS SHOWN	ATA	632-602.dwg
Reference	Approved	
Surveyed	Sheet	602
ATL		

PLAN
SCALE: 1:250



- NOTES**
1. CURB STOPS LARGER THAN 250mm TO HAVE VALVE BOX.
 2. SERVICE CONNECTION OFF SPRINKLER LINE REQUIRES APPROVAL FROM THE FIRE MARSHAL.
 3. CAPS ON SPRINKLER SERVICE VALVE BOXES TO READ "RST" AND CAPS ON DOMESTIC SERVICE VALVE BOXES TO READ "SDW".
- TYP. DOMESTIC & DETAIL - SPRINKLER CONNECTIONS
NOT TO SCALE

SPRINKLER	150 DI AWWA C151 SPECIAL CLASS DI	STORM	3.3m 300P PVC DR35
	SPRINKLER		STORM @ 2.00%
		SANITARY	4.8m 300P PVC DR35
			SANITARY @ 2.00%

Appendix A - Encroachment & Disruption Schedule

Project Phase	Activity	Item #	Street / Location	Encroachment	Reference Drawing Sheet See Appendix 1	Probable Closure Dates	Duration (Days)	Pedestrian Traffic Management Req'd	Vehicular Traffic Management Req'd	Comments
1	Driveways	1	Percy Street	Sidewalk and Street	A004	July 2023	8	Yes	Yes	2
		2	Percy Street	Sidewalk and Street	A004	July 2023	8	Yes	Yes	2
		3	Joe Howe Drive	Trail and Partial Traffic Lane	A004	July 2023	5	Yes	Yes	9
	Services	4	Percy Street	Sidewalk and Street	A004 & KVM S01	July / Aug 2022	5	Yes	Yes	3
		5	North End Trail	Northern Trail			5	Yes	No	6
		6	Joe Howe Drive	Joseph Howe Trail			5	No	No	5
	Gas	7	Percy Street	Sidewalk and Street	A004 & KVM S01	July / Aug 2022	2	Yes	Yes	3, 10
	U/G Electrical	8	Percy Street	Sidewalk	A004 & KVM S01	July / Aug 2022	2	Yes	Yes	3
	Foundation	9	Percy Street	Gravel Area Adjacent Sidewalk	A004	Sept 2021 to Aug 2022	15	No	No	1
		10	North End Trail	Northern Trail	A004		10	No	No	1
		11	Joe Howe Drive	Grass Median West side of Joseph Howe Trail	A004		15	No	No	1
2	Services	12	Percy Street	Sidewalk and Street	A003 & KVM S02	Sep 2022	5	Yes	Yes	3
		13	Joe Howe Drive	Joseph Howe Trail			5	Yes	No	5
	Gas	14	Percy Street	Sidewalk and Street	A003 & KVM S02	Sep 2022	2	Yes	Yes	3, 10
	U/G Electrical	15	Percy Street	Grass Median	A003 & KVM S02	Sep 2022	2	No	No	4
	Foundation	16	Percy Street	Grass Median	A003	Dec 2021 to Nov 2022	15	No	No	1
		17	Joe Howe Drive	Grass Median West side of North Trail			15	No	No	1
18		South HRM ROW	Vacant Land	10			No	No	1	

Comments:

1. Required occasionally and in isolated areas. No impact to pedestrians or vehicle movement.
2. These driveways exist and only require modifications. Pedestrian traffic will be redirected to west side of Percy. North bound lane will require narrowing for vehicle traffic
3. Partial street closure for U/G services, with vehicle traffic being redirected to west side during temporary closures. Sidewalk closures with pedestrians being redirected to west side sidewalk.
4. No pedestrian or vehicle disruption
5. Closure of Joseph Howe Trail for service installation. Pedestrian traffic will be redirected to the east sidewalk of Joseph Howe drive.
6. Temporary Northern Trail closure for service installation (1 to 2 days).
7. Temporary narrowing of Joseph Howe Trail.
8. Temporary narrowing of Percy Street sidewalk. Pedestrians could be redirected to west side sidewalk.
9. Narrowing of west south bound lane and/or redirect traffic to Joe Howe east south bound lane.
10. Gas service to be installed by Heritage Gas.

Appendix B – Traffic Control Plans (TCP)


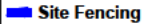
Encroachment Signage Plan



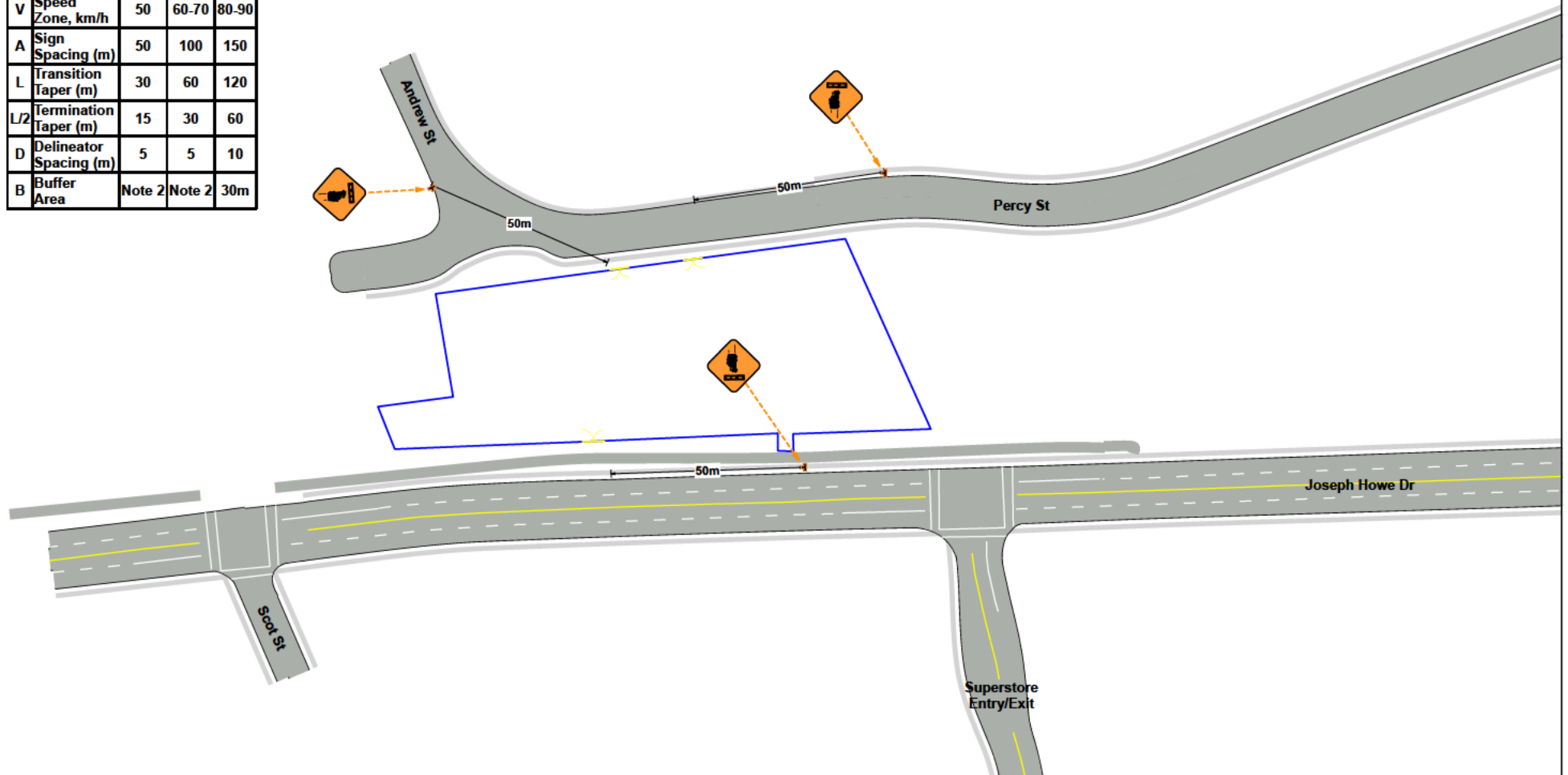
Date: 2021-08-10 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: New Residential Building
 Contrator: KVM Consultants Ltd Contact: Kent V. Morash, 902-499-4042

Comments:
 Not to Scale
 Encroachment Signage Plan
 Off Shoulder work area.
 Sidewalks and Chain of Lakes Trail to remain open

Legend

-  Gate
-  Site Fencing

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



General Traffic Plan for Joseph Howe Dr

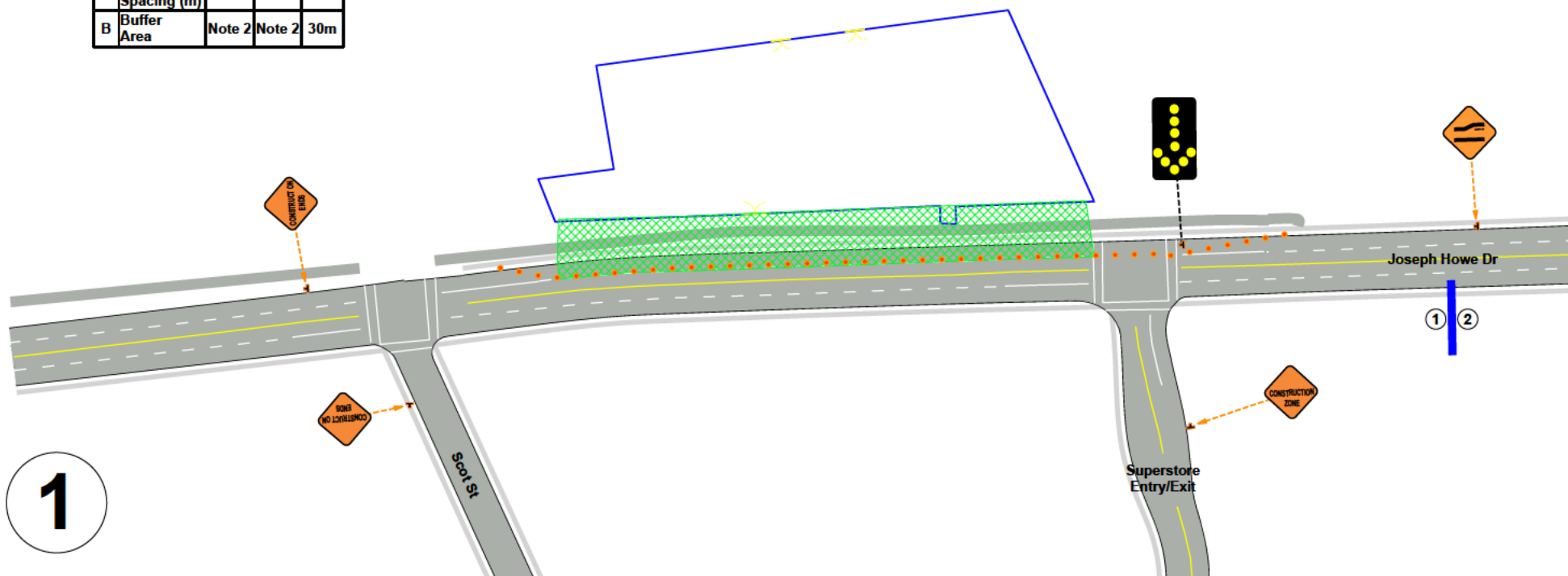
Legend	
	Barrel
	Gate
	Match Line
	Work Area



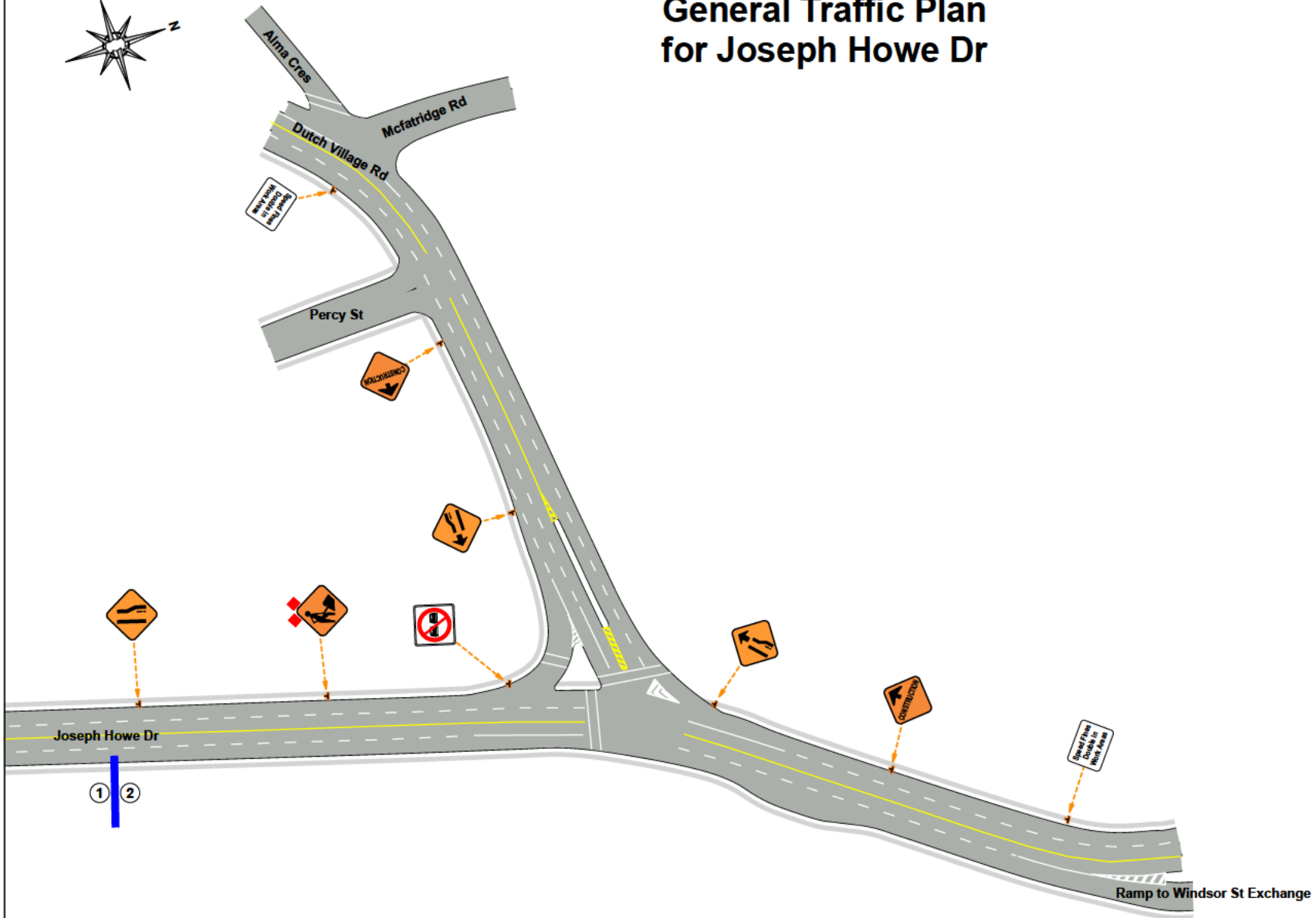
Date: 2021-08-10 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: New Residential Building
 Contrator: KVM Consultants Ltd Contact: Kent V. Morash, 902-499-4042

Comments:
 Not to Scale
 Application guide A63R
 Non-divided multi-lane road, work area contained to curb lane, therefore no downstream approach signage
 See Joseph Howe PMP for sidewalk closure details

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



General Traffic Plan for Joseph Howe Dr



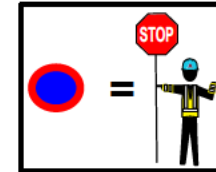
General Traffic Plan for Percy St



Date: 2021-08-10 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: New Residential Building
 Contractor: KVM Consultants Ltd Contact: Kent V. Morash, 902-499-4042

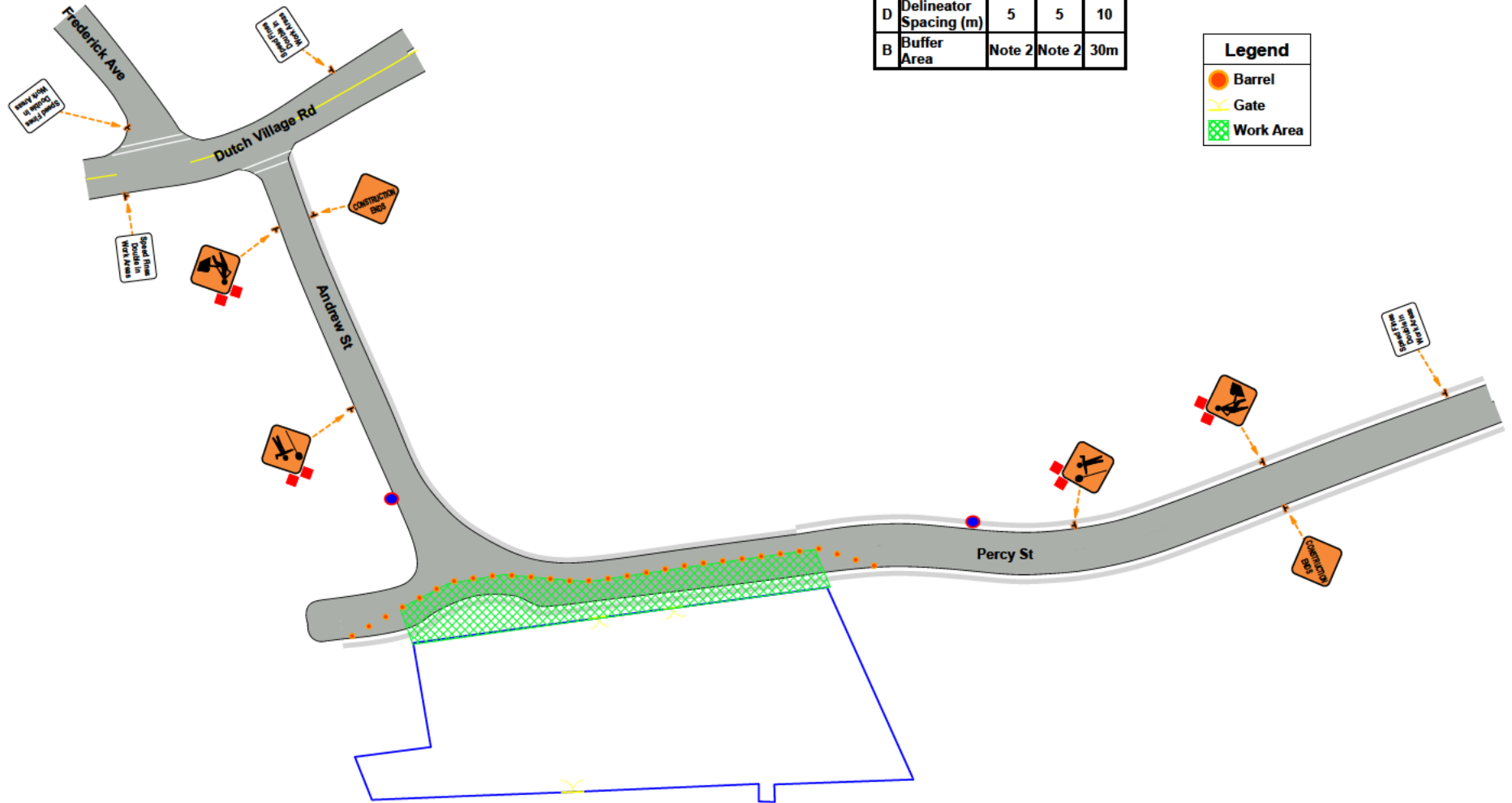
Comments:
 Not to Scale
 Application Guide C35
 Use this Plan when required by construction activities
 See Percy St PMP for sidewalk closure details

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



Legend

- Barrel
- Gate
- Work Area



Appendix C - Haul Route



Appendix D – Pedestrian Management Plan (PMP)






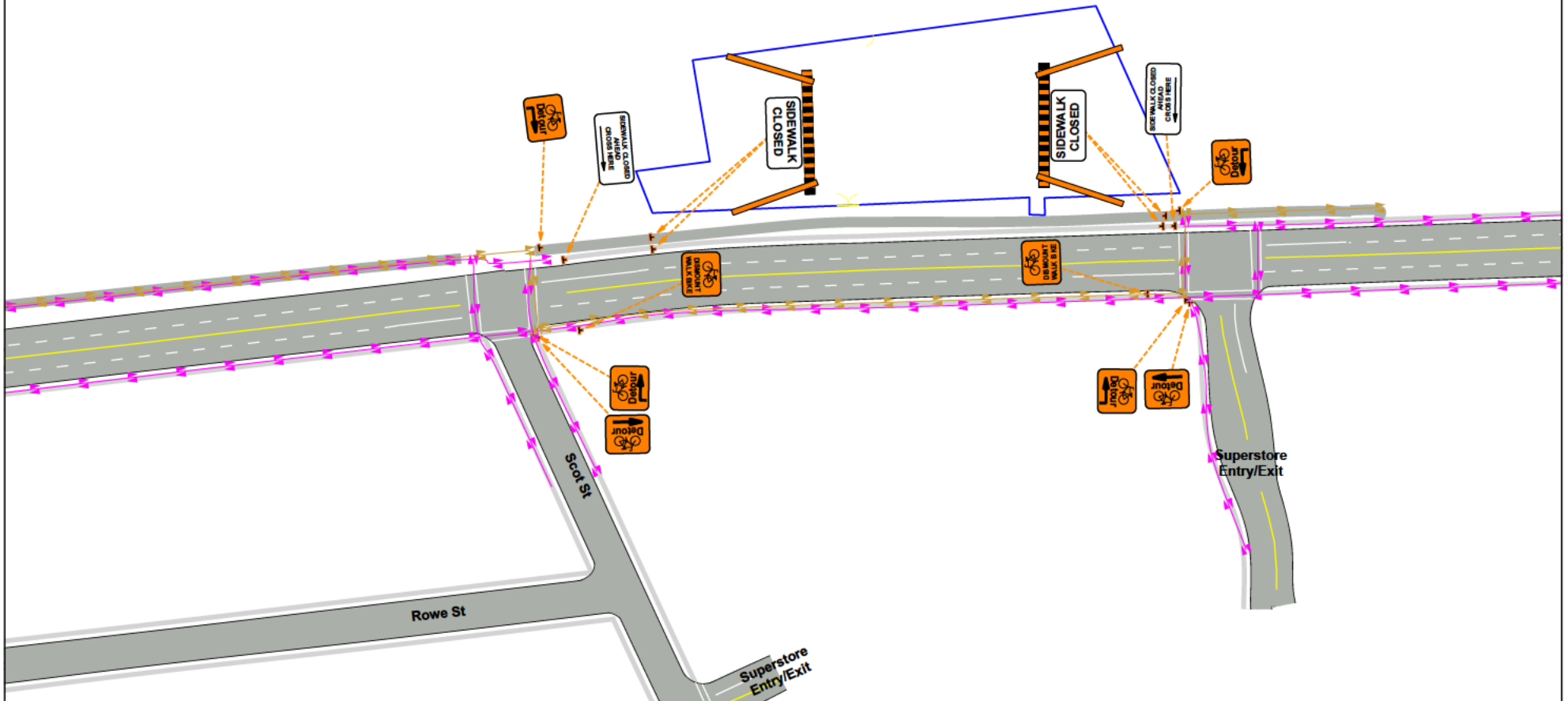
Pedestrian Management Plan for Joseph Howe Dr

Date: 2021-08-10 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: New Residential Building
Contrator: KVM Consultants Ltd Contact: Kent V. Morash, 902-499-4042

Comments:

Not to Scale
Pedestrian Management Plan for Joseph Howe Dr
Chain Of Lakes Trail will also require closure, therefore a bicycle detour to opposite side included

Legend	
	Bicycle Path
	Gate
	Pedestrian Route



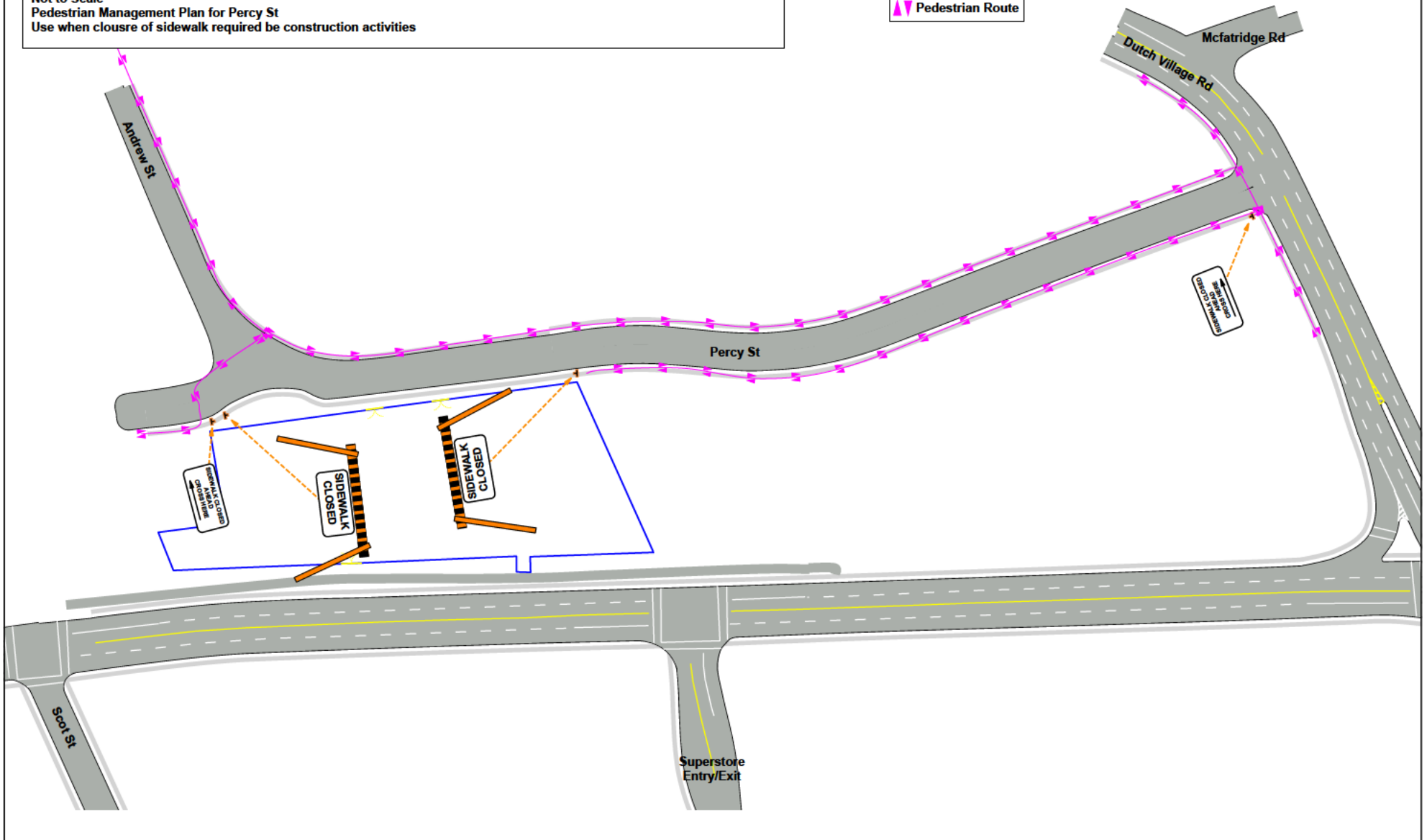


Pedestrian Management Plan for Percy St

Date: 2021-08-10 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: New Residential Building
Contrator: KVM Consultants Ltd Contact: Kent V. Morash, 902-499-4042

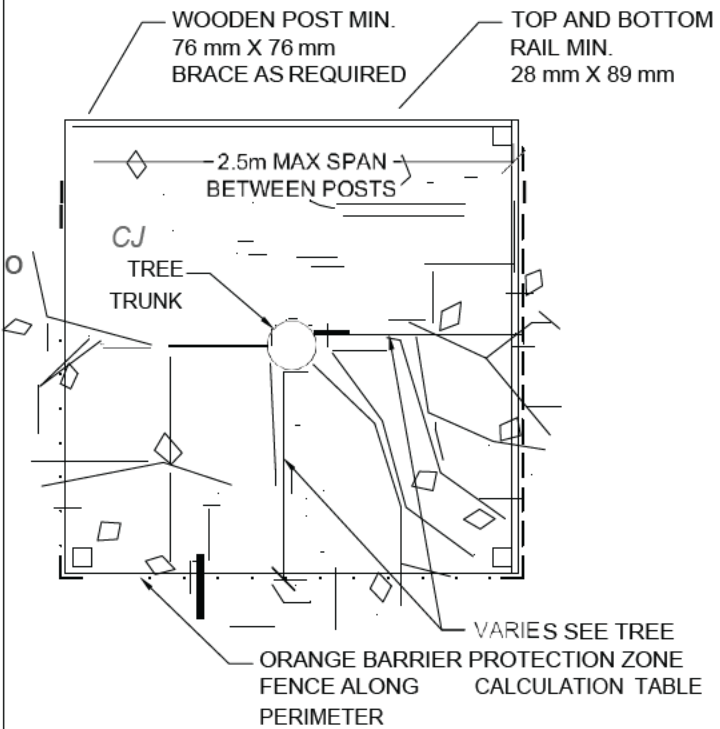
Comments:
Not to Scale
Pedestrian Management Plan for Percy St
Use when clousre of sidewalk required be construction activities

Legend	
	Gate
	Pedestrian Route



Appendix E - HRM Tree Protection

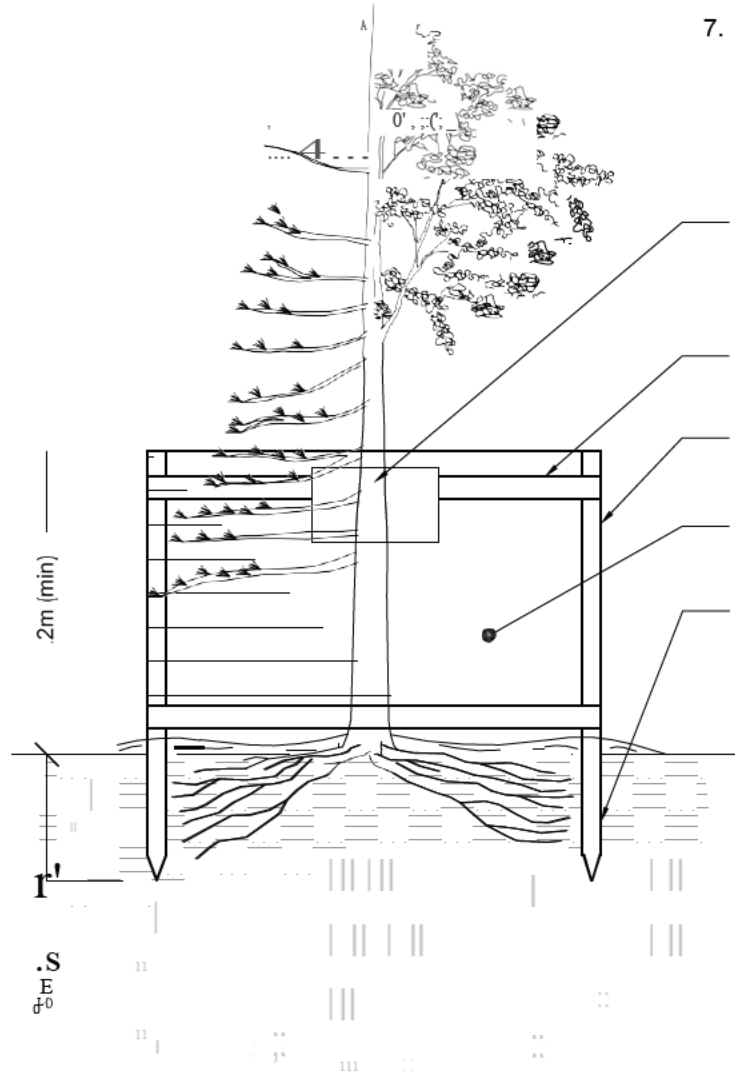
PLAN VIEW



NOTES:

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

PROFILE VIEW



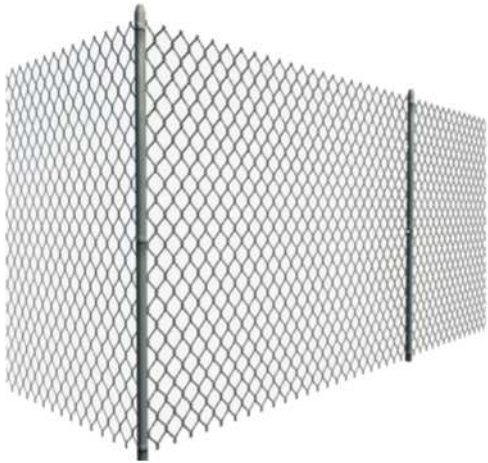
- SIGN, ON TWO (2) SIDES, TO READ:
TREE PROTECTION ZONE DO NOT REMOVE FENCE DURING CONSTRUCTION
- TOP AND BOTTOM RAIL MIN. 28mm X 89mm
- WOODEN POST MIN. 76mm X 76mm BRACE AS REQUIRED
- ORANGE BARRIER FENCE ALONG PERIMETER
- WOOD OR METAL POST BELOW GRADE. IF METAL IS SPECIFIED THE WOOD POST MUST BE BOLTED TO THE METAL POST

HALIFAX

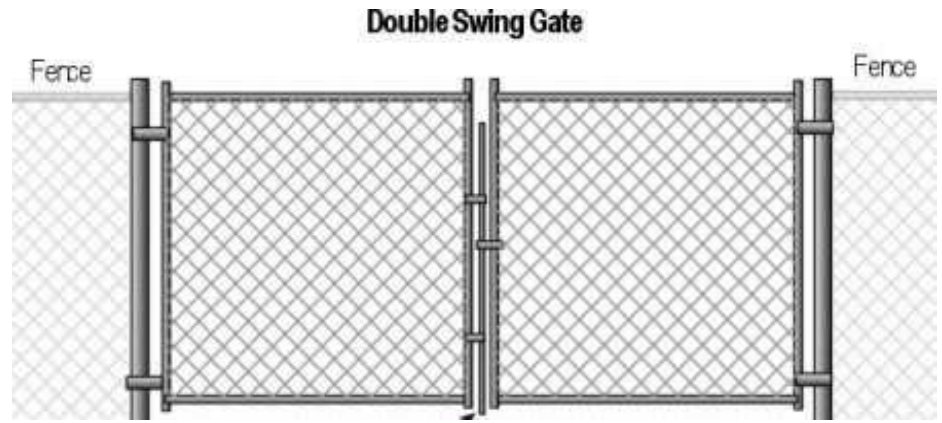
STANDARD DETAIL TREE PROTECTION ZONE & BARRIER

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

Appendix F – Barrier, Fence & Gates Information



Construction fence (Figure F1)



Construction gate (Figure F2)



Construction & Silt fence (Figure F3)



Plywood Fence (Figure F4)

Appendix G - Hoarding



Appendix G - Hoarding



Technical Data Sheet UltraMesh® Eclipse®

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

Material Details

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

Applications

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

Ink Printability

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

Available Sizes

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

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



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updated: 12/2016

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Del. Iztacalco, C.P. 09400, México D.F.
Tel: (52)31823632,3182 3658
01 800 822 52 31
Email: sales.mex@ultraflex.com

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Mexico
Tel: (52)33312-049-857

Appendix H – Project Information Board

DEVELOPMENT INFORMATION BOARD

JOSEPH HOWE & PERCY

Halifax

Developer

BlueBasin

Investments

1070 Barrington St
Halifax, NS, B3H 2R1
(902) 405-4699
info@bluebasin.ca



Construction Timeline

Start: July 2021
End: Oct 2023

Consultant



Suite B - 1070 Barrington St,
B3H 2R1 Halifax NS
info@bluebasin.ca

Project Manager

BlueBasin Investments
Georges Romanos, Eng.

Halifax, NS
(902) 405 4699
info@bluebasin.ca

Emergency Contact

BlueBasin Investments
Georges Romanos, Eng.

Halifax, NS
(902) 441 8940
info@bluebasin.ca

Appendix I – Project Safety Signage Samples

Construction Related Signs (NSTIR typical signs as noted within NS Road Safety standards)



Appendix J – Project Signage Specifications

Signage Specifications

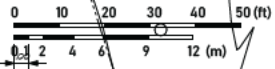
Project Signage shall :

- Be constructed of weatherproof material (corrugated plastic or similar)
- Include high visibility contrasting colours
- Include high visibility font types (upper & lower-case lettering etc.)
- Utilize large font sizes (16mm – 51mm) and be readable from a distance of 16m-20m
- Incorporate poster sized panels (600mm x 900mm) or larger
- Incorporate perimeter plastic grommets @ 300mm around sign for secure fastening
- Be secured to project fencing with plastic zip-ties
- Be installed along the project fencing
- Not impede traffic of pedestrian sight lines
- Installed 10 days prior to the start of construction activity to inform the public

SAMPLES



Appendix K - PH1 Crane



PERCY STREET

ENTRANCE TO P1

R 184' - 0"

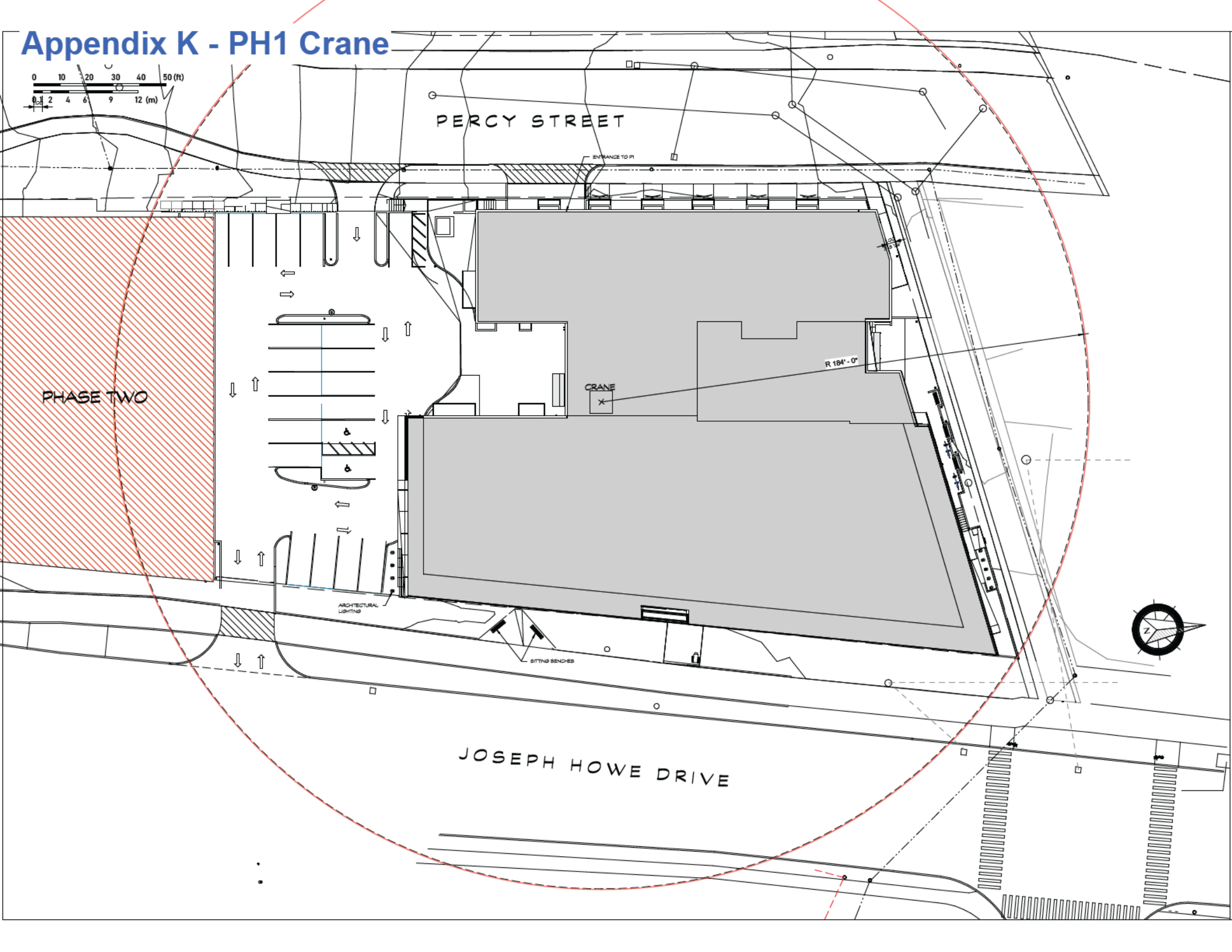
CRANE

PHASE TWO

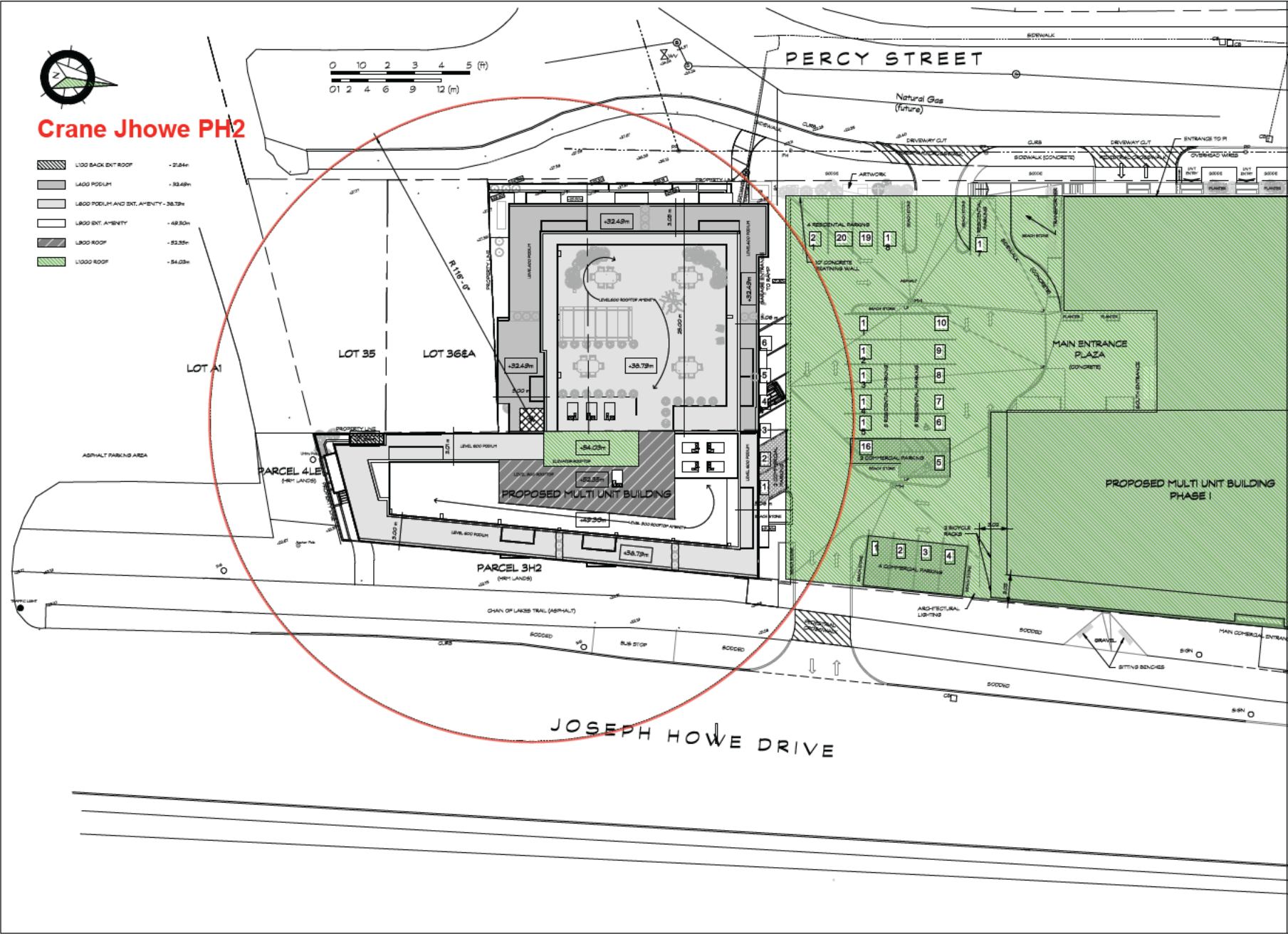
ARCHITECTURAL LIGHTING

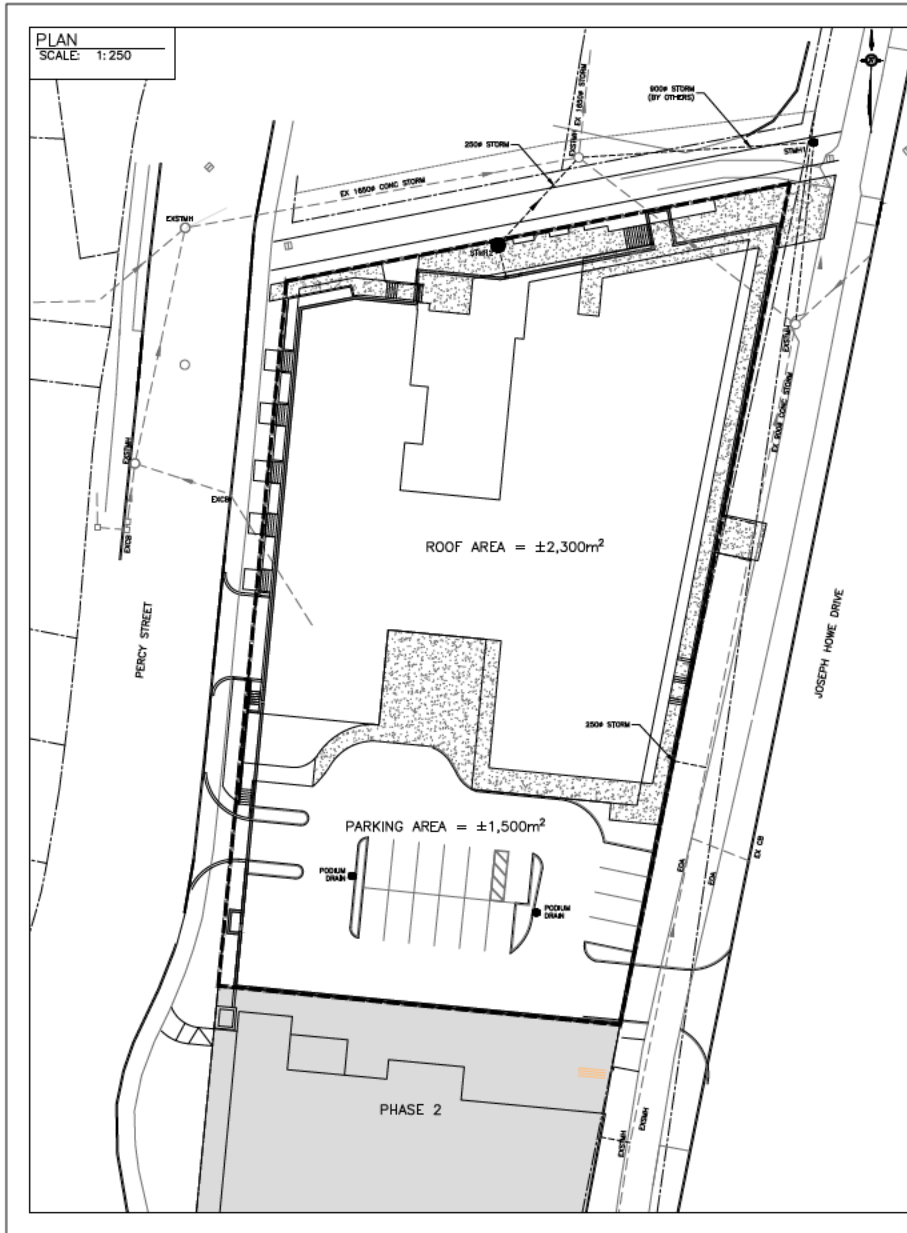
SITTING BENCHES

JOSEPH HOWE DRIVE



Appendix K - PH2 Crane





STORMWATER MANAGEMENT

SITE SURFACE COVERAGE (PRE)	
SURFACE AREA TYPE	AREA (m ²)
GRAVEL	1,850
ROCK	155
GRASS/REED	130

SITE SURFACE COVERAGE (POST)	
SURFACE AREA TYPE	AREA (m ²)
ASPHALT/CONCRETE	1,550
ROOF	2300
LANDSCAPED	0

FLOW COMPARISON		5-Year Peak (Runoff m ³ /s)	100-Year Peak (Runoff m ³ /s)	Storage Volume (m ³)
Pre-Development		0.043	0.184	
Post-Development (Controlled)	Reduced Parking ¹	0.018	0.081	2.8
	Roof ²	0.025	0.083	5.8
	Post-Development Total	0.043	0.164	

¹ Peak flow to be reduced using outlet control in internal storm piping. Storage to be provided in internal storm piping.
² Peak flow to be reduced using inlet control roof drains. Storage to be provided on flat roof.



Key Plan
Scale: NTS

NOTES

- KVM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORM SEWER LATERALS EXTERNAL TO THE STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LIGHTING, STOPS AND TRAMP SIGNALS.
- SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR POOLUM LANDSCAPING AND DRAINAGE DESIGN.

No.	Date	Revision	Description	App'd
1	11 MAY 21		ISSUED FOR PERMIT	ATA

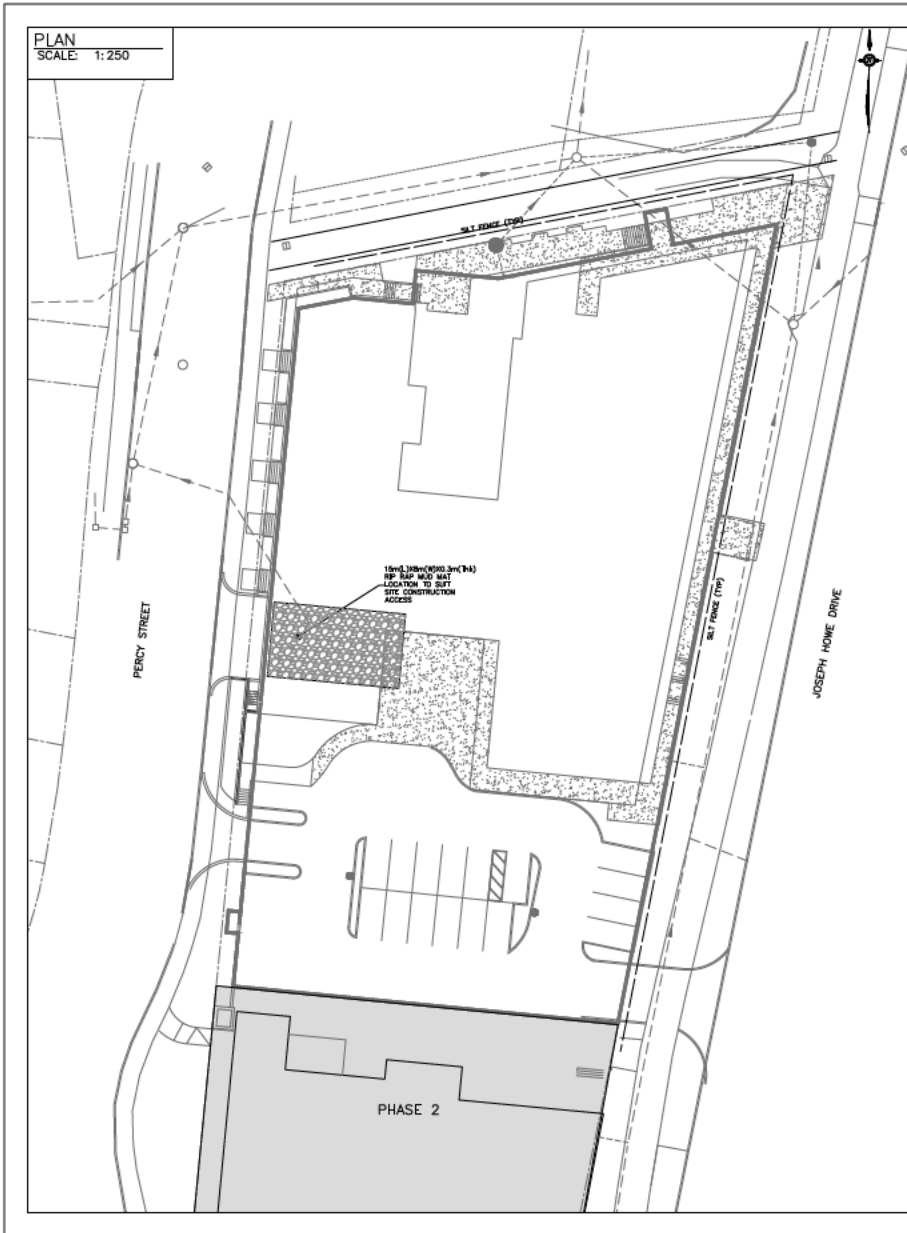
BLUE BASIN GROUP

JOSEPH HOWE DRIVE
HALFAX, NOVA SCOTIA

STORMWATER MANAGEMENT

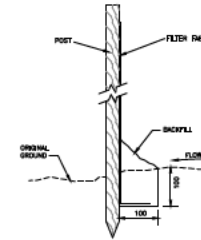
Date	October 30, 2020	Drawn	STAFF	Project No.	632
Scale	AS SHOWN	Engineer	ATA	FILE NAME	632-0801.dwg
Reference	Approved	Sheet	081		
Surveyed	ASL				

Appendix L - PH1 Erosion



EROSION AND SEDIMENT MITIGATION

1. THE FOLLOWING MEASURES ARE REQUIRED AS A MINIMUM:
 - a. THE CONTRACTOR SHALL MAINTAIN EXISTING VEGETATION TO REMAIN TO THE MAXIMUM EXTENT POSSIBLE AS A BUFFER TO PROTECT ADJACENT PROPERTIES AND TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
 - b. THE CONTRACTOR SHALL MAINTAIN EXISTING VEGETATION TO REMAIN TO THE MAXIMUM EXTENT POSSIBLE AS A BUFFER TO PROTECT ADJACENT PROPERTIES AND TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
2. CONSTRUCT PERMANENT AND TEMPORARY INTERCEPTION DITCHES AND SWALE DITCHES TO COLLECT SURFACE RUNOFF AND TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
3. CONSTRUCT PERMANENT AND TEMPORARY INTERCEPTION DITCHES AND SWALE DITCHES TO COLLECT SURFACE RUNOFF AND TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
4. CONSTRUCT PERMANENT AND TEMPORARY INTERCEPTION DITCHES AND SWALE DITCHES TO COLLECT SURFACE RUNOFF AND TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMEDIAL ACTION TO MITIGATE ANY EROSION OR SOIL FAILURE DURING CONSTRUCTION.
6. ANY SURPLUS TOPSOIL OR COMPOST IS TO BE REMOVED FROM THE SITE AND STORED IN A SECURE AREA. SOIL TO BE REMOVED FROM THE SITE SHALL BE STORED IN A SECURE AREA AND COVERED TO PREVENT EROSION.
7. CONSTRUCTION SHALL MAINTAIN A MINIMUM FOOTING AREA OF ONE (1) METRE TO PREVENT EROSION OF THE SITE DURING CONSTRUCTION.
8. SOIL ACCUMULATIONS TO BE REMOVED FROM SLOPE CONTROL STRUCTURES SHALL BE REMOVED FROM THE SITE AND STORED IN A SECURE AREA. SOIL TO BE REMOVED FROM THE SITE SHALL BE STORED IN A SECURE AREA AND COVERED TO PREVENT EROSION.
9. DISTURBED AREAS WHICH MAY REQUIRE REPAIRING TO BE USED FOR OTHER PURPOSES SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION. REPAIRING SHALL BE COMPLETED WITHIN A REASONABLE PERIOD OF TIME.
10. DIVERSION OF DISCHARGES WILL BE DIRECTED THROUGH FILTER FENCE AND TO THE STORM SEWER SYSTEM IN FINAL STABILIZATION.
11. SURFACE WATER DISCHARGES SHALL MEET PROVINCIAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL SAMPLE AND ANALYZE RUNOFF QUALITY DURING RAINFALL AND IN ACCORDANCE WITH TYPICAL REGIONAL PRACTICE.
12. REMOVAL OF ALL CONSTRUCTION MATERIALS AND EQUIPMENT FROM THE SITE SHALL BE COMPLETED WITHIN A REASONABLE PERIOD OF TIME.
13. UNLESS OTHERWISE NOTED A MINIMUM 6 METRE BUFFER IS TO BE MAINTAINED TO ALL ADJACENT PROPERTIES AND TO BE MAINTAINED AS AN UNDISTURBED AREA OF NATURAL VEGETATION.
14. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOVA SCOTIA ENVIRONMENTAL PROTECTION ACT AND THE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION SITES.
15. SLOPE CONTROL MAT TO BE CONSTRUCTED AT ALL SITE TRUCK ENTRANCES AND SHALL CONSIST OF STONE OR TIED DOWN STONE ROCK MAT OR LOG MATWORK DURING CONSTRUCTION TO LIMIT TRACKING OF MUD ONTO STREETS.



NOTES:

1. DISCHARGE A 100MM (4INCH) TRENCH IN A CHECKDAM SINKS ABOVE THE FLOW POOL WITH 100MM (4INCH) PAVING.
2. SET WOOD STAKES SUPPLIED BY MANUFACTURER. STAKE STAKES SHOULD BE SET 100MM (4INCH) FROM THE DOWNSTREAM SIDE OF THE TRENCH.
3. SIMPLE FILTER FRAME TO BE UPSTREAM SIDE OF THE STAKES, EXTENDING TO THE BOTTOM BOTTOM OF THE TRENCH.
4. FILTER FRAME SHOULD NOT EXCEED 100MM (4INCH) IN HEIGHT.
5. BACK FILL AND COMPACT THE SOIL IN THE TRENCH UNDER THE FILTER FRAME AND VEGEATE THE IMMEDIATELY.



Key Plan
Scale: NTS

NOTES

1. KVM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORM SEWER LATERALS EXTERNAL TO THE STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LIGHTING, STAIRS AND TRAMP STEALS.
2. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR POOLING, LANDSCAPING AND DRAINAGE DESIGN.

11 MAY 21	ISSUED FOR PERMIT	ATA
No.	Date	Revision Description App'd

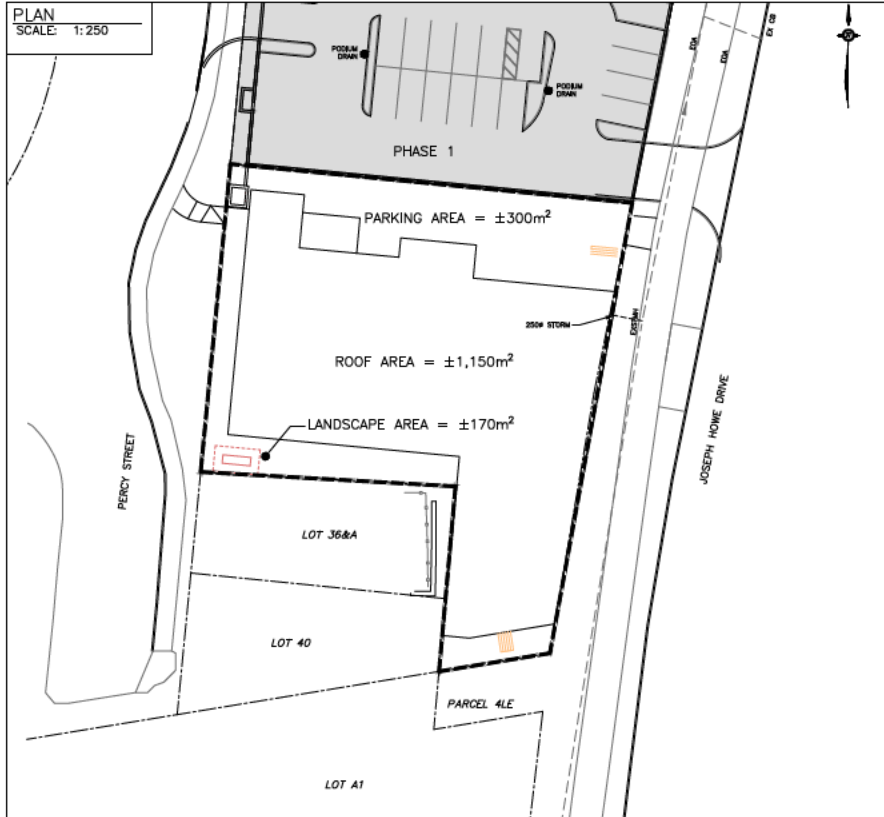
BLUE BASIN GROUP



JOSEPH HOWE DRIVE
HALFAX, NOVA SCOTIA

EROSION AND SEDIMENTATION CONTROL PLAN

Date	October 30, 2020	Drawn	STAFF	Project No.	632
Scale	AS SHOWN	Engineer	ATA	FILE NAME	632-ER.dwg
Reference	Approved				
Surveyed		Sheet	E1		



STORMWATER MANAGEMENT

SITE SURFACE COVERAGE (PRE)	
SURFACE AREA TYPE	AREA (m ²)
GRAVEL/ASPHALT	220
ROOF	400
GRASS/TREED	1,000

SITE SURFACE COVERAGE (POST)	
SURFACE AREA TYPE	AREA (m ²)
ASPHAL/CONCRETE	300
ROOF	1,150
LANDSCAPED	170

FLOW COMPARISON		5-year Peak Runoff (m ³ /s)	100-year Peak Runoff (m ³ /s)	Storage Volume (m ³)
Pre-Development		0.014	0.036	
Post-Development (Contrib)	Podium Parking ¹	0.007	0.014	
	Roof ²	0.007	0.027	0.0
	Post-Development Total	0.014	0.036	

¹ Drainage directed to Phase 1 podium drains.
² Peak flow to be reduced using inlet control roof drains. Storage to be provided on flat roof.



Key Plan
 Scale: NTS

NOTES

- KVM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORAGE LATERALS EXTERNAL TO THE STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LIGHTING, STOPS AND TRAP DETAILS.
- SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR PODIUM LANDSCAPING AND DRAINAGE DESIGN.

No.	Date	Revision	Description	App'd
1	11 MAY 21		ISSUED FOR PERMIT	ATA

BLUE BASIN GROUP

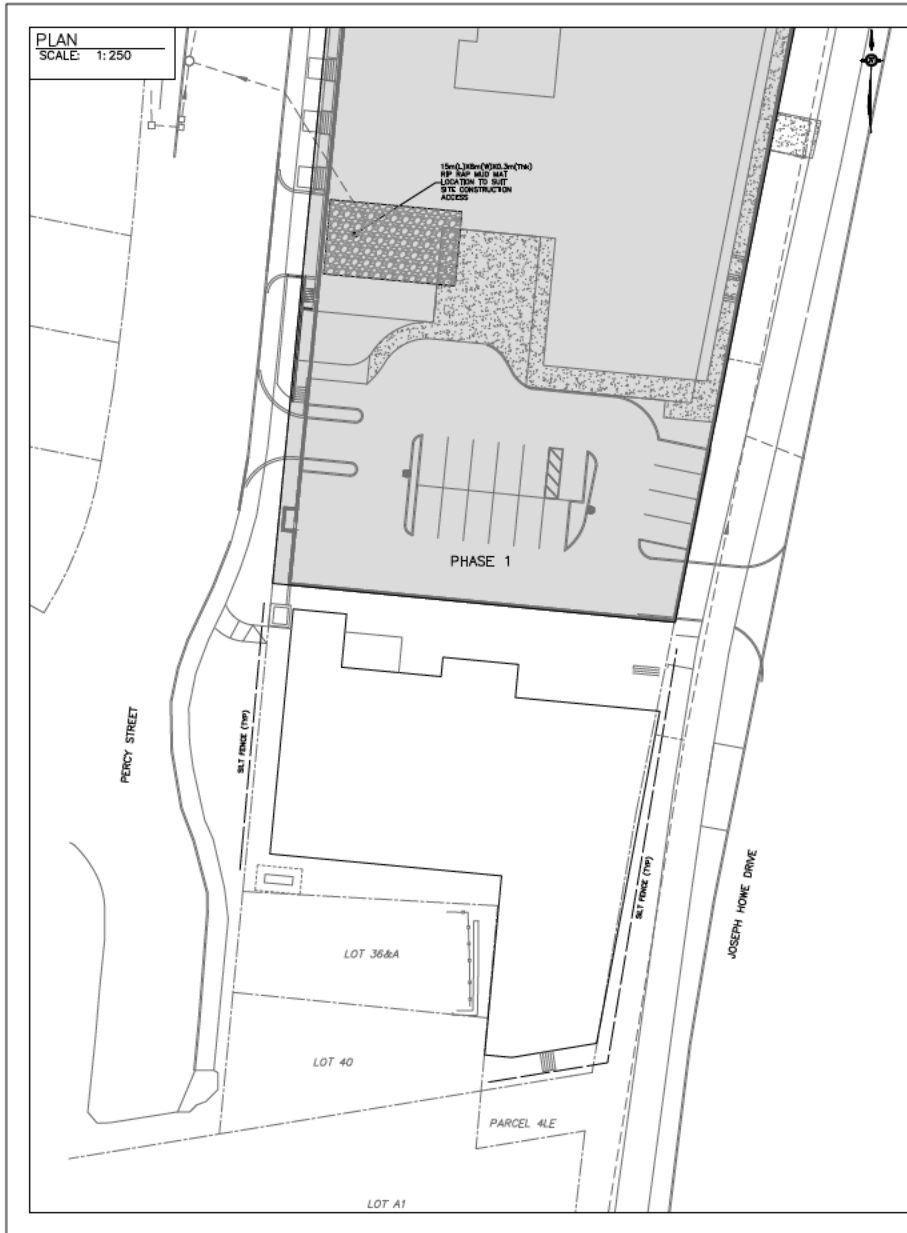


JOSEPH HOWE DRIVE
 PHASE 2
 HALIFAX, NOVA SCOTIA

STORMWATER MANAGEMENT

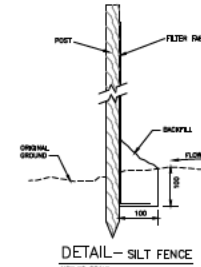
Date	October 30, 2020	Drawn	STAFF	Project No.	632
Scale	AS SHOWN	Engineer	ATA	FILE NAME	632-0802.dwg
Reference	Approved	Approved			
Surveyed	ASL	Sheet	082		

Appendix L - PH2 Erosion



EROSION AND SEDIMENT MITIGATION

- THE FOLLOWING MEASURES ARE PRESENTED AS A SUGGESTED BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT THESE MEASURES AS A MINIMUM. THE CONTRACTOR SHALL MONITOR AND MAINTAIN THESE MEASURES FROM TO FINAL STABILIZATION.
- INSTALL SILT FENCES AT ALL DOWNSTREAM/LOW POINT LOCATIONS. SILT FENCES ARE TO BE CONSTRUCTED AND MAINTAINED AS A SILENT FENCE. THE CONTRACTOR SHALL INSTALL PROTECTIVE MEASURES WHICH SILENT SITE CONDITIONS.
- CONSTRUCT PERMANENT AND TEMPORARY INTERCEPTION DITCHES AND SLOPE STABILIZATION SHOULD BE CONSIDERED FOR ALL SLOPE CONSTRUCTION METHODS AND SCHEDULING.
- CONSTRUCT SILT CONTROL AND COLLECTION STRUCTURES AS AND WHERE REQUIRED TO SUIT THE NATURE AND PROGRESS OF THE WORKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERMANENT ACTION TO REMOVE ANY EXCESSIVE OR EXPOSED EROSION CONTROL MEASURES OF THE CONTRACTOR.
- ANY SURPLUS TOPSOIL OR COMPOSTION IS TO BE REMOVED FROM THE SITE AND ANY EXCESSIVE STOCKPILES SHOULD BE COVERED WITH POLYPROPYLENE SHEET. SILT FENCES SHOULD BE MAINTAINED WITH POLYPROPYLENE SHEET TO COMPLETE IT PROMPTLY AND STABILIZE SURFACE BEFORE MOVING TO NEXT AREA.
- SILT ACCUMULATIONS TO BE REMOVED FROM SILT CONTROL STRUCTURES REGULARLY ON A REGULAR BASIS. SILT IS TO BE HAND COLLECTED AND DEPOSITED OR OFF-SITE OR STABILIZED IN DISTURBED AREAS.
- DISTURBED AREAS WHICH MAY REQUIRE REPAIRING TO BE THE RESULT OF EROSION, SETTLEMENT OR OTHER CAUSES SHALL BE REPAIRED PROMPTLY TO RESTORE TO ORIGINAL OR BETTER CONDITION. PROMPT COMPLETION OF STRUCTURES AND PLACEMENT OF PERMANENT LANDSCAPING.
- DISBURSING OF DISBURSINGS WILL BE DIRECTED THROUGH FILTER FENCE AND/OR TRAP AND TRAP DEVICES. THE FILTER FENCE SHALL BE MAINTAINED TO THE STORM SEWER INTAKE PIPES IN FINAL STABILIZATION.
- SURFACE WATER DISCHARGES SHALL MEET PROVINCIAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL SAMPLE AND ANALYZE RUNOFF QUALITY DURING RAINFALL AND IN ACCORDANCE WITH TYPICAL REGIONAL PRACTICE.
- BEFORE ANY CONSTRUCTION ACTIVITIES BEGINNING FOR A PERIOD OF ONE YEAR ALL SILT CONTROL MEASURES SHALL BE MAINTAINED AND MONITORED. THESE MEASURES SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE CONSTRUCTION PERIOD AND SHALL BE MAINTAINED AS A MINIMUM 6 METRE BUFFER IS TO BE MAINTAINED TO ALL WATER BODIES. BUFFER IS TO BE MAINTAINED AS AN UNDISTURBED AREA OF NATURAL VEGETATION.
- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOVA SCOTIA ENVIRONMENTAL PROTECTION ACT AND THE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION SITES.
- MUD CONTROL MAT TO BE CONSTRUCTED AT ALL SITE TRUCK ENTRANCES AND SHALL CONSIST OF STONE OR TIED CROWN STONE ROCK MAT BE LOW IMPACT DURING CONSTRUCTION TO LIMIT TRACKING OF MUD ONTO STREETS.



- NOTES:**
- DISBURSE A 100MM (4 INCH) TRENCH IN A CHECKDAM SINCE ABOVE THE FLOW HOLES WITH 100MM (4 INCH) TRENCH.
 - SILT WOOD STAKES SUPPLIED BY MANUFACTURER. DRIVE STAKES SHOULD BE SETTING 1.0M APART ALONG THE DOWNSTREAM SIDE OF THE TRENCH.
 - SIMPLE FILTER FABRIC TO BE UPSTREAM SIDE OF THE STAKES, EXTENDING TO THE BOTTOM BOTTOM AND THE TRENCH.
 - FILTER FABRIC SHOULD NOT EXCEED 100 MM HEIGHT.
 - BACK FILL AND COMPACT THE SOIL IN THE TRENCH UNDER THE FILTER FABRIC AND VIBRATE THE IMMEDIATELY.



- NOTES**
- KVM CONSULTANTS LIMITED RESPONSIBILITY IS LIMITED TO THE WATER SERVICE LATERALS, SANITARY SEWER AND STORM SEWER LATERALS EXTERNAL TO THE STRUCTURE. WORK TO ARCHITECTURAL DRAWINGS FOR LANDSCAPING, RETAINING WALLS, LIGHTING, STAIRS AND TRAMP SIGNALS.
 - SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR POOL/LANDSCAPING AND DRAINAGE DESIGN.

No.	Date	Revision	Description	App'd
1	11 MAY 21		ISSUED FOR PERMIT	ATA

BLUE BASIN GROUP

Original Signed

KVM
Consultants Ltd.

11 Commercial Street, Suite 101, Halifax, NS
Nova Scotia B3H 2Y9
Tel: 902-424-1111
Fax: 902-424-1112
E-mail: info@kvm.ca

**JOSEPH HOWE DRIVE
PHASE 2
HALIFAX, NOVA SCOTIA**

**EROSION AND SEDIMENTATION CONTROL
PLAN**

Date	October 30, 2020	Drawn	STAFF	Project No.	632
Scale	AS SHOWN	Engineer	ATA	FILE NAME	632-ERD.dwg
Reference	Approved	Sheet	ET		
Surveyed	ASL				

Appendix M – Vehicular and Pedestrian Hazard Assessment

No.	Hazard:	Project Phase:	Vehicular Impacts:	Mitigation Methods:	Pedestrian Impacts:	Mitigation Methods:
1	Excavation	Excavation	Vehicles may enter project site and fall down excavation.	Place concrete barriers along travel ways. Concrete barriers and existing curbs to prevent vehicle entry.	Pedestrians may enter project site and fall down excavation.	Place concrete barriers / rigid fencing around entire site.
			Vehicle weight may surcharge excavation, causing excavation wall failure.	Closesidewalks&drivewaysadjacenttosite, movingvehicles farther away from excavation.		
2	Rock Blasting	Excavation	Blasted rock projectiles may strike vehicles.	Close sidewalks & driveways adjacent to site, moving vehicles farther away from blasted rock.	Blasted rock projectiles may strike pedestrians.	Install plywood hoarding along rigid fence adjacent to blasting zone.
3	Construction Waste	All Phases	Vehicles may be struck by construction waste.	Contractor shall keep the site and surrounding areas clean and free of construction debris.	Pedestrians may be struck by construction waste.	Contractor shall keep the site and surrounding areas clean and free of construction debris.
4	Vehicular & Pedestrian Activities	All Phases	Drivers & Pedestrians may become confused or impatient w 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 & Pedestrians may become confused or impatient with construction activities. Pedestrians may walk in unmarked crosswalks or in vehicular travel areas. Drivers may fail to obey traffic signage.	Vehicular and pedestrian signage will be posted prominently around the project site to facilitate pedestrian movement. Notification will be sent prior to all traffic interruptions.
5	Heavy Machinery Operation	All Phases	Heavy machinery or vehicles may break down or overturn, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site. Concrete barriers will be installed to separate construction vehicles from public traffic.	Heavy machinery or vehicles may break down or overturn, injuring pedestrians.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery. Rigid fences will be installed to separate construction vehicles from pedestrians.
			Heavy machinery or vehicles may overturn due to uneven terrain, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site and ensure travel routes are kept flat.	Heavy machinery or vehicles may overturn due to uneven terrain, injuring pedestrians. Pedestrians may walk on uneven terrain causing them to twist their ankles or fall.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery and ensure travel routes are kept flat.
6	Construction Signage	All Phases	Construction signage may strike vehicular traffic.	Construction signage will be securely fixed to existing poles, temporary concrete sign bases, or rigid fences.	Pedestrians may walk into construction signage, including traffic signage, wayfinding signs, etc	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 asphalt 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 asphalt 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 N – Sample Traffic Notification Letter



Blue Basin Investments – Joseph Howe

NOTIFICATION LETTER

TO WHOM IT MAY CONCERN

Date

Re: NOTIFICATION OF TRAFFIC DISRUPTION: Joseph Howe Dr & Percy St., HALIFAX, NS

Please be advised that construction related 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 work.

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

CONTACT INFORMATION

General Contractor:

Blue Basin Investments
Suite B - 1070 Barrington Street
Halifax, NS, B3N 2R1
Phone: (902) 405-4699

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

Yours Truly

Blue Basin Investments



THE MOST ADVANCED LOW-PROFILE BAIT STATION



PRODUCT FEATURES:

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

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



More Than Meets The Eye

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

www.belllabs.com

ALL-WEATHER
BLOX™



CONTRAC®
ALL-WEATHER BLOX™

KILLS RATS, MICE & MEADOW VOLES*

Kills Warfarin Resistant Norway Rats

KEEP OUT OF REACH OF CHILDREN

CAUTION

See back panels for First Aid and additional precautionary statements.

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS†: 99.995%

†Contains Denatonium Benzoate TOTAL 100.000%

NET WT:
18 lbs (8.2 kg)

*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 1-877-654-2494, 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 1-877-654-2494 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 K₁. If needed, check prothrombin times every 3 days until values return to normal (up to 30 days). In severe cases, blood transfusions may be needed.

DIRECTIONS FOR USE

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

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

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

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

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

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

587CB-10

CONTRAC®

ALL-WEATHER BLOX™

KILLS RATS, MICE, AND MEADOW VOLES*

Kills Warfarin Resistant Norway Rats

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

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS: 99.995%

Contains Denatonium Benzate TOTAL 100.000%

KEEP OUT OF REACH OF CHILDREN CAUTION

See side panels for First Aid and additional precautionary statements.

STORAGE AND DISPOSAL

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

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

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

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

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

NET WEIGHT: 18 lbs (8.2 kg)

EPA REG. NO. 12455-79

EPA EST. NOS. 12455-WI-1K, 12455-WI-2P, 12455-WI-3W

Superscript is first letter of the lot number.

Manufactured by:



3889 Kinsman Blvd.
Madison, WI 53704 U.S.A.
www.bellabs.com
MADE IN USA

DIRECTIONS FOR USE (Continued from other panel)

Burrow baiting with CONTRAC® All-Weather Blox is prohibited.

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

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

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

APPLICATION DIRECTIONS:

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

MICE AND MEADOW VOLES*: Place 1 block per placement. Space placements at 6- to 12-foot intervals in infested areas. Two blocks may be needed at points of very high activity. Maintain an uninterrupted supply of fresh bait for at least 15 days or until signs of mouse or meadow vole* activity cease.

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

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

User Safety Requirements

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

ENVIRONMENTAL HAZARDS

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

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

Product Code: CB4051

121718/10-15





DETEX[®] BLOX with LUMITRACK

SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA
Hazard Communication Standard 29 CFR 1910.1200

DATE OF ISSUE:
January 2020

PREPARED BY:
CAR

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

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

MANUFACTURER/SUPPLIER:

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

SECTION 2. HAZARDS IDENTIFICATION

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

SECTION 4. FIRST AID MEASURES

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

SECTION 5. FIRE-FIGHTING MEASURES

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

SECTION 7. HANDLING AND STORAGE

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Established Limits

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

Appropriate Engineering Controls: None. Non-Toxic

Occupational exposure limits: None. Non-Toxic

Personal Protective Equipment:

Respiratory protection: Not required

Eye protection: Not required

Skin protection: None. Non-Toxic

Hygiene recommendations: None. Non-Toxic

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance/Color:	Tan wax block
Odor:	Sweet grain-like
Odor Threshold:	No Data
pH:	No Data
Melting point:	No Data
Boiling point:	No Data
Flash point:	No Data
Evaporation rate:	No Data
Flammability:	No Data
Upper/lower flammability or explosive limits:	No Data
Vapor Pressure:	No Data
Vapor Density:	No Data
Relative Density:	1.13 g/mL @ 20°C
Solubility (water):	No Data
Solubility (solvents):	No Data
Partition coefficient: n-octanol/water:	No Data
Auto-ignition temperature:	No Data
Decomposition temperature:	No Data
Viscosity:	No Data

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not Applicable

Chemical stability: Not Applicable

Possibility of hazardous reactions: Refer to Hazardous decomposition products

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

Incompatible materials: Not Applicable

Hazardous decomposition products: Not Applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

LD50, oral (ingestion): Not Toxic

LD50, dermal (skin contact): Not Toxic

LC50, inhalation: Not Toxic

Skin corrosion/irritation: Not Toxic

Serious eye damage/Irritation: Not Toxic.

Respiratory or skin sensitization: Not Toxic

Germ cell mutagenicity: Not Toxic

Carcinogenicity: Not Toxic

Components	NTP	IARC	OSHA
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Trade Name: Detex Blox with Lumitrack

Supplier: Bell Laboratories, Inc.

Date Created: January 2020

Page 2 of 3

None	NA	NA	NA
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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.
RCRA Waste Status: This product is not regulated as a hazardous waste under Federal law.

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 listed
CERCLA/SARA 302: Not listed
PROPOSITION 65: Contains no components subject to warning requirement.

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
HMS	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.



Ace Pest Control, a TERMINIX Company
2257 Lawrencetown Rd. Lawrencetown Nova Scotia 822 117
Tel (902) 465-8118

Pest Control Report

Name: _____ **PO#** _____
Date= _____
Time: _____
Location: _____
Reason for Report: _____

Report= _____

Client's Signature: _____
Technician's Signature: _____