



Project Description

Insect Control Branch Heliport Relocation

FINAL

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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|-----------|--|
| Agency | Canadian Environmental Assessment Agency |
| AMPMM | Asset Management Project Management Manual |
| AWSA | Agrichemical Warehousing Standards Association |
| BRT | Bus Rapid Transit |
| CEAA 2012 | <i>Canadian Environmental Assessment Act, 2012</i> |
| City | City of Winnipeg |
| COSEWIC | Committee on the Status of Endangered Wildlife in Canada |
| DFO | Fisheries and Oceans Canada |
| EAP | Environment Act Proposal |
| ICB | Insect Control Branch |
| gpm | Gallons per Minute |
| km | kilometre |
| L/s | Litres per Second |
| LAA | Local Assessment Area |
| L | Litre |
| m | metre |
| MBCA | <i>Migratory Birds Convention Act, 1994</i> |
| MBCDC | Manitoba Conservation Data Centre |
| MCP | Mosquito Control Program |
| MDL | Maximum Desirable Level |
| MESEA | <i>The Endangered Species and Ecosystems Act</i> |
| mg/L | milligrams per Litre |
| mm | millimetre |
| MMF | Manitoba Metis Federation |
| MSD | Manitoba Sustainable Development |
| NFC | National Fire Code |
| NFPA | National Fire Protection Association |
| RAA | Regional Assessment Area |
| SARA | <i>Species at Risk Act</i> |
| SEWPCC | South End Water Pollution Control Centre |
| TAC | Technical Advisory Committee |
| TDG | Transportation of Dangerous Goods |
| TH | Test Hole |
| TLE | Treaty Lands Entitlement |
| TMP | Transportation Master Plan |
| W | Well |

1.0 GENERAL INFORMATION AND CONTACTS

1.1 NATURE OF THE PROJECT AND PROPOSED LOCATION

To accommodate future expansion of the City of Winnipeg (the “City”) Bus Rapid Transit (BRT) project, the City is proposing to relocate the existing heliport and Insect Control Branch (ICB) operations base, currently located at 3 Grey Street, to a City-owned property adjacent to the South End Water Pollution Control Centre (SEWPC), northeast of 2641 St. Mary’s Road (Figure 1). The proposed Project would also include the relocation of another ICB facility from 1539 Waverley Street to the proposed Project site.

The ICB has a long term insect control strategy to reduce the necessity for controlling adult nuisance mosquitoes. Beginning in 2005, a biological based larviciding program was introduced to reduce the City’s use of chemical pesticides and reduce the City’s reliance on adult mosquito control. The Mosquito Control Program (MCP) includes a strategy⁽¹⁾ which is based on: Surveillance; Larviciding; Source Reduction; Public Awareness; and Adulticiding.

The largest component of the MCP is the larviciding operation. The insect control strategy calls for an aggressive larviciding program as it is the most effective and environmentally acceptable method of mosquito population reduction. The City conducts larviciding by focusing on all known larval development sites within the City of Winnipeg, including public and private property, and up to 12 km beyond the City limits. Larviciding operations are carried out from late-April through September every year. Larviciding crews work 7 days per week, especially when excessive rainfall causes the widespread hatching of mosquito eggs in floodwater larval development sites⁽²⁾. Various types of equipment including truck mounted equipment, backpacks, ATVs and helicopters are used to apply a combination of biological and biorational larvicides. The ICB uses helicopters to apply granular larvicides including *Bacillus thuringiensis var.israelensis*, known as Bti under the trade names Vectobac[®] 200G; and *Bacillus sphaericus* under the trade name Vectolex[®] CG. Helicopters also use Methoprene under the trade name Altosid[®] - Granular (methoprene).

The heliport serves spray equipped helicopters for insect control and Air Ambulance helicopters for both medevac and patient transfer flights and operates under a Heliport Certificate issued by the Minister of Transport Canada ⁽³⁾.

1.2 PROPONENT INFORMATION

1.2.1 Name of the Project

The Project name is “City of Winnipeg Insect Control Branch Relocation Project” (the Project).

1.2.2 Name of the Proponent

The proponent of the proposed Project is the City of Winnipeg, Public Works Department, Insect Control Branch.

1.2.3 Address of the Proponent

The address of the proponent is:

The City of Winnipeg
Public Works Department
106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

1.2.4 Chief Executive Officer

The City of Winnipeg is a municipal government and, therefore, does not have a Chief Executive Officer, as such refer to the principal contact person identified in Section 1.2.5.

1.2.5 Principal Contact Person

The principal contact person for the Project description, and for environmental matters related to the proposed Project, is:

Mr. Jason Bell

Parks Capital Projects Manager
City of Winnipeg, Public Works Department

Address:

106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

Phone: (204) 986-4354
Email: JBell@winnipeg.ca

1.3 JURISDICTIONS AND OTHER PARTIES CONSULTED

Preparation of this Project Description involved staff at the City of Winnipeg, Public Works Department, who provided much of the background information for the existing operation of the ICB. Engagement letters were sent to several First Nations and the Manitoba Metis Federation (MMF) who have lands or interests within the Regional Assessment Area (RAA). Additional information regarding Indigenous engagement is included in Section 6.0. Prior to initiation of this Project, in November 2011, the Winnipeg City Council approved the Transportation Master Plan (TMP), a comprehensive guide to how, when, and where the City's transportation system will be developed in the future. The plan was the result of many years of planning and included a range of consultation activities with members of the public and interested stakeholders in 2010 and 2011. The TMP was developed to guide the planning, development, renewal and maintenance of a multimodal transportation system in a manner that is consistent with projected needs, and aligned with Winnipeg's growth and the overall vision for a sustainable city and region ⁽⁴⁾. Those engaged in TMP discussions included regulatory bodies, business, transportation, development, Indigenous groups and other key stakeholders. A list of stakeholders engaged as part of the TMP is included in Section 7.0.

1.4 ENVIRONMENTAL ASSESSMENT & REGULATORY REQUIREMENTS

1.4.1 *Canadian Environmental Assessment Act, 2012*

The proposed Project involves development of a new heliport and associated operations infrastructure on private land owned by the City. The proposed Project, being development of a heliport (an aerodrome), is a designated project under the *Canadian Environmental Assessment*

Act, 2012 (CEAA 2012). Therefore, the proposed Project may require an environmental assessment under CEAA 2012, subject to federal and public review of this Project Description under the provisions of that legislation.

1.4.2 Provincial Acts and Regulations

The proposed Project involves construction of three single-storey buildings which will serve as a helicopter hangar, base of operations and chemical and biological substances warehouse. The development would be considered a Bulk Materials Handling Facility, a Class 1 development pursuant to the *Classes of Development Regulation* and will require an Environment Act Licence under *The Environment Act* (Manitoba). An Environment Act Proposal (EAP) was submitted to Manitoba Sustainable Development (MSD) on December 4, 2017 and advertised in the Saturday edition of the Winnipeg Free Press on January 27, 2018. The EAP is currently being reviewed and an Environment Act License has not yet been issued for the Project. In addition to the EAP and licensing requirement under *The Environment Act*, provincial permits and approvals will be sought, as required, for construction and operation activities.

The construction and operation of the proposed Project is subject to all applicable provincial and federal legislation, guidelines, codes and standards, including the following provincial acts and regulations:

- *The Contaminated Sites Remediation Act*
The principal purpose of this Act is to provide for the remediation of contaminated sites and impacted sites, in accordance with the principles of sustainable development, in order to reduce or mitigate the risks of further damage to human health or the environment and, where practicable, to restore such sites to useful purposes. Should there be a spill at the project site, this Act may apply.
- *The Dangerous Goods Handling and Transportation Act*
 - *Dangerous Goods Handling and Transportation Regulation*
 - *Environmental Accident Reporting Regulation*
 - *Generator Registration and Carrier Licensing Regulation*
 - *Storage and Handling of Petroleum Products and Allied Petroleum Products Regulation*

The Act and regulations outline the compliance requirements for handling or disposing of dangerous goods such as fuel and pesticides used in ICB operations.

- *The Endangered Species and Ecosystems Act*
 - *Threatened, Endangered and Extirpated Species Regulation*

The purpose of the Act is to ensure the protection and enhance the survival of threatened and endangered species and species of special concern in Manitoba; enable reintroduction of extirpated species into the province; conserve and protect endangered and threatened ecosystems in the province and promote the recovery of those ecosystems; designate species as species of special concern, threatened, endangered, extirpated or extinct; and designate ecosystems as endangered or threatened. The Act protects species that may be threatened or endangered by the Project.

- *The Environment Act (Manitoba)*
 - *Classes of Development Regulation*
 - *Licensing Procedures Regulation*
 - *Litter Regulation*
 - *Pesticides Regulation*

The intent of the Act is to develop and maintain an environmental protection and management system in Manitoba which will ensure that the environment is protected and maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for this and future generations. The proposed Project is considered a development under the Act.

- *The Heritage Resources Act*

The Act provides for the conservation and protection of Manitoba's cultural heritage and addresses the central issues of affording better protection to heritage resources and greater public involvement. If heritage resources are disturbed by the Project, it will be subject to this Act.

- *The Noxious Weeds Act*

The Act lists noxious weeds and regulations for their control. This Act will apply to maintenance of the land on which the proposed Project is to be constructed.

- *The Pest Control Products Act*
 - *Pest Control Products Incident Reporting Regulations*
 - *Pest Control Products Regulations*

The Act is meant to protect human health and safety and the environment by regulating products used for the control of pests and applies to the ICB.

- *The Pesticides and Fertilizers Control Act*
 - *Pesticides and Fertilizers Licence Regulation*
 - *Prescribed Spraying Equipment and Controlled Products Regulation*

The Act requires retail pesticide dealers, commercial pesticide applicators, and commercial and off-farm manure applicators to be licensed and applies to the ICB which applies pesticides.

- *The Public Health Act*

The Act will help the province anticipate and respond to public health emergencies and creates a framework for provincial public health functions, such as health surveillance, disease and injury prevention, and population health assessments. The Act applies to the Project as the ICB has an agreement with the Province for application of larvicide outside of the City's limits to reduce the use of chemical pesticides and reduce reliance on adult mosquito control.

- *The Water Protection Act*

The Act was put into place to protect water in Manitoba, recognizing that an abundant supply of high quality water is essential to sustain all ecological processes, life-support systems and food production, and is paramount to the environmental, economic and social well-being. The Act applies to ICB operations with regard to buffers around surface water bodies.

- *The Workplace Safety and Health Act*

- *Workplace Safety and Health Regulation*

Manitoba's Workplace Safety and Health Act and regulations apply to all employers in Manitoba and protects the safety and health of workers in Manitoba.

1.4.3 Municipal By-Laws

The legal authority of the various insect control operations is under Section 143 (2) (d) of *The City of Winnipeg Charter Act*. The City of Winnipeg has a number of by-laws that govern land use, planning, zoning and approvals for lands under municipal control all of which are available from the City's website: <http://www.winnipeg.ca/ppd/CityPlanning/default.stm>.

By-laws that may apply to the Project include:

- Pesticide Management By-Law No. 99/2008. Regulates the use of pesticides in The City of Winnipeg. This applies to operation of the Project due to use of pesticides.
- Winnipeg Zoning By-Law No. 200/2006. Promotes the orderly use and development of land and the location of buildings and structures in the City of Winnipeg as defined in The City of Winnipeg Charter excepting lands covered by the Downtown Winnipeg

Zoning By-law No. 100/2004. This by-law will apply to rezoning of the project site which is currently zoned Rural Residential 5.

- Local Improvement District Procedures By-Law No. 6990/97. Establishes guidelines for the composition of a committee of council for a local improvement district and to establish procedures for giving notice of and conducting public hearings for proposed local improvement districts. This applies to public consultation aspects of the Project.
- The Winnipeg Building By-Law No. 4555/87. Applies to new and existing construction, including the design, construction, erection, placement, alteration, repair, renovation, demolition, relocation, removal, occupancy or change in occupancy of any building or structure or addition to a building or structure. This applies to the construction of the Project.

1.4.4 Federal Permitting

The proposed Project is subject to all applicable federal legislation, guidelines, codes and standards including:

- *Aeronautics Act*
- *Canadian Environmental Assessment Act, 2012*
- *Migratory Birds Convention Act, 1994*
- *Radio Communications Act*
- *Species at Risk Act*

Federal regulatory requirements are described in more detail in Section 4.3 of this report.

1.5 REGIONAL PLANNING CONTEXT

The Canadian Environmental Assessment Agency (the “Agency”) was contacted regarding the Project and inquiries were made as to whether a regional study under CEAA 2012, section 74, had been conducted. Currently there are no federal regional studies relevant to the proposed City of Winnipeg Insect Control Branch Relocation Project. Additionally, there are no known relevant provincial regional studies.

A number of planning studies have been undertaken by the City of Winnipeg Planning Department, as a high level of growth is expected over the next several years. The City of

Winnipeg is expected to grow by 200,000 persons and 78,000 jobs in the years 2006 to 2031. The City recognizes that growth and economic development will provide an opportunity to shape the transportation system and to improve the efficiency of the movement of people and goods by road. Growth will also require the City to encourage more sustainable forms of travel including walking, cycling and transit. This includes creating a network of BRT routes and quality transit corridors that can become the focal points for new development and redevelopment. As part of the planning process, it was determined that a BRT corridor through the Elmwood neighborhood would be beneficial to City residents. The corridor is planned to go through land currently occupied by the City's heliport and ICB headquarters at 3 Grey Street. The City's planning website, <http://www.winnipeg.ca/ppd/CityPlanning/default.stm> has additional information about ongoing and proposed projects.

2.0 PROJECT INFORMATION

2.1 PROJECT OVERVIEW

As part of a multi-year planning and development project, the City is planning to merge and relocate the two existing ICB facilities to a single location at the south end of the City adjacent to the SEWPCC and northeast of 2641 St. Mary's Road (Figure 1). The heliport and ICB headquarters for airborne mosquito larviciding operations operates from 3 Grey Street and must be relocated to accommodate future expansion of the City's BRT project. The ICB location at 1539 Waverley Street in the City's south end is currently used as the operations base for ICB street level operations such as insect fogging. The Project is not a component of a larger project as defined in the *Regulations Designating Physical Activities* (SOR/2012-147).

The existing City of Winnipeg Heliport is owned and operated by the Public Works Department, ICB under Transport Canada Certificate No. 5151-C504. The heliport serves spray equipped helicopters for insect control and Shock Trauma Air Rescue Society (STARS) Air Ambulance helicopters for both medevac and patient transfer flights. On occasion, Winnipeg Police Service helicopters, and others, may use the heliport with prior permission. The aircraft typically using the heliport is the Hiller 12E/12T, MBB BK-117 or similar aircraft with a maximum overall length of 43.9 ft (13.3m) ⁽³⁾.

2.2 PROVISIONS OF REGULATIONS DESIGNATING PHYSICAL ACTIVITIES

The proposed Project includes construction of a heliport (an aerodrome) within the City of Winnipeg. Therefore, s. 26(a) of the *Regulations Designating Physical Activities* (SOR/2012-147) pursuant to the CEAA 2012 applies:

- s. 26 The construction, operation, decommissioning and abandonment of a new
 - (a) aerodrome located within the built-up area of a city or town;

No other provisions of SOR/2012-147 apply.

2.3 PROJECT COMPONENTS AND ACTIVITIES

2.3.1 Physical Works Associated with the Designated Project

The proposed Project will be built on land owned by the City and will include construction of three single-storey buildings: an aircraft hangar; an operations building with attached cold storage; and a warehouse to store pesticide. A single driveway will be constructed along the southern side of the property. The access road will be approximately 7.6 m wide and 300 m long and will be maintained by the City of Winnipeg. All of the buildings will be constructed on concrete slab, likely on piles (foundation requirements to be confirmed during detailed design). They will be outfitted with emergency eyewash stations and fire suppression infrastructure. It is proposed that the development will be heated and cooled using geothermal energy. At this time, it is proposed that the development will have a paved parking area with approximately 314 parking stalls. A paved area designated for refueling diesel and gas vehicles and machinery will be provided. Above Ground Storage tanks for fuel will conform with the Canadian Council of Ministers of the Environment's "Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products" and will be protected by concrete filled bollards. The proposed development will be connected directly to the City's municipal water and wastewater systems. Open-trench excavation on City lands and along the St. Mary's Road right-of-way will be required to install sewer and water pipelines. The City of Winnipeg will be responsible for the care and control of City infrastructure. Conduit will be plowed into a trench on site and within the St. Mary's Road right-of-way to provide servicing access for telecommunications and hydro-electricity which is to be provided to the site by Manitoba Hydro. Manitoba Hydro will maintain hydro-electricity infrastructure such as transformers and distribution lines beyond the facility's footprint. The City will own and maintain infrastructure within the project footprint. Grass will be planted around the helipads and take-off areas to help reduce the potential for airborne contaminants (dust) from helicopter propwash. The entire compound will be surrounded by chain link fencing in order to prevent public access and to keep large mammals from entering the area. Access to the facility will be controlled by a retractable chain link gate on roller wheels and will be monitored by a security camera (Appendix A: Figure A1.0).

2.3.1.1 Aircraft Hangar and Heliport

The aircraft hangar will be approximately 7,500 sq ft and designed to store four helicopters. The preliminary design indicates that there will be four helipads to accommodate the aircraft (Figure 2). Refer to Appendix A: Figure A1.1 for additional details.

2.3.1.2 Operations Building

The operations building will be approximately 16,000 sq ft and include office and meeting space, three maintenance garage bays and washrooms, change rooms and shower facilities for ICB personnel. A wash bay will be included in the maintenance area and will have a slot drain with a sediment interceptor. Refer to Appendix A: Figures A2.0, A3.1 and A3.2 for additional details.

2.3.1.3 Warehouse Building

The storage warehouse will be approximately 7,500 sq ft with capacity to hold up to 168 pallets containing a variety of chemical and biological substances. The warehouse will be constructed from building materials and to standards and construction requirements conforming to National and Manitoba Building Codes. In addition, the construction of the warehouse will conform to the MSD Information Bulletin, "Recommendations for Pesticide Storage Facilities" (Appendix B). The design will include:

- A reinforced concrete floor, finished to render it impervious, or constructed of other impervious materials;
- No floor drains, but with retention curbing with a minimum height of 10 cm around the perimeter of the storage area; and
- No windows but the building will be ventilated to the outside according to the requirements and conditions, as may be required under the *Workplace Safety and Health Act and Regulations*.

Secondary containment in the warehouse will be of sufficient containment for retaining chemical spills or firewater retention as regulated by Agrichemical Warehousing Standards Association.

2.3.2 Operations and Maintenance Activities

The proposed Project will be operated and maintained in much the same way as at the two existing ICB facilities. Chemical and biological substances will be received and stored until they are needed for operations. Helicopters will be fueled, and spray equipment loaded with pesticides, while on site. Application of pesticides will occur in areas currently under the purview of the ICB, and will return to the heliport when operations are completed for refueling and reloading. Pesticide application activities are further discussed in Section 2.3.2.5.

The ICB has an agreement in place with the Province of Manitoba to execute a program that targets mosquito species known to be vectors of West Nile virus in Municipalities adjacent to the City. The program includes services including Mapping and Larval Sampling, Adult Mosquito Surveillance, Targeted Larviciding in the Capital Region, Targeted Adulticiding in the Capital Region (excluding City of Winnipeg) and in other Municipalities and Towns and Villages in Southern Manitoba. Public Notice for Pesticide Use advertisements are run in local newspapers each year indicating that the ICB will be larviciding in adjacent Municipalities.

2.3.2.1 Hazardous Materials

The operation at 3 Grey Street is considered a Hazardous Waste Generator under *The Hazardous Waste Regulation* (M.R. 195/2015) and operates under registration number: MBG13483. The existing facility also operates under a provincial Pesticide Use Permit which is reissued annually. The City has developed an employee handbook for Parks and Open Spaces employees and a Policy and Procedure manual for ICB workers. Handling of hazardous materials is done according to the Chemical and Biological Substances Protocol (Appendix C). The protocol states that chemical and biological substances shall be used, handled, stored and disposed of in a safe manner as to reduce the risk of harmful exposure. In addition to the protocol, the ICB also has in place a Safe Work Procedure for Chemical Transportation and Storage and a Safe Work Practice for Spill Response (Appendix C). Pesticides will be stored on pallets in their original labeled containers according to manufacturer's label storage requirements. Disposal of empty containers will be done according to the MSD Information Bulletin "Supplementary Pesticide Disposal & Empty Container Guidelines" (Appendix B).

General purpose cleaning and building maintenance chemicals currently in use at the two ICB locations are stored in manufacturer-supplied containers in a variety of sizes. The same chemicals will be used at the proposed development and stored in much the same manner. The design of the proposed warehouse will not have any floor drains and will otherwise be constructed and operated per the MSD Information Bulletin “Recommendations for Pesticide Storage Facilities,” described in Section 2.6.2.3 and in Appendix B.

2.3.2.2 Fuel and Chemical Storage

The proposed development will include four above ground CSA approved fuel tanks; one each for AvGas (maximum capacity: 4,500 L), Jet A (maximum capacity: 4,500 L), gasoline (maximum capacity: 10,000 L) and diesel (maximum capacity: 10,000 L). The total amount of fuel stored in the above-ground fuel tanks would be 29,000 L. The proposed fuel tank sizes are based on current requirements; however, merging the Grey Street and Waverley Street facilities may result in an increased need for gasoline and diesel fuel. Eight 40-pound propane tanks will be stored outside of the warehouse in a locked and approved cage.

Pesticides and hazardous materials are stored on pallets, in bins or drums, which are placed side by side. The largest container currently used is 6' x 6' x 4' high (L x W x H). The chemical and biological substances inventory for the Grey Street location has been provided as an example of materials that will be warehoused at the proposed development (Appendix D).

Other hazardous materials including those used for maintenance and cleaning are stored in original manufacturer containers. A list of the types and quantities of office and maintenance material (toner, ink, soap, *etc.*) for the existing ICB facilities is attached as Appendix E. Similar chemicals will be used during operations at the proposed development.

2.3.2.3 Aircraft Fueling Procedures

Western Aerial is responsible for the helicopter fuelling operations. At the existing heliport, when an aircraft requires fuel, an empty 200 L marked fuel drum is brought from the drum storage area beside the operations building to the above ground storage tank area and filled with the appropriate fuel (AvGas or Jet Fuel). Full drums are rolled to the helipad when needed and an

electric fuel pump/filter is used for the AvGas and a gasoline powered fuel pump/filter is used for Jet Fuel. When an aircraft is ready for fueling, the aircraft's fuel tank is opened, nozzle from the pump is then inserted, and the fuel pump/filter started. Empty drums are resealed and rolled back to the storage area. During re-fueling procedures, ICB staff wear appropriate personal protective equipment as described in the Safe Work Procedure for Chemical Transportation and Storage. Spill control kits are available for tasks involving hazardous materials and fuel. In addition the ICB has a Job Safety Analysis (Appendix C: JSA No. 0004) regarding Flammable & Combustible Liquid Spill Response and a Spill Response Safe Work Practice. The aforementioned Safe Work Practice addresses environmental releases, cleanup and reporting.

2.3.2.4 Aircraft Pesticide Loading Procedures

At the existing heliport, a forklift brings pallets of granular pesticide from the warehouse, and places them near the helipads. Four to eight bags of pesticide are then transferred by hand from the pallets to each side of the helipad for loading. Bags are opened and the contents are poured into the hopper of the pesticide applicator that is attached to the helicopter. After the hoppers have been filled, they are closed and secured. Emptied bags are removed from the helipad area to avoid movement from aircraft prop wash.

2.3.2.5 Pesticide Application Activities

Pesticide application activities are carried out from mid-April through September, from sun-up to sun-down. During operations, helicopters can be running on the pads as early as 4:30 AM having already been fueled and loaded, waiting for good light conditions in order to take-off and begin pesticide application. Flight frequency varies with environmental conditions and may be nearly constant following rainfall activity. The number of days flown and the flying hours for City of Winnipeg helicopters over the past 10 years is quite variable as shown in Table 1.

TABLE 1
INSECT CONTROL BRANCH HELICOPTER FLYING HOURS

| YEAR | HOURS FLOWN | NUMBER OF DAYS FLYING |
|------------------------|--------------------|------------------------------|
| 2008 | 519.4 | 58 |
| 2009 | 669.2 | 47 |
| 2010 | 562.9 | 55 |
| 2011 | 214.15 | 22 |
| 2012 | 238.3 | 25 |
| 2013 | 579.9 | 56 |
| 2014 | 677.7 | 55 |
| 2015 | 693.3 | 70 |
| 2016 | 1089.4 | 86 |
| 2017 | 393.3 | 42 |
| 10 year Average | 563.8 | 51.6 |

2.3.2.6 Safety Equipment

Various types of personal protective equipment (PPE) are required to be worn by employees depending on the department where they work, but the PPE typically includes safety footwear, safety eyewear, hi-viz safety vest and hearing protection (when necessary). Those performing maintenance operations wear safety equipment required for the task at hand.

2.3.2.7 Fire Alarm System and Emergency Response Plan

Fire and emergency response at the proposed development will be managed in much the same way as the existing Grey Street facility. The existing fire alarm system at 3 Grey Street is a Simplex 4001 and is single stage. It is monitored by The City of Winnipeg, Central Control Office. The Heliport Emergency Response Plan (Appendix F) outlines the responsibilities and functions of the various municipal departments and external agencies such as the Winnipeg Fire Paramedic Service and the Winnipeg Police Service in the event of an emergency at or near the heliport.

All heliport staff are trained in the use of A-B-C dry chemical type fire extinguishers and a fire extinguisher with a UL rating of 10-A: 120-B is available for deployment by attending heliport staff, Winnipeg Fire Paramedic Service or contracted users in the event of an emergency. Fire

extinguishers are inspected monthly and replaced according to the manufacturer's recommendations. The Fire Safety Plan for 3 Grey Street and the City of Winnipeg Fire Drill Procedure For Civic Workplaces is attached as Appendix G. These will be updated to suit the development prior to operation.

2.3.3 Anticipated Size and Capacity of the Designated Project

The helicopter hangar will be approximately 7,500 sq ft and designed to store four helicopters. The heliport will primarily be used during the pesticide application period from mid-April through September, between sunrise and sunset. Flight frequency varies with environmental conditions and data from previous years is presented in Table 1. The operations building will be approximately 16,000 sq ft and the storage warehouse will be approximately 7,500 sq ft with capacity to hold up to 168 pallets of chemicals and biological substances.

2.3.4 Project Components that are Expansions

The Project will merge two existing facilities into one location and is not considered to be an expansion.

2.3.5 Activities Incidental to the Designated Project

Planned activities that are incidental to the construction of the Project include:

- Construction of a driveway and parking areas;
- An overland drainage system using sheet drainage, ditching and culverts;
- Sanitary sewer tying-in to City of Winnipeg mains;
- Potable and fire water supply systems;
- Geothermal heating / cooling systems;
- Airside concrete aprons / taxiways; and
- Electric and telecommunications service connections.

These elements of work will be performed by consultants and contractors engaged by the City of Winnipeg. The City will be the owner by contract, and will have the ability to direct or

influence all elements of design and construction. The activity benefits the proponent solely at this time. The activities will conform to relevant federal/provincial regulators, such as Transport Canada and Manitoba Sustainable Development.

During operations, STARS, as a contracted user, is responsible for snow clearing, as required, subject to the conditions of their user contract with the City of Winnipeg. The primary intent of the City of Winnipeg Heliport is to provide a safe heliport for all approved users. According to the Heliport Operations Manual, it may only be used by contracted operators or, with Prior Permission Required, Winnipeg Police Service, Transport Canada, or other government/military aircraft. It is also available to all helicopters should an in-flight emergency require its use ⁽³⁾.

2.4 EMISSIONS, DISCHARGES AND WASTES

2.4.1 Atmospheric Contaminant Emissions

During construction, atmospheric emissions, including greenhouse gases, will predominantly be the result of combustion emissions from the construction vehicles, equipment and machinery. Combustion emissions will include sulphur dioxide, nitrous oxides, carbon dioxide, and particulate matter. Localized atmospheric emissions may occur, including airborne dust from construction activities.

During operation, localized atmospheric emissions can be expected due to similar combustion emissions from vehicles and aircraft. The amount of combustion emissions due to road traffic will increase a small amount in the local area due to increased traffic accessing the Project; however, there will be no increase in emissions beyond what is currently produced by the existing facility. Vehicle and aircraft emissions are unlikely to exceed Manitoba's air quality guidelines.

During operations there will be some localized dust generated during helicopter take-off and landing. The areas around the helipad will be planted with grass and the helipads themselves will be paved in order to minimize the disturbance of dust and debris.

Carbon Dioxide equivalency (CO₂e) produced during construction has been estimated based on a similar construction project. Using the United States Environmental Protection Agency Greenhouse Gas Equivalencies Calculator ⁽⁵⁾, it was estimated that the pre-construction and construction activities would consume approximately 168,000 litres of fuel, resulting in approximately 374,405 kg of greenhouse gas emissions. Annual CO₂e produced from Project operations was estimated based on the vehicle and helicopter fuel consumption from previous years. Total consumption in 2016 and 2017 was averaged to get an estimate for the purpose of this Project Description. The total estimated CO₂e produced by Project operations is estimated to be 727,295 kg/year (Table 2).

TABLE 2
FUEL USAGE AND ESTIMATED CO₂E

| Fuel Type | 2016 Volume | 2017 Volume | Average Volume | CO ₂ e |
|---------------|-------------|-------------|----------------|-------------------|
| Unleaded | 151,248.9 L | 159,667.1 L | 155,458.0 L | 364,968 kg |
| Clear Diesel | 54,055.8 L | 37,880.9 L | 45,968.3 L | 107,920 kg |
| Purple Diesel | 709.3 L | 676.0 L | 692.6 L | 1,626 kg |
| Jet Fuel | 23,708.0 L | 6,132.0 L | 14,920.0 L | 35,028 kg |
| Av Gas | 61,610.0 L | 123,896.0 L | 92,753.0 L | 217,756 kg |
| TOTAL | 291,332.0 L | 328,251.9 L | 309,791.9 L | 727,295 kg |

Increased levels of sulphur dioxide, nitrous oxides, carbon dioxide, and particulate matter and other pollutants from vehicle emissions may occur from transportation of materials to and from the site, from on-site construction equipment and helicopter operation. Increased volatile organic carbon (VOC) levels may occur from fuels and other hazardous substances used during construction activities. Annual fuel consumption is variable and dependent on weather conditions. A high standard of maintenance for vehicles and aircraft and limiting unnecessary long-term idling will help minimize greenhouse gases and vehicle/aircraft emissions.

2.4.2 Liquid Discharges

There are no processing streams that would result in liquid discharges, however, accidental releases and unplanned discharges of liquids may occur associated with activities involving the

operation of equipment, motor vehicles, and aircraft. Aircraft are refueled on the helipads and refueling procedures are described in Section 2.3.2.3.

Re-fueling areas will be designated during construction activities and will be situated a minimum of 100 m from water and contained to prevent any run-off. Contractors will comply with Manitoba Regulation 188/2001 respecting “Storage and Handling of Petroleum Products and Allied Products” and transportation of petroleum will be in accordance with the *Dangerous Goods Handling and Transportation Act*. In the event equipment must be refueled outside of a designated area, the fuel will be transported in approved containers and absorbent pads/ground sheets will be used. All employees involved in the handling and storage of fuels will have Workplace Hazardous Materials Information System and spill response training. All petroleum product storage sites and mobile transportation units will be equipped with appropriate fire suppression products.

A spill control plan including typical cleanup procedures, communication requirements and subsequent reporting will be established prior to construction activities. This spill response plan will require spills to be immediately contained and cleaned up so there is no potential run-off of contaminants. The spill response plan will be developed in accordance with applicable contract specifications, environmental legislation, permits and authorizations. Information to be available on-site at all times includes an updated list of key contacts and telephone numbers for reporting spills and problems and WHMIS documents for all hazardous materials at the work area.

In the event of an accidental leak or spill of a hazardous substance, the contractor will abide by the spill control plan. Any documentation will be maintained in the work area at all times during construction. All spills or accidental releases of petroleum products or other hazardous substances to a watercourse, to federal lands, and/or as specified by the Manitoba Regulation 439/87 respecting Environmental Accident Reporting shall be immediately reported to Manitoba Sustainable Development and the Contract Administrator. All spills or releases of petroleum and other products shall be contained, treated and disposed of in accordance with the Manitoba Regulation 188/2001 respecting the Storage and Handling of Petroleum Products and Allied Products Regulation or any future amendment thereof and any other applicable requirement.

In the event of a spill on the ground the entire affected area will be cleaned up and all soil with contaminant levels exceeding the applicable criteria will be appropriately disposed of at a

licenced soil recycling facility. If affected soil is to be stored on site for any time a designated storage area will be identified and prepared to prevent further effects to other soil in the area. Soil will be remediated to Canadian Council of Ministers of the Environment's guidelines. Spill sites may also require an environmental site assessment and/or a remedial action plan.

The chemical and biological substances warehouse will be appropriately designed to prevent the accidental discharge of chemicals. The entire warehouse building perimeter and the shipping/handling areas will integrate a 6" concrete curb complete with Chemical Resistant Epoxy. Compacted clay dykes have not been integrated at this time but could be in the future with a source of clay identified at that time. The building and containment facilities of the pesticide warehouse will conform to the National Fire Protection Association (NFPA) codes, particularly in reference to NFPA 30 (Flammable and Combustible Liquids Code) and NFPA 434 (Code for the Storage of Pesticides). The following items from the codes will be implemented in the final design of the facility:

- Floors shall be constructed and maintained to contain and control spillage and fire-fighting water.
- Containment or drainage shall be provided to prevent the flow of pesticides during emergency conditions into adjoining building areas, property or critical natural resources.
- Pesticide spills and fire-fighting water shall be either contained inside the facility or directed by a drainage system to outside secondary containment. The outside secondary containment would consist of dykes constructed either from compacted clay or lined with a synthetic liner.
- If pesticides are stored in a non-sprinklered building containment will be provided for the maximum volume of stored liquids and twenty minutes of fire-fighting water.

Loading and unloading facilities shall have secondary containment. The secondary containment shall have a liquid tight floor (Chemical Resistant Epoxy) and shall be sloped or curbed to prevent overflow. This containment shall be permitted whether it is to be connected to the drainage system and/or if it is to be contained at the unloading area.

Helicopter fueling and pesticide loading areas will include reverse grading as a containment measure to prevent movement of fuels and other contaminants from migrating toward drainage ditches. A catch basin will be put in place to collect contaminants from spills in these areas.

In the event of a fire, firewater will be retained in the secondary containment area and tested to assess potential disposal options. MSD will be contacted and approval will be obtained for the proposed disposal option prior to implementation. A plan for containing, handling, monitoring, storing, treating and disposing of contaminated water in the event of a response to a fire, leak or discharge has not been developed at the current time but will be completed prior to operation.

Sewage from the proposed development will be handled by the City's municipal wastewater system. Connections to that system are described in Section 2.3.1.

2.4.3 Types of Waste and Disposal Plans

Non-hazardous domestic solid waste will be collected in appropriate on-site containment for later transport to the City of Winnipeg Brady landfill. Waste petroleum products (e.g., lubricants, oils, greases) from construction vehicles and equipment will be collected and stored in designated areas and containers until they can be removed from site for recycling or disposal through a licensed waste disposal/treatment company.

Solid, liquid and hazardous wastes from the proposed Project will be collected, stored, transported, disposed of and/or treated in accordance with *The Environment Act (Waste Disposal Regulation)*, *The Dangerous Goods Handling and Transportation Act (Dangerous Goods Handling and Transportation Regulation, Environmental Accident Reporting Regulation, and Storage and Handling of Petroleum Products and Allied Products Regulations)* and *The Transportation of Dangerous Goods Act*. Impacted soil from hydrocarbon spills will be assessed and any soil determined to be contaminated will be managed on-site or removed to an approved treatment site.

2.5 PROJECT PHASES AND SCHEDULING

2.5.1 Anticipated Scheduling

Studies are underway to determine the feasibility of moving the heliport and ICB operations and to complete a business case that will be used to refer the proposed Project to the City's capital project review process. The Project could be reviewed in 2018 for funding consideration relating

to the final design in 2019. Pending funding, it would take a year to complete design drawings, specifications, Class 1 cost estimate, and bid document preparation. If approvals are in place and funding is approved, construction would likely begin sometime in 2020. The construction phase would require an estimated period of 18 months. As the Project is linked to the City's BRT project, development of the Project may be affected by the schedule of the BRT project. At this point, final design and construction funding have not been identified.

2.5.2 Main Activities in Each Phase of the Designated Project

The proposed Project will be carried out in four main stages as follows:

- Planning and Design (estimated to be completed in the third quarter of 2019);
- Pre-construction (estimated to begin in the first quarter of 2020);
- Construction (estimated to begin in the third quarter of 2020); and
- Operation and Maintenance (estimated to begin in the second quarter of 2022).

There are no plans to decommission or abandon the proposed Project as it will provide long-term benefit to residents of the City of Winnipeg and surrounding areas. Should the facility be decommissioned, the site would be characterized and decontaminated as needed. Regular maintenance activities at the facility will include grass cutting in summer and snow removal in the winter months. A maintenance plan for the new facility has not been developed at the current time but will be completed prior to operation. Decommissioning of the existing facilities is outside of the scope of the proposed Project.

2.5.3 Planning and Design

Planning and design for the proposed Project involves determining if the selected site is suitable for the design purpose. In fall 2017, KGS Group conducted geotechnical investigations, an environmental assessment, flood protection assessment, Phase I Environmental Site Assessment, and hydrogeological testing to assess feasibility of the proposed site. Preliminary architectural design and drawings have been drafted and preliminary municipal servicing options are being considered.

2.5.4 Pre-Construction

During the pre-construction stage, detailed design will be completed and an Environmental Protection Plan will be finalized. Equipment, machinery, vehicles, construction materials and supplies including fuel, if necessary, will be transported into the Project site.

2.5.5 Construction

A minimal amount of clearing will be required along St Mary's Road for construction of the Project. Clearing will consist of the removal and disposal of trees and shrubs to the City of Winnipeg Brady Road Landfill. Clearing procedures will abide by the federal requirements for avoiding disturbance to migratory birds. The proponent will adhere to provisions of *The Migratory Birds Convention Act, 1994* (MBCA) specifically relating to Section 6 of the MBCA which states that no person shall disturb, destroy or take a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird. Measures required to mitigate the effects of construction of the proposed Project on migratory birds will be implemented as required and the proponent will perform due diligence to reduce disturbance.

A temporary laydown area will be established at the site by the construction contractor to store construction vehicles, equipment and machinery, construction materials and supplies. This area may be fenced and site security will be provided, as required. Petroleum products will be stored in double-walled tanks in accordance with the National Fire Code of Canada and *The Dangerous Goods Handling and Transportation Act* (Manitoba), *Storage and Handling of Petroleum Products and Allied Products Regulation*. Sanitary and solid waste will be collected and transported to licensed or approved waste disposal and treatment facilities. Initial phases of construction will include contouring and levelling to provide drainage control and erosion protection, excavation for buildings, excavating and/or directional drilling for utilities, placing fill, pouring concrete, grading and re-vegetation as needed.

2.5.6 Operation and Maintenance

Operation and maintenance activities for the completed heliport will include those activities outlined above in Section 2.3.2 as well as grass cutting and snow removal. Should it be

required, Section 28 of the MBCA addresses permits that may be issued by the Minister of the Environment to remove migratory birds at the heliport that are considered to be a danger to aircraft.

3.0 PROJECT LOCATION

3.1 LOCATION DESCRIPTION

3.1.1 Coordinates

Coordinates for the proposed Project are as follows:

Latitude: 49°47'18.42"N
 Longitude: 97° 6'57.90"W

3.1.2 Site Maps/Plans

The Project site is located on the southern border of the City of Winnipeg which resides on Treaty 1 First Nations territory and the homeland of the Métis people. The location of the proposed Project is shown on Figure 1 and Figure 2. Site layout and architectural drawings are included in Appendix A. The Project will be developed on private land owned by the City of Winnipeg and does not directly affect any First Nation Reserve lands. The RAA is defined as 12 km beyond the boundaries of the City of Winnipeg so that it corresponds to those areas subject to pesticide treatment by the ICB during existing operations. No federal lands will be affected by Project construction or operation. First Nations Lands within the RAA are listed in Table 3 and additional lands held by those First Nations that are located outside of the RAA are listed in Table 4. Aside from holdings of land by First Nations, the Forks National Historic Site is approximately 11 km from the proposed Project site.

TABLE 3
FIRST NATIONS LANDS WITHIN THE REGIONAL ASSESSMENT AREA

| Name of Reserve/Settlement/Village | Community Name | Distance from Project Site (km) | Province |
|---|--------------------------------------|---------------------------------|----------|
| Roseau River Anishinabe 2b | Roseau River Anishinabe First Nation | 26.9 | MB |
| Na-Sha-Ke-Penais | Brokenhead Ojibway Nation | 20.3 | MB |
| Swan Lake 8a | Swan Lake First Nation | 20.9 | MB |
| Long Plain Madison Indian Reserve No. 1 | Long Plain First Nation | 13.0 | MB |

TABLE 4
FIRST NATIONS LANDS BEYOND THE REGIONAL ASSESSMENT AREA

| Name of Reserve/ Settlement/ Village | Community Name | Distance from Project Site (km) | Province |
|--------------------------------------|--------------------------------------|---------------------------------|----------|
| Roseau Rapids 2a | Roseau River Anishinabe First Nation | 65.3 | MB |
| Roseau River 2 | Roseau River Anishinabe First Nation | 69.9 | MB |
| Long Plain 6 | Long Plain First Nation | 98.6 | MB |
| Brokenhead 4 | Brokenhead Ojibway Nation | 72.0 | MB |
| Swan Lake 7 | Swan Lake First Nation | 135.3 | MB |
| Swan Lake 7a | Swan Lake First Nation | 158.5 | MB |
| Swan Lake Indian Reserve No. 29 | Swan Lake First Nation | 162.4 | ON |

The community of St. Norbert is approximately 3 km southwest of the Project site. A variety of residential, commercial and industrial facilities are located within the Local Assessment Area (LAA) which is defined as the area within 4 km of the proposed development. The LAA was determined based upon Transport Canada Regulations Amending the Canadian Aviation Regulations (Aerodrome Work Consultations).

The Heritage Resources Registrar at the Manitoba department of Culture, Heritage, and Tourism, Historic Resources Branch examined Branch records and indicated that there are no known archaeological or heritage resources at the Project site (Appendix H). In the event of a discovery of an archaeological/heritage resource during construction, activity at that section of the project will be temporarily postponed and the area cordoned off until the item encountered can be examined by an appropriately trained individual. In the event that an archaeological/heritage resource investigation is required, a heritage permit will be acquired from the Heritage Resources Branch prior to conducting the investigations.

3.1.3 Map of Regional Assessment Area

The RAA for the proposed Project extends 12 km beyond the boundary limits of the City of Winnipeg, Manitoba (Figure 1).

3.1.4 Project Area Photographs

Photographs of areas within the Project site include:

- A view from the middle of the Project site looking North (Appendix I: Photo 1);
- A view from the middle of the Project site looking East (Appendix I: Photo 2);
- A view from the middle of the Project site looking South (Appendix I: Photo 3);
- A view from the middle of the Project site looking West (Appendix I: Photo 4);
- Representative photos showing the stand of trees and grasses along St Mary's Road are shown in Photo 5 and Photo 6.

3.1.5 Proximity of Designated Project

A review of aerial photographs indicated that the proposed Project site and surrounding lands to the north, east, and southeast have been used for agricultural purposes since at least 1950. The proposed Project site is currently owned by the City of Winnipeg. The nearest three residential properties are approximately 200 m, 300 m, and 362 m from the proposed site. The property is bordered by agricultural land to the north, east, and southeast, residential properties to the west, and Ron Paul Garden Centre to the south.

- North – A vacant, agricultural and forested field. The SEPWCC is located approximately 1.0 km to the northeast.
- East – A vacant, agricultural field.
- South – Ron Paul Garden Centre at 2641 St Mary's Road.
- West – Forest and a residential property at 2596 St Mary's Road.

Federal sites within the RAA and the distance from the project site include the Forks National Historic Site (11 km north), the former Kapyong Barracks (10 km northwest) and the Royal Canadian Mint (8 km northeast). The Project site is approximately 140 km from the Ontario border, 80 km from the border of the United States of America and 310 km from the Saskatchewan border. The proximity of the Project to nearby villages, towns and cities is provided in Table 5.

TABLE 5
PROXIMITY OF PROJECT TO VILLAGES AND TOWNS

| Name of Community | Distance from Project Site (km) |
|--------------------------|--|
| Anola | 36.0 |
| Birds Hill | 22.3 |
| Blackdale | 30.7 |
| Blumenort | 36.6 |
| Brunkild | 39.6 |
| Cooks Creek | 35.7 |
| Dacotah | 39.0 |
| Domain | 24.8 |
| Dufresne | 29.1 |
| Dugald | 22.7 |
| Garson | 43.7 |
| Glenlea | 17.1 |
| Gonor | 34.0 |
| Grande Pointe | 5.0 |
| Greenland | 32.6 |
| Grosse Isle | 38.6 |
| Hazelridge | 34.8 |
| Headingley | 23.2 |
| Ile des Chênes | 12.9 |
| La Salle | 15.1 |
| Landmark | 25.1 |
| Lido Plage | 30.0 |
| Linden | 22.2 |
| Lockport | 35.1 |
| Lorette | 18.1 |
| Meadows | 43.6 |
| Middlechurch | 21.7 |
| Mitchell | 38.2 |
| Narol | 31.7 |
| New Bothwell | 27.4 |
| Niverville | 20.9 |
| Oak Bluff | 15.0 |
| Oakbank | 26.3 |
| Osborne | 33.0 |
| Parkdale | 28.6 |
| Randolph | 33.9 |
| Rivercrest | 24.4 |

| Name of Community | Distance from Project Site (km) |
|--------------------------|--|
| Rockwood | 37.4 |
| Rosewood | 33.0 |
| Sanford | 26.5 |
| Springstein | 27.4 |
| St. Adolphe | 12.6 |
| St. Andrews | 33.0 |
| St. François Xavier | 33.3 |
| St. Raymond | 42.5 |
| Starbuck | 36.3 |
| Ste. Agathe | 25.3 |
| Ste. Anne | 36.3 |
| Stony Mountain | 34.2 |
| Tourond | 28.6 |
| Tyndall | 46.7 |

Reserve land currently held by Indigenous peoples within the RAA are identified on Figure 1. The proximity of the Project site to First Nations lands is described in Table 3 and Table 4. The dataset used to determine the proximity of the Project site to First Nations lands comes from the Government of Canada, Open Government, Aboriginal Lands of Canada Legislative Boundaries website and geographic information system dataset ⁽⁶⁾. The MMF indicated that the Project site is within lands considered to be the traditional homeland of the Métis people. It is unknown if there are other lands used for traditional purposes in the RAA. There are no anticipated off-site effects from the Project that would impact lands or resources currently used for traditional purposes.

3.2 LAND AND WATER USE

The proposed Project will be constructed on City-owned land. It will be owned by the City of Winnipeg, and will be operated in the same manner as at the existing locations. The Project will have no effects on local surface water resources as previously described in Section 2.4.2. Groundwater may be used for geothermal heating and cooling, however, the system would be an open loop type and would not reduce the availability of groundwater as a resource.

3.2.1 Zoning designations

The land where the proposed Project would be developed is zoned Rural Residential 5. The City will apply to the Zoning and Permits Branch of the City's Planning, Property and Development Department to have the project site rezoned appropriately prior to construction. Within the RAA, there are designated federal and provincial lands including The Forks National Historic Site, Duff Roblin Provincial Park, Beaudry Provincial Park, Hyland Provincial Park, Memorial Provincial Park, River Road Provincial Park, Trappist Monastery Provincial Park and Upper Fort Garry Heritage Provincial Park (Figure 1). Other areas such as Ecological Reserves, Provincial Forests and Park Reserves and Wildlife Management Areas are not found within the RAA.

3.2.2 Legal Description

The registered owner of the property proposed for construction of the Project is the City of Winnipeg, under Title Number 1604659 (Appendix J). Land title documents indicate that the City has been in possession of the property since November 3, 1998. The subject property is located on SEWPCC lands, which are legally described as follows:

- Certificate of Title No. 1604659:
Parcels A and B Plan 10523 WLTO
Exc Out of Said Parcel A Firstly: Public Road Plan 32896 WLTO and
Secondly: Parcel Plan 36488 WLTO
In RL 151 to 155 and 157 to 159 Parish of St Norbert

3.2.3 Land and Resource Use

The proposed Project site is privately owned land. The owner of mineral rights beneath the property is not explicitly noted on the Status of Title and therefore is assumed to be The City of Winnipeg, as the land owner. The City is considering using geothermal energy to heat and cool the proposed development. As such, KGS Group was retained by The City of Winnipeg to conduct a well drilling and aquifer testing program to evaluate the feasibility of an open loop geothermal system for the buildings at the proposed development. An aquifer testing program was conducted and two 5 inch (125 mm) diameter wells were drilled to a full depth of 120 ft

(36.6 m) with approximately 110 ft. (33.5 m) of PVC well casing installed. Pump testing demonstrated good hydrogeological conditions for an open loop geothermal system with both wells being virtually identical in capacity with 3 ft (0.9 m) of drawdown at a pumping rate of 125 to 128 US gpm (7.9 to 8.0 L/s). With these high well capacities, there is flexibility in the pumping and recharge configuration and it appears that open loop geothermal is a feasible option and may be incorporated into the final Project design.

Annual water consumption is not expected to increase as a result of the facility relocation. During operations, the ICB obtains potable water from the City of Winnipeg. An average Daily Water Demand of 22,500 L/day was calculated for the peak operating window (summer), assuming 300 employees and design flow of 75 L/day per employee (typical design flow for industrial buildings with showers). An average Daily Water Demand of 2,250 L/day was calculated for the reduced operating window (winter), assuming 30 employees and design flow of 75 L/day per employee ⁽⁷⁾. Estimated water usage by ICB insecticide application operations in 2016 was 618,480 L and in 2017 was 367,500 L which averages to roughly 500,000 L per year. This water is predominantly used off-site to mix with concentrated insecticide and is obtained from various water hydrants throughout the City. When applying pesticide, the ICB uses buffers around waterbodies. The size of the buffer is dependent on the product being applied. Some products require no buffer or a very small one whereas some require 90 m or more.

3.2.4 Land and Resources Used for Traditional Purposes

Within the City of Winnipeg, there are four parcels of land identified as belonging to First Nations communities (Figure 1) and several other communities within 100 km of Winnipeg. It is unknown if there are lands used for traditional purposes in the RAA. There are no anticipated off-site effects from the Project that would impact lands or resources currently used for traditional purposes. The site where the Project will be developed is private land owned by the City of Winnipeg and currently used for agriculture. The Project site will be fenced (Figure 2) and would not allow for the practice of traditional activities by Indigenous peoples. When applying pesticide, the ICB uses buffers around waterbodies and will therefore not affect surface water or fishing rights.

4.0 GOVERNMENT INVOLVEMENT

4.1 FINANCIAL SUPPORT

The cost for construction and operation of the proposed Project will be borne by the City of Winnipeg. There is no proposed or anticipated federal financial support for the Project at this time.

4.2 FEDERAL LAND

The Forks National Historic Site is approximately 11 km from the proposed Project site. The distance from the Project site to First Nations lands is described in Table 3. No federal land will be used for the purpose of carrying out the Project, including no granting of interest in federal land through easement or transfer of ownership.

4.3 FEDERAL PERMITS, LICENSES AND AUTHORIZATIONS

Potential federal, provincial and municipal regulatory requirements were identified in Section 1.4. Operation of the heliport is governed by the *Aeronautics Act* and approvals from Transport Canada will be required as the City of Winnipeg Heliport is operated under Transport Canada Certificate No. 5151-C504 in compliance with the *Canadian Aviation Regulations*, CAR 305 and CAR 325⁽³⁾. A Land Use application will need to be filed with NAV Canada for the proposed Project. Operation of radio communication equipment will be regulated by the *Radio Communication Act*. Facets of the *MBCA* and the *Species at Risk Act* (SARA) that may apply to the Project are described below.

4.3.1 *Migratory Birds Convention Act, 1994*

The proponent will adhere to provisions of *MBCA*. Measures required to mitigate the effects of the proposed Project on migratory birds will be implemented, as required under the *MBCA*, and the proponent will perform due diligence to reduce disturbance.

4.3.2 *Species at Risk Act*

At the Project site, several species have been identified which are protected under SARA. Those species are described in Section 5.2. SARA species may be affected during construction and operations activities. Preventing bird collisions with aircraft may require that the nests of some protected species be moved in accordance the SARA regulations and guidelines. A permit may be required under the SARA.

5.0 ENVIRONMENTAL EFFECTS

5.1 BIOPHYSICAL SETTING AND EFFECTS

Environmental effects were identified from interactions between Project activities and environmental components. Mitigation measures were identified for environmental effects determined to be adverse. During construction, and operation and maintenance of the proposed Project best management practices will be implemented.

5.1.1 Climate and Air Quality

The proposed site is located within the Lake Manitoba Plain Ecoregion within the Prairies Ecozone ⁽⁸⁾. The mean monthly air temperature in Winnipeg ranges from approximately 19.7°C in July to -16.4°C in January. The average annual precipitation is approximately 521 mm, with 419 mm falling as rain, primarily in the months of June, July and August ⁽⁹⁾. No new air quality data have been collected for this Project, however, the province of Manitoba reported greenhouse gas emissions in 2016 of 1,822 kt of CO₂e ⁽¹⁰⁾. The most recent Air Quality Data for the City of Winnipeg (2013) was obtained from the Air Quality Working Group of Manitoba Sustainable Development (Appendix H) and is presented in Table 6. None of the air quality parameters in the samples were above the Maximum Desirable Level.

TABLE 6
MANITOBA AMBIENT AIR QUALITY DATA (2013)
STATION No. 9119

| Contaminant (Units) | Station Location | Annual Mean | Maximum Data Values | | Samples Above M.D.L. | |
|--|---------------------------|-------------|---------------------|--------------------|----------------------|----------------|
| | | | 1-HR | 24-HR | 1-HR | 24-HR |
| CO - Carbon Monoxide (ppm) | 65 Ellen Street, Winnipeg | 0.24 | 1.6 | 0.59 ^B | 0 | 0 ^B |
| NO ₂ - Nitrogen Dioxide (ppb) | 65 Ellen Street, Winnipeg | 7.79 | 62.7 | 34.17 ^A | -- | -- |
| NO - Nitric Oxide (ppb) | 65 Ellen Street, Winnipeg | 4.75 | 183.2 | 36.30 ^A | -- | -- |
| NO _x - Nitrogen Oxides (ppb) | 65 Ellen Street, Winnipeg | 12.47 | 241.6 | 65.15 ^A | -- | -- |

| Contaminant (Units) | Station Location | Annual Mean | Maximum Data Values | | Samples Above M.D.L. | |
|---|---------------------------|-------------|---------------------|------------------|----------------------|----------------|
| | | | 1-HR | 24-HR | 1-HR | 24-HR |
| SO ₂ - Sulphur Dioxide (ppb ^c) | 65 Ellen Street, Winnipeg | 0 | 10 | 2.0 ^A | 0 | 0 ^A |

Notes:

- No guideline or objective
- M.D.L. Maximum Desirable Level
- A - Using 24-hour moving average
- B - Averaged over 8 hours
- C - SO₂ guidelines (ppm): MDL: 1hr-0.170, 24hr-0.060;

5.1.1.1 Effects on Climate and Air Quality

Construction activities such as placing, grading and compacting soil and gravel and the use of construction equipment may result in temporary increases in fugitive dust levels and greenhouse gases in the local area during construction. The parking area will be paved as will the helipads and there will be no change in the facility operation therefore there will be no change in operational effects within the RAA. Construction effects will be short term, isolated to the Project site and unlikely to exceed Manitoba's air quality guidelines. The estimated CO₂e that will be produced during construction of the Project was estimated (Section 2.4.1) to be 374,405 kg or 51.4% of the 727,295 kg of greenhouse gas emissions annually produced by operation of the Project. Annual operation of the Project amounts to less than 0.01% of the 1,822 kt of greenhouse gas emissions produced annually in Manitoba. The potential adverse effects on climate and air quality from greenhouse gas emissions during construction and operation were assessed to be negligible. Effects during construction may be mitigated by using an approved dust suppressant such as water, limiting and covering stockpiled materials, controlling construction vehicle speeds, covering loads being hauled to and from the site, limiting construction activities during high wind events, and re-establishing vegetation on disturbed areas. Mitigation measures to control increased greenhouse gases include requiring a high standard of maintenance for vehicles and aircraft and limiting unnecessary long-term idling.

Increased levels of sulphur dioxide, nitrous oxides, carbon dioxide, and particulate matter and other pollutants from vehicle emissions may occur from transportation of materials to and from the site, from on-site construction equipment and helicopter operation. Increased volatile organic carbon (VOC) levels may occur from fuels and other hazardous substances used during

construction activities. Project vehicles will use low sulphur fuels and it is unlikely that Manitoba's air quality guidelines would be exceeded during any of the work associated with the proposed project. The potential adverse effects on air quality in the local area from vehicle emissions were assessed to be minor. Mitigation measures include requiring a high standard of maintenance for equipment and vehicles, limiting unnecessary idling, use of appropriate fuel dispensing equipment and protection for spills and releases.

5.1.2 Noise

Existing noise levels in the Project area and areas immediately surrounding the Project area are typical of commercial, agricultural and residential activities. Sources of noise identified for the Project area include:

- Vehicle traffic associated with the Trans-Canada Highway;
- Commercial traffic and operations associated with Ron Paul Nursery;
- Agricultural equipment use and practices from fields neighboring the Project area; and
- Human activities in urban and surrounding rural areas.

5.1.2.1 Effects from Noise

There will be a temporary increase in noise and vibrations during construction associated with truck traffic and use of heavy machinery. As the development is an ongoing operation, it will operate in a manner consistent with the existing facility. Noise will be consistent with light truck traffic and helicopter noise consistent with a heliport. There will be an increase in noise in the local area during operation due to helicopter operations, however, the commercial development next to the proposed site and the Trans-Canada Highway both contribute to the existing noise in the area. The Heliport Operations Manual states that pilots will use noise abatement profiles appropriate for the helicopter type in so far as safe flight allows minimizing noise impact on surrounding residences. There will be an overall reduction in the number of people affected by helicopter noise due to the lower number of residences around the proposed Project site. The potential adverse effect of increased noise levels in the local area was assessed to be minor given the location of the facility on the outskirts of the City and the distance to the nearest residences. Mitigation of potential effects includes directing the flight path for helicopters away

from nearby residences to aid in noise attenuation. Proposed mitigation for workers includes installing signage warning about elevated noise levels and providing PPE in the form of hearing protection.

5.1.3 Soils and Geology

The soil profile in the Winnipeg area consists of an upper complex zone approximately 3 m in thickness ⁽¹¹⁾. The complex zone consists mainly of stratified silty clay and silt, with varying amounts of alluvial silts and sands and man-made fill ⁽¹¹⁾. High plasticity silty glaciolacustrine clays are found between the upper 3 m complex zone and the glacial till that occurs 12 m to 15 m below grade ⁽¹²⁾. The underlying bedrock is encountered at approximately 18 m to 21 m below ground surface and consists of Red River Formation limestone and dolomite ^(13, 14). The Red River Formation is approximately 100 m thick and is underlain by shale and sandstone deposits of the Winnipeg Formation ⁽¹¹⁾.

During a geotechnical investigation and assessment by KGS Group in October 2017, fifteen test holes (TH) and two wells (W) were drilled at the proposed Project site. In general, the stratigraphy at the site has been interpreted to consist of topsoil, overlying high plasticity silty clay with a clayey silt layer near surface, a thin layer of till and limestone bedrock. The clayey silt layer was encountered in all of the test holes between 0.1 m and 1.9 m below ground surface and was on average 0.7 m thick. Till was encountered in TH17-01 and TH17-02 at a depth of 16.8 m (Elev. 215.3 m) to 17.4 m (Elev. 214.8 m) below existing ground surface. Power auger refusal occurred at 18.1 m (Elev. 213.6 m) to 18.4 m (Elev. 214.0 m), respectively, below existing ground surface in the till. Limestone bedrock was encountered below the till at a depth of 18.1 m (Elev. 213.9 m) in W17-01 and 18.0 m (Elev. 214.1 m) in W17-02 ⁽¹⁵⁾.

5.1.3.1 Effects on Soils and Geology

Soils in the Project area may become contaminated from accidental spills or releases of hazardous substances (fuels, pesticides, etc.) and waste during construction and operation. The contractor will be required to maintain a spill control plan in the work area at all times that includes procedures, instructions and reports to be used in the event of an unforeseen spill of a regulated substance. The potential adverse effects of the Project on soil quality during

construction were assessed to be minor. During operation, the pesticide loading process for the helicopters produces some very minor granular spills, which are confined to the asphalted area and are cleaned up immediately. Should a spill occur within the warehouse, it would be contained within the facility and cleaned up according to the ICB Safe Work Protocols regarding spills and with no impact to soils. Over the course of operations at the Grey Street facility, only one large spill has occurred at the site which happened over 20 years ago and the area was remediated. All chemicals used and stored at the site will be effectively controlled. Storage will be in accordance with appropriate protocols and will be regulated by Agrichemical Warehousing Standards Association (AWSA) and/or the National Fire Code (NFC). The potential adverse effects of operation of the Project on soil quality were assessed to be negligible. Proposed mitigation includes preventing leaks, spills and releases, providing spill clean-up equipment and materials, complying with provincial regulations for storing hazardous materials, adhering to the Chemical and Biological Substances Protocol and the Safe Work Practice for Spill Response (Appendix C) and periodic inspection for leaks, spills and releases. If a spill should occur, the proponent would be responsible to notify MSD Emergency Response Program (204-944-4888) and the appropriate clean-up would be determined according to the size of the spill and quantity of contamination.

5.1.4 Groundwater

The regional hydrogeology of the Winnipeg area consists of two main hydrostratigraphic units: bedrock aquifers and overlying unconsolidated sediments. The silty clay and glacial till deposits overlying the bedrock in the Winnipeg area tend to have low hydraulic conductivities and thus act as an aquitard, restricting groundwater flow⁽¹¹⁾. The low hydraulic conductivity of the aquitard can also restrict the migration of contaminants dissolved in groundwater, thus providing a measure of natural protection to the underlying aquifers. However, the presence of natural fractures and man-made features, such as the sand backfill used for underground water and sewer pipelines, can facilitate the migration of contaminants.

The bedrock beneath Winnipeg has three defined aquifers. The deepest is the Winnipeg Formation Aquifer, also called the Sandstone Aquifer. The Winnipeg Formation Aquifer is generally not used as a source of potable water in the Winnipeg region because the water is too saline. The Red River Formation contains two aquifers, generally designated as Upper and

Lower Carbonate Aquifers. The Lower Carbonate Aquifer, located in a fractured zone within the lower part of the Red River Formation, also has limited use in the Winnipeg area. The water quality in the Lower Carbonate Aquifer is generally poor and the quantity of water available is not as great as in the Upper Carbonate Aquifer. The Upper Carbonate Aquifer is located within the upper fractured limestone and dolomite bedrock of the Red River Formation and is considered a source of potable water. The City does not use groundwater as a potable water source, although some residences outside of the City use groundwater where it is potable. The City obtains potable water via the Winnipeg Aqueduct ^(16, 17) from Shoal Lake, located at the Manitoba-Ontario Border.

As part of an investigation looking into the possibility of using geothermal energy to heat and cool the proposed development, KGS Group drilled two wells at the site on October 17 and 18, 2017. The drilling program identified that the carbonate aquifer is confined by clay at this location. The typical regional bedrock piezometric elevation during non-spring conditions is Elev. 225 m, which is within the clay, approximately 7.7 m below ground surface. Static water levels measured after drilling were at Elev. 225.34 m (approximately 6.75 m below ground surface). Bedrock groundwater quality at the proposed site location is hard, and brackish to saline, with total dissolved solids concentrations in the range of 1,000 mg/L to 1,500 mg/L and chloride concentrations in the range of 300 mg/L to 600 mg/L ⁽¹⁸⁾.

5.1.4.1 Effects on Groundwater

Groundwater in the Project area may become contaminated from leaks, accidental spills, or releases of hazardous substances and waste during construction and operations. Any spills that may occur during construction would be immediately cleaned up according to the construction contractor's spill response plan. Any spills that may occur in the warehouse during operations would be contained within the facility and cleaned up in accordance with the ICB Safe Work Protocols regarding spills. As the helipad and yard are asphalted, any spills in the yard during operation would be prevented from seeping into the underlying soils. The soil overlying the bedrock in the Winnipeg area tend to have low hydraulic conductivities and thus act as an aquitard which can slow the migration of contaminants dissolved in groundwater, providing a measure of natural protection to the underlying aquifers. The potential adverse effects on groundwater quality were assessed to be negligible. Proposed mitigation includes preventing

leaks, spills and releases, providing spill clean-up equipment and materials, complying with provincial regulations for storage of hazardous materials using approved containers, adhering to the Chemical and Biological Substances Safe Work Protocol, the Spill Response Safe Work Practice and periodic inspection for leaks, spills and releases.

5.1.5 Surface Water

The nearest water body is the Red River which is located approximately 400 m north of the Project site. It meanders northward from the City and empties into Lake Winnipeg. Major tributaries of the Red River include the Morris, La Salle, and Assiniboine rivers which flow from the west and the Roseau, Rat, and Seine rivers which flow from the east. The northwestern part of the ecodistrict is part of the Assiniboine River drainage division, while the remainder is part of the Red River drainage division. Both are part of the Nelson River drainage system.

Local overland drainage at the proposed Project site is directed toward a diversion ditch that runs down the approximate middle of the property and the perimeter ditches located south and west of the property. Run-off from the Project will be directed to and controlled by various ditches along St Mary's Road and the Trans-Canada Highway, which discharge to the Red River. Spring floods of the Red River are controlled by the Red River Floodway which diverts water around the City.

5.1.5.1 Effects on Surface Water

Surface water in the LAA may become contaminated from leaks and accidental spills or releases of hazardous substances. Clean surface run-off will be directed toward the ditch along St Mary's Road and will eventually discharge into the Red River. As described in Section 2.4.2, during construction fuels and hazardous materials will be used in designated areas situated a minimum of 100 m from water and contained to prevent any run-off. In addition, any spills will be immediately contained and cleaned up to prevent any contaminant run-off. A spill control plan including procedures, instructions and reports to be used in event of an unforeseen spill of a regulated substance shall be maintained in the work area at all times. Any spills that may occur during operations would be contained within the warehouse or helipad area and cleaned up in accordance with the Chemical and Biological Substances Safe Work Protocol and the Spill Response Safe Work Practice. Site design including curbs, grading and catch basins will

prevent any potential contaminant run-off from entering surface water. In the event of a fire, firewater will be retained in the secondary containment area of the warehouse building and tested to assess potential disposal options. MSD will be contacted and approval will be obtained for the proposed disposal option prior to implementation. A plan for containing, handling, monitoring, storing, treating and disposing of contaminated water in the event of a response to a fire, leak or discharge has not been developed at the current time but will be completed prior to operation. Operation of the existing facility includes application of buffers around water bodies when pesticide is being applied. The potential adverse effects on surface water were assessed to be negligible. Proposed mitigation includes preventing leaks, spills and releases, providing spill clean-up equipment and materials, complying with provincial regulations, storing hazardous materials in approved containers and periodic inspections for leaks, spills and releases.

5.1.6 Vegetation, Mammals and Amphibians

The Biodiversity Information Manager at the Manitoba Conservation Data Centre (MBCDC), completed a search of the MBCDC rare species database and found that there are no species at risk at the Project site. ⁽¹⁹⁾ The list provided by the MBCDC, and included in Appendix H, indicates that there are several species at risk within the RAA including 1 plant, 12 birds, 1 reptile, 1 amphibian and 1 fish. For the purpose of this Project Description, species at risk include those federal species designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for listing on Schedule 1 of the SARA. This includes those species in the risk categories of extirpated, endangered, threatened and of special concern. At the federal level, the SARA is intended to protect wildlife species at risk in Canada. Within the SARA, COSEWIC was established as an independent body of experts responsible for identifying and assessing wildlife species considered at risk. Wildlife species that have been designated by COSEWIC may then qualify for legal protection and recovery under the SARA.

5.1.6.1 Vegetation

The proposed Project site is currently used as an agricultural field with some deciduous trees, primarily trembling aspen and oak, and shrubs along St Mary's Road. The sparse natural vegetation consists mostly of typical weedy species. The ditch along St Mary's Road supports bulrush and wetland grasses. In Manitoba, trembling aspen and shrubs occur on moist sites,

while bur oak and grassland communities occupy increasingly drier sites. Dominant grasses include fescue grasses, wheat grasses, June grass and Kentucky bluegrass. Poorly drained sites support slough grasses, marsh reed grass, sedges, cat-tails and shrubby willow. The Biodiversity Information Manager at the Manitoba Conservation Data Centre (MBCDC) completed a search of the MBCDC rare species database⁽¹⁹⁾ and found no occurrences of federally listed plant species at risk within the Project site. There are no species found at the project site listed under SARA in the risk categories of extirpated, endangered, threatened and of special concern (Appendix H). Within the RAA, the Western Silvery Aster is the only plant identified that is protected under SARA. The species is designated as Threatened under SARA and is found in well-drained calcareous (alkaline) soils in dry prairies and fields, glacial sand and gravel deposits, dry banks and open oak savannas.

5.1.6.2 Mammals

Small mammals found in the Prairie Ecozone include the northern pocket gopher, muskrat, beaver, woodchuck, Richardson's ground squirrel, thirteen-lined ground squirrel, Franklin's ground squirrel, least chipmunk, porcupine, eastern cottontail, and snowshoe hare, although only a few of these adapted to human disturbance are likely to be found within the Project site. The majority of mammals that may be found in the patches of forest within and around the City include small omnivores, white-tailed deer and the occasional fox⁽²⁰⁾. The MBCDC indicated that there are no mammalian species found at the project site listed under SARA in the risk categories of extirpated, endangered, threatened and of special concern.

5.1.6.3 Reptiles and Amphibians

The red-sided garter snake has the northernmost distribution of any species of snake in North America and is the only snake species that may be found in the RAA. They prefer mesic woodlands usually found at the margins of ponds. They hibernate in upland areas where they must find crevices that extend below the frost line.

The snapping turtle is Canada's largest freshwater turtle. The preferred habitat for the species is characterized by slow-moving water with a soft mud bottom and dense aquatic vegetation. Established populations are most often located in ponds, sloughs, shallow bays or river edges

and slow streams, or areas combining several types of wetland habitat ⁽²¹⁾. The MBCDC indicated that the snapping turtle is found within the RAA and is listed as Special Concern under the SARA.

Frog and toad species that may be found in the Winnipeg area include the American toad, wood frog and northern leopard frog which generally require shallow ponds and puddles for breeding and moist environments in shrubby and wooded areas for the rest of the year ⁽²²⁾. The MBCDC indicated that the northern leopard frog (Western Boreal / Prairie population) is found within the RAA and is listed as Special Concern under SARA. There are no species found at the project site that are listed under SARA in the risk categories of extirpated, endangered, threatened and of special concern.

5.1.6.4 Effects on Vegetation, Mammals, Reptiles and Amphibians

The Project site is currently an agricultural field and does not provide any substantial natural vegetation or cover for wildlife. It is unlikely that any wildlife sensitive to human disturbance would be present and the MBCDC found no occurrences or rare or endangered plant and wildlife species at the Project site (Appendix H). Although the plant known as the Western Silver Aster has been identified within the RAA, the MBCDC has no record of the species presence at the Project site. Therefore, the potential adverse effects on the Western Silvery Aster were assessed to be minor. Should the species be identified during construction or operation activities, the MBCDC will be contacted and appropriate mitigation measures will be implemented. As the Project site does not have appropriate habitat for most mammals, effects on mammals as a result of the Project are expected to be negligible. Likewise, the proposed Project site is currently an agricultural field and does not provide any substantial natural vegetation or cover for reptile or amphibian species including the snapping turtle and northern leopard frog. As such, effects on reptiles and amphibians as a result of the Project are expected to be negligible.

5.2 POTENTIAL CHANGES IN THE ENVIRONMENT

Potential effects of the proposed Project to biophysical components of the environment were identified and assessed in Section 5.1. Those changes that may be caused as a result of

carrying out the proposed Project on fish and fish habitat (as defined in *The Fisheries Act*); aquatic species (as defined under SARA); and, migratory birds (as defined under *MBCA*) are noted below.

5.2.1 Fish and Fish Habitat

The Red River is known to support habitat for approximately 70 species of fish. Native species that can be found in the waters of the Red River watershed include chestnut lamprey, silver lamprey, goldeye, mooneye, spotfin shiner, silver chub, emerald shiner, river shiner, spottail shiner, fathead minnow, longnose dace, western blacknose dace, creek chub, quillback, white sucker, bigmouth buffalo, silver redhorse, shorthead redhorse, black bullhead, brown bullhead, channel catfish, stonecat, tadpole madtom, northern pike, central mudminnow, lake whitefish, troutperch, burbot, brook stickleback, rock bass, black crappie, johnny darter, yellow perch, logperch, blackside darter, river darter, sauger, walleye and freshwater drum ⁽²³⁾.

The only aquatic species identified by SARA that is known to be present in the RAA is the Mapleleaf mussel which is designated as Endangered. Records indicate that the species has not been encountered in the Red River near the Project site ⁽¹⁹⁾. Mapleleaf occur mainly in the Assiniboine River and Red River and the lower portions of their tributaries. The Mapleleaf is usually found in medium-to-large rivers with slow-to-moderate currents and firmly packed sand, coarse gravel or clay/mud bottoms (substrates) ⁽²⁴⁾. Provincially ranked aquatic species that may be found in the RAA include the Chestnut Lamprey (rank SU - Possibly in peril, but status uncertain), White Heelsplitter mussel (rank S3 - Uncommon throughout its range or in the province) and the Black Sandshell mussel (rank S3 - Uncommon throughout its range or in the province).

5.2.1.1 Effects on Fish and Fish Habitat

There is only an indirect linkage between the project site and to fish bearing water such as the Red River. The potential effects of the proposed Project on surface water were assessed to be negligible (Section 5.1.5.1) as the contractor will have a designated fueling area and spill response plan with spills immediately contained and cleaned up to prevent any contaminant run-off during construction and site design elements including curbing, grading and catch basins

will prevent the run-off of contaminants during operations. The potential adverse effects on fish, fish habitat and aquatic species, including species at risk, would be negligible.

5.2.2 Migratory Birds

Bird habitat in the RAA includes tree and shrub areas, open fields and ditches. No Important Bird Areas are present within the RAA, with the nearest located at Oak Hammock Marsh, approximately 30 km north of Winnipeg. Environment and Climate Change Canada publishes technical information on general nesting periods to support the planning of activities in order to reduce the risk of detrimental effects to migratory birds⁽²⁵⁾. Winnipeg falls into Zone B4 where the general nesting period for migratory birds is mid-May through the end of July.

The Manitoba Breeding Bird Atlas (MBBA) was consulted to determine what bird species might be affected by the Project and indicates that the Project site is within Administrative Region No. 3: Red River Valley, MBBA Square No. 14PA31⁽²⁶⁾. A total of 94 bird species have been recorded within this square (Appendix K). In addition to those birds identified in the MBBA within Square No. 14PA31, the MBCDC indicated that there are 12 bird species in the RAA that are protected under *The Manitoba Endangered Species and Ecosystems Act* (MESEA), or *The Species at Risk Act*. Migratory bird species identified in Square 14PA31 and which are protected under the MBCA are shown in Table 7.

TABLE 7
MIGRATORY BIRDS FOUND IN MANITOBA BREEDING BIRD REGION 3, SQUARE 14PA31

| Region | Square | Species |
|--------|--------|-------------------|
| 3 | 14PA31 | Canada Goose |
| 3 | 14PA31 | Wood Duck |
| 3 | 14PA31 | Mallard |
| 3 | 14PA31 | Hooded Merganser |
| 3 | 14PA31 | Red-necked Grebe |
| 3 | 14PA31 | Great Blue Heron |
| 3 | 14PA31 | Green Heron |
| 3 | 14PA31 | Sora |
| 3 | 14PA31 | Killdeer |
| 3 | 14PA31 | Spotted Sandpiper |

| Region | Square | Species |
|--------|--------|---------------------------|
| 3 | 14PA31 | Franklin's Gull |
| 3 | 14PA31 | Ring-billed Gull |
| 3 | 14PA31 | Mourning Dove |
| 3 | 14PA31 | Black-billed Cuckoo |
| 3 | 14PA31 | Chimney Swift |
| 3 | 14PA31 | Ruby-throated Hummingbird |
| 3 | 14PA31 | Yellow-bellied Sapsucker |
| 3 | 14PA31 | Downy Woodpecker |
| 3 | 14PA31 | Hairy Woodpecker |
| 3 | 14PA31 | Northern Flicker |
| 3 | 14PA31 | Pileated Woodpecker |
| 3 | 14PA31 | Least Flycatcher |
| 3 | 14PA31 | Eastern Phoebe |
| 3 | 14PA31 | Great Crested Flycatcher |
| 3 | 14PA31 | Western Kingbird |
| 3 | 14PA31 | Eastern Kingbird |
| 3 | 14PA31 | Yellow-throated Vireo |
| 3 | 14PA31 | Warbling Vireo |
| 3 | 14PA31 | Red-eyed Vireo |
| 3 | 14PA31 | Purple Martin |
| 3 | 14PA31 | Tree Swallow |
| 3 | 14PA31 | Cliff Swallow |
| 3 | 14PA31 | Red-breasted Nuthatch |
| 3 | 14PA31 | White-breasted Nuthatch |
| 3 | 14PA31 | House Wren |
| 3 | 14PA31 | Sedge Wren |
| 3 | 14PA31 | Marsh Wren |
| 3 | 14PA31 | Eastern Bluebird |
| 3 | 14PA31 | Gray Catbird |
| 3 | 14PA31 | Cedar Waxwing |
| 3 | 14PA31 | Tennessee Warbler |
| 3 | 14PA31 | Yellow Warbler |
| 3 | 14PA31 | Common Yellowthroat |
| 3 | 14PA31 | Chipping Sparrow |
| 3 | 14PA31 | Clay-colored Sparrow |
| 3 | 14PA31 | Vesper Sparrow |
| 3 | 14PA31 | Lark Sparrow |
| 3 | 14PA31 | Savannah Sparrow |
| 3 | 14PA31 | Song Sparrow |

| Region | Square | Species |
|--------|--------|--------------------|
| 3 | 14PA31 | Indigo Bunting |
| 3 | 14PA31 | Dickcissel |
| 3 | 14PA31 | Western Meadowlark |
| 3 | 14PA31 | Orchard Oriole |
| 3 | 14PA31 | House Finch |

Species ranked and protected under MESEA are evaluated by the MBCDC on the basis of their range-wide (global - G) status, and their province-wide (subnational - S) status according to a standardized procedure used by all Conservation Data Centres and Natural Heritage Programs. For each level of distribution - global and provincial - species are assigned a numeric rank ranging from 1 (very rare) to 5 (demonstrably secure).

Bird species identified in the Square 14PA31 that are protected under MESEA or SARA include the bank swallow, barn swallow, bobolink, Canada warbler, chimney swift, common nighthawk, eastern wood-pewee, loggerhead shrike, peregrine falcon, red-headed woodpecker, whip-poor-will and yellow rail (Appendix H). All of the species noted above are included in the MBCA with the exception of the peregrine falcon and the whip-poor-will. A description of the provincial ranking, SARA and/or COSEWIC designation, and preferred habitat of those birds that may be found in Square 14PA31 is provided below.

The bank swallow is provincially ranked S5B and listed as Threatened by COSEWIC. It breeds in a wide variety of natural and artificial sites with vertical banks, including riverbanks, lake and ocean bluffs, aggregate pits, road cuts, and stock piles of soil. Breeding sites tend to be somewhat ephemeral due to the dynamic nature of bank erosion. Breeding sites are often situated near open terrestrial habitat used for aerial foraging such as grasslands, meadows, pastures, and agricultural cropland ⁽²⁷⁾.

The barn swallow is provincially ranked S4B and listed as Threatened by COSEWIC. It nests in and on artificial structures, including barns and other outbuildings, garages, houses, bridges, and road culverts ⁽²⁸⁾.

The bobolink is provincially ranked S4B and listed as Threatened by COSEWIC. Since the conversion of the prairie to cropland and the clearing of the eastern forests, the bobolink has nested in forage crops (e.g., hayfields and pastures dominated by a variety of species, such as clover, Timothy, Kentucky Bluegrass, and broadleaved plants) ⁽²⁹⁾.

The Canada warbler is provincially ranked S3B and is listed as Threatened under MESEA, SARA and COSEWIC. It uses a wide range of deciduous, coniferous and mixed forests, with a well-developed shrub layer and a structurally complex forest floor. It is most abundant in moist, mixed forests. It also occurs in riparian shrub forest on slopes and in ravines, in stands regenerating after natural and anthropogenic disturbances and in old-growth forests with canopy openings and a well-developed shrub layer ⁽³⁰⁾.

The chimney swift is provincially ranked S2B and is listed as Threatened under MESEA and SARA. Chimney swifts are aerial foragers, often concentrating near water where insects are abundant. The chimney swift used to nest in hollow trees but have recently adapted to nesting in chimneys. The chimney swift is now mainly associated with urban and rural areas where chimneys are available for nesting and roosting ⁽³¹⁾.

The common nighthawk is provincially ranked S3B and is listed as Threatened under MESEA and SARA. The breeding habitat is varied and includes open habitats where the ground is devoid of vegetation, such as sand dunes, beaches, logged areas, burned-over areas, forest clearings, rocky outcrops, rock barrens, prairies, peatbogs and pastures. It can also be found in urban areas where it uses flat gravel roofs for nesting ⁽³²⁾.

The eastern wood-pewee is provincially ranked S4B in Canada and Special Concern by COSEWIC. The eastern wood-pewee is mostly associated with the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in forest stands of intermediate age and in mature stands with little understory vegetation ⁽³³⁾.

The loggerhead shrike is provincially ranked S1B and listed as Endangered under both MESEA and SARA. It may act as a bio-indicator or 'flagship' species for grassland birds of high conservation concern. Loggerhead shrike breeding habitat is characterized by open areas dominated by grasses and/or forbs, interspersed with scattered shrubs or trees and bare

ground. Suitable habitat includes pasture, old fields, prairie, savannah, pinyon-juniper woodland, shrub-steppe and alvar ⁽³⁴⁾.

The peregrine falcon is ranked S1B and listed as Endangered under MESEA and Special Concern under SARA. It inhabits a wide range of habitats from Arctic tundra, sea coasts, and prairies to urban centres. Most peregrine falcons nest on cliff ledges or crevices, but some will also use tall buildings and bridges near good foraging areas ⁽³⁵⁾.

The red-headed woodpecker is provincially ranked S3B and listed as Threatened under both MESEA and SARA. The red-headed woodpecker is found in a variety of habitats, including oak and beech forests, grasslands, forest edges, orchards, pastures, riparian forests, roadsides, urban parks, golf courses, cemeteries, beaver ponds and burns ⁽³⁶⁾.

The whip-poor-will is provincially ranked S3B and listed as Threatened under MESEA and SARA. Whip-poor-will breeding habitat is dependent upon forest structure rather than composition, although common tree associations in both summer and winter are pine and oak. The species avoids both wide-open spaces and closed-canopy forests. Semi-open forests or patchy forests with clearings, such as barrens or forests that are regenerating following major disturbances, are preferred as nesting habitat ⁽³⁷⁾.

The yellow rail is provincially ranked S3B and listed as Special Concern under SARA. Relatively little is known about this small, secretive rail. It is primarily restricted to shallow, dense, grassy marshes and wet meadows. Most of its breeding range (about 90%) is in Canada. It is relatively uncommon in most areas. Yellow rails nest in wet marshy areas of short, grass-like vegetation, usually sedge, that have an overlying dry mat of dead vegetation that they use to roof their nests ⁽³⁸⁾.

5.2.2.1 Effects on Migratory Birds

Migratory bird habitat may be affected by the Project as a result of vegetation removal, by dust and noise from equipment, from excavation for sewer and water pipelines and vehicle collisions during construction and operation. Although several migratory bird species were identified in Square No. 14PA31, the habitat preferred for nesting by most of those species is not present at

the Project site. The effects on migratory birds during construction were assessed as negligible. The proponent recognizes there may be impacts to migratory birds due to tree clearing activities and will observe timing windows prescribed by Environment and Climate Change Canada which publishes technical information on general nesting periods to support the planning of activities in order to reduce the risk of detrimental effects to migratory birds. Clearing would be performed during the pre-construction phase, January to March 2020, in accordance with this restriction. Additional mitigation includes limiting noise-creating activities including heavy equipment operation and truck movements to normal working hours, minimizing construction noise during the bird nesting season, muffling vehicles and equipment, limiting unnecessary long-term idling and requiring a high standard of maintenance for heavy equipment.

During operations, migratory birds may be affected by vehicle emissions (described in Section 5.1.1) as well as vehicular strikes, noise and vibration. The proposed Project site is within the City of Winnipeg and is already subject to vehicle emissions, noise and vibration from existing industrial and commercial developments. The effect to migratory birds from vehicle emissions, noise, and vibrations in the area were assessed as minor. Proposed mitigation includes limiting unnecessary long-term idling and requiring a high standard of maintenance for heavy equipment, limiting noise-creating activities including truck movements and aircraft operations to normal working hours, minimizing noise during the bird nesting season, muffling vehicles and equipment. Destruction of active migratory bird nests will be avoided, as required under the MBCA. If removal of nests in building crevices, cracks, or eaves is deemed necessary during operations, procedures will be followed per Section 28 of the MBCA which addresses permits that may be issued by the Minister of the Environment to remove migratory birds that are considered to be a danger to aircraft.

5.3 POTENTIAL CHANGES ON FEDERAL AND ADJACENT LANDS

Project activities are not expected to cause any changes on federal lands. The proposed Project will be located on private land and is not likely to have any adverse effects on Indigenous communities. The proposed Project will not cause any changes to the environment in a province other than Manitoba, or outside of Canada.

During construction and operations, greenhouse gas and vehicle emissions from the proposed Project are unlikely to exceed Manitoba's air quality guidelines and will therefore have a negligible effect on federal and adjacent lands.

5.4 POTENTIAL EFFECTS ON ABORIGINAL PEOPLES FROM ENVIRONMENT CHANGES

The proposed Project involves the relocation of an existing facility within the City of Winnipeg and will be constructed on land currently used as an agricultural field and owned by the City. The development will be fenced for safety reasons and to prevent public access. There is no known current traditional usage by Indigenous peoples of lands adjacent to the Project site. During operations, helicopters will operate between sun-up and sun-down, however, flight frequency will be dictated by environmental conditions, predominantly rainfall. Additionally, relocating the facility to the outskirts of the City, with the nearest residential property approximately 200 m away, will reduce the number of residents exposed to noise levels during operation. When applying pesticide, the ICB uses buffers around waterbodies. The size of the buffer is entirely dependent on the product being applied. Some products require no buffer or a very small one, whereas others require 90 m or more. Observing buffers around waterbodies will mitigate effects of operation on surface waterbodies, fish and fish habitat.

The City of Winnipeg falls within the traditional homeland of the Métis people which includes the three Prairie provinces (Manitoba, Saskatchewan, Alberta), as well as parts of Ontario, British Columbia, the Northwest Territories and the Northern United States. The area in and around the City has known use by members of the MMF for fishing, hunting, trapping, and cultural purposes. In 2012, the Government of Manitoba and the MMF signed a Métis Harvesting Agreement which designated a Métis Natural Resource Harvesting Zone which extends from the Southeast of Manitoba to north of Lake Winnipeg between Lake Winnipeg and the Saskatchewan border.

The land selected for the proposed development is within the boundaries of the City where municipal by-laws prevent hunting and trapping activities. It is therefore unlikely that the proposed Project will have any effect on traditional activities as a result of potential changes to the biophysical environment, including effects on fish and fish habitat, vegetation, and wildlife resources, which could affect harvesting patterns and/or harvesting success. Residual adverse

environmental effects are unlikely and impacts to traditional activities as a result of the proposed Project are unlikely.

There are no Indigenous land holdings near the project location. The potential effects to Indigenous peoples due to vehicle emissions, noise levels and vibrations as a result of the proposed Project were assessed as negligible. The facility contributes positively to the employment and economy within the City of Winnipeg and the continued operation, while at a different location, will not change the current employment opportunities or the economy in the local and surrounding area.

6.0 ENGAGEMENT AND CONSULTATION WITH ABORIGINAL GROUPS

Engagement with Indigenous groups (First Nation and Métis) was undertaken following the initiation of the Project. It is anticipated that local communities and other interested stakeholders, including Indigenous groups, will be consulted about the development of the heliport (an aerodrome) by the City of Winnipeg as part of their standard practices for projects of this scale. As the proposed Project is still in the early stages the following is a list of typical engagement topics which may be addressed:

- Introduction to the proposed Project and ongoing updates;
- Presentation of Project activities during construction and operation;
- Identification of community comments;
- Introduction of baseline studies being conducted for the proposed Project and community involvement; and
- Collection of site-specific comments and constraints from local stakeholders.

6.1 INTERESTED AND POTENTIALLY AFFECTED ABORIGINAL COMMUNITIES

Indigenous communities that might have an interest in and are potentially directly affected by the proposed Project include Brokenhead Ojibway Nation, Long Plain First Nation, Manitoba Metis Federation, Roseau River Anishinabe First Nation and Swan Lake First Nation and were contacted about the Project. An email and hard copy letter describing the Project was sent to the Indigenous groups noted above.

6.2 ENGAGEMENT ACTIVITIES WITH ABORIGINAL COMMUNITIES AND GROUPS

KGS Group contacted several Indigenous groups identified as having interests within the Regional Study Area to solicit their responses in relation to the proposed Project. Letters were sent by email and by regular post, which included Project-specific information to help the groups determine if the proposed Project may potentially affect their Indigenous rights, ability to hunt, fish and trap for food, and/or carry out traditional activities (Appendix L). On November 3, 2017, Jasmine Langhan, Engagement and Consultation Coordinator for the MMF, responded to the letter and indicated their interest in learning more about the Project (Appendix L). A meeting is being pursued with Ms. Langhan and the MMF.

6.3 KEY COMMENTS

At the time of writing, only the MMF had responded to the engagement letter. The response from the MMF indicated that the Project falls within the City of Winnipeg, the traditional homeland of the Métis people. As such, the MMF is interested in how the Project might impact the rights, interests, and claims of Manitoba Métis peoples and requested that a meeting be arranged (Appendix L). As described in Section 6.4, the City of Winnipeg Asset Management Project Management Manual (the “AMPMM”) includes sections specifically addressing public engagement activities to identify and address community needs and issues in the work undertaken by the City of Winnipeg. Some of the guiding principles of the City of Winnipeg engagement process include encouragement of participation by those who will be affected by a decision as well as allowing the public to be involved in the community engagement process as early as possible so that stakeholders have time to learn about the issue and actively participate. Concerns can be raised by interested parties throughout the development of the Project.

6.4 NEXT STEPS IN ENGAGEMENT AND INFORMATION GATHERING

The City of Winnipeg will engage stakeholders, including Indigenous groups, per their standard procedures when developing a project of this type. The City will follow guidance provided by Transport Canada regarding aerodrome development requirements. According to the City of Winnipeg AMPMM, the stakeholder list will be made up of all those people and organizations affected by the Project, including Indigenous groups. Stakeholders are identified early in the process to identify their interest and determine their level of participation, since the level of effort in interacting with stakeholders can vary widely and in some cases can be extensive. Stakeholder assessment ensures that all perspectives are brought to the table. This improves the likelihood that a broad range of perspectives are addressed, that there is a positive attitude to decision outcomes and that as a result it is less likely to result in changes to Project scope, schedule and costs. A stakeholder assessment must be developed to record stakeholder interests and expectations and to define their importance and influence. This information is used to categorize stakeholders by potential impact on the Project, and strategies are developed to minimize potential negative impacts and maximize positive impacts. The stakeholder assessment is part of the Project communication plan and public engagement plan.

7.0 CONSULTATION WITH THE PUBLIC AND OTHER PARTIES

The City of Winnipeg has undertaken a number of planning studies in order to direct growth and development. As part of the City's planning process, it was determined that a BRT corridor through the Elmwood neighborhood would be beneficial to city residents⁽⁴⁾, although the corridor would require land currently occupied by the City's heliport and ICB headquarters. Consultation with members of the public that helped to shape the City's transportation plans are described below:

- Three open houses in November 2010, July 2011 and October 2011.
- A web-survey to solicit views on transportation, with over 500 responses.
- Hosting of three advisory committee meetings.
- Preparation of newsletters to inform the public at various stages of the plan.

Individual meetings with 16 stakeholder groups including:

- Active Transportation advisory committee
- Urban Development institute
- Economic Development Winnipeg
- CentrePort Canada
- Manitoba Trucking Association
- Mayor's Seniors Advisory Committee
- Post-secondary student unions
- Immigration and refugee organizations
- Manitoba section of the Institute of Transportation Engineers
- Unicity Taxi and Duffy's Taxi
- Rapid Transit Coalition
- Indigenous Council of Winnipeg
- Winnipeg Access Advisory Committee
- Winnipeg Airports Authority
- Winnipeg biz associations
- Winnipeg Chamber of Commerce

In addition to formal meetings, comments were solicited through the project page on the speakupWinnipeg website at <http://www.transportation.speakupwinnipeg.com/>

As part of the proposed Project, it is anticipated that the City of Winnipeg website will be used to provide Project updates, news releases and information about the Project as they do for many other transit projects.

Aside from the City-initiated consultation, KGS Group reviewed the Regulations Amending the Canadian Aviation Regulations (Aerodrome Work Consultations) to determine if Transport Canada required consultations relating to the proposed Project. Transport Canada has determined that there are some circumstances when these amendments should not apply and exemptions are provided for heliports and aerodromes which are primarily used for helicopter operations⁽³⁹⁾. As such, further consultation relating to the proposed Project is not a requirement of Transport Canada and will be initiated at the discretion of the City.

7.1 OVERVIEW OF COMMENTS FROM THE PUBLIC AND OTHER PARTIES

To date, there have been no comments or concerns expressed by the public and other parties relating to the construction and relocation of the City of Winnipeg heliport.

7.2 PROPOSED STAKEHOLDER CONSULTATION ACTIVITIES

As the proposed Project is currently in the development stage, currently there are no proposed stakeholder consultation activities. Should the proposed Project proceed, the City of Winnipeg will determine what requirements exist for public engagement (e.g. meetings, Public Open Houses, etc.) and notifications will be issued to inform stakeholders according to a communication plan which will be developed for the Project. The communication plan will define who will communicate with whom (stakeholder assessment) and who will receive what information when (communication plan). Responsibilities and key decision makers in the City's public engagement and consultation process are identified in the AMPMM. Interested stakeholders as determined by the project management team may be invited to attend Public Open Houses and provide feedback regarding the proposed Project.

The City of Winnipeg is committed to open and transparent discussions with communities and interested stakeholders potentially affected by the Project who want additional information or want to provide input into the proposed Project. As the proposed Project is currently in the

development stage, there are no dates planned for meetings or Public Open Houses. If the proposed Project proceeds, planning will follow the guidelines provided in the AMPMM.

7.3 CONSULTATION WITH REGULATORY AUTHORITIES

7.3.1 NAV Canada

On February 16, 2016, an email was sent to a Land Use Specialist in the Aeronautical Information Management section of NAV Canada regarding the Project which was in preliminary planning stages (Appendix H). The intent of the email was to gain an understanding of some of the technical requirements and approvals that would be required to develop a four pad heliport. Specifically, the inquiry was to determine if the chosen site was acceptable related to existing flightpaths and other existing developments as well as the technical requirements relating to building design. NAV Canada assessed the proposal for potential impacts to the Air Navigation System and installations and responded that they had no objection to the Project, as submitted. It was noted that a formal Land Use application would need to be filed when more details were known about the Project, in order to update NAV Canada publications.

7.3.2 Transport Canada

Transport Canada's responsibility is to assess the proposed Project for marking, lighting and regulatory requirements. In order to determine the level of public consultation required by Transport Canada (TC) for development of the aerodrome, TC was contacted by phone on November 7, 2017. This was followed up by two emails, one sent on November 7, 2017 and a second on November 21, 2017 (Appendix H). The inquiries were relating to changes to the Regulations Amending the Canadian Aviation Regulations (Aerodrome Work Consultations). It was determined that the Project would not require additional public consultation beyond that undertaken by the City of Winnipeg during the development of the City's TMP and that which would normally be undertaken by the City to inform citizens of upcoming municipal projects.

8.0 REFERENCES

1. *City of Winnipeg. 2017. Adult Mosquito Control Policy. Public Works Department, Insect Control Branch. Winnipeg, Manitoba.*
2. *City of Winnipeg. 2017. Mosquito Control: Larviciding. Public Works Department, Insect Control Branch. Website visited December 2017 at <http://winnipeg.ca/publicworks/insectcontrol/mosquitoes/larviciding.stm>*
3. *City of Winnipeg Heliport Operations Manual, Certificate No. 5151-C504. December 2013. Public Works Department, Insect Control Branch. Winnipeg, Manitoba.*
4. *City of Winnipeg. 2017. Transportation Master Plan – Moving Winnipeg Toward 2031. Public Works Department. Website visited October 2017 at <http://www.winnipeg.ca/publicworks/transportation/transportationmasterplan.stm>*
5. *Government of the United States. 2017. Department of Energy and the Environment. Greenhouse Gas Equivalencies Calculator. Website visited January 2018 at <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>*
6. *Government of Canada. 2017. Aboriginal Lands of Canada Legislative Boundaries. Website visited December 2017 at <http://open.canada.ca/data/en/dataset/522b07b9-78e2-4819-b736-ad9208eb1067>*
7. *KGS Group. Memorandum: City of Winnipeg Insect Control Branch Relocation - Municipal Servicing Study. January 31, 2018. Winnipeg, Manitoba.*
8. *Smith, R.E., H. Veldhuis, G.F. Mills, R.G. Eilers, W.R. Fraser, and G.W. Lelyk. 1998. Terrestrial Ecozones, Ecoregions and Ecodistricts: An Ecological Stratification of Manitoba's Natural Landscapes. Technical Bulletin 98-9E. Land Resource Unit, Brandon Research Centre, Research Branch, Agriculture and Agri-Food Canada, Winnipeg, Manitoba.*
9. *Government of Canada. 2017. Environment Canada Canadian Climate Normals. Website visited October 2017 at <http://climate.weather.gc.ca/>*
10. *Government of Canada. 2017. Facility greenhouse gas reporting: overview of reported emissions 2016. Website visited December 2017 at <https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/facility-reporting/overview-2016.html>*
11. *University of Manitoba Department of Engineering. February 1983. Geological Engineering Report for Urban Development of Winnipeg.*
12. *University of Manitoba Department of Engineering. 1983. Geological Engineering Report for Urban Development of Winnipeg. Plate 2, Depth to Till. Scale 1:50,000.*
13. *Manitoba Energy and Mines. 1990. Bedrock Compilation Map Series. Winnipeg, NTS 62 H. Scale 1:50,000.*
14. *University of Manitoba Department of Engineering. 1983. Geological Engineering Report for Urban Development of Winnipeg. Plate 4, Depth to Bedrock. Scale 1:50,000.*

15. KGS Group. November 2017. *Insect Control Branch Relocation Geotechnical Investigation and Assessment Report. Draft. Winnipeg, Manitoba.*
16. Province of Manitoba. 1986. *Department of Natural Resources, Water Resources Branch; Aquifer Maps of Southern Manitoba; Map 2 of 2 Sand and Gravel Aquifers.*
17. Province of Manitoba. 1986. *Department of Natural Resources, Water Resources Branch; Aquifer Maps of Southern Manitoba; Map 1 of 2 Bedrock Aquifers.*
18. KGS Group. November 2017. *Insect Control Branch Relocation Hydrogeologic Report. Draft.*
19. Province of Manitoba. February 2017. *Department of Sustainable Development, Conservation Data Centre. Personal Communication with Chris Friesen, Coordinator.*
20. Faculty of Architecture, University of Manitoba. 2003. *Winnipeg & Region Green Map: Urban Wildlife. Website accessed November 2017 at http://www.arch.umanitoba.ca/greenmap/pages/GM_KS_AssinPark/pages/3.html*
21. COSEWIC. 2008. *COSEWIC assessment and status report on the Snapping Turtle Chelydra serpentina in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp.*
22. Doug Collicutt. 2017. *The Manitoba Herps Atlas. Webpage access November 2017 at http://www.naturenorth.com/Herps/Manitoba_Herps_Atlas.html*
23. Stewart, K. and D. Watkinson. 2004. *The Freshwater Fishes of Manitoba. University of Manitoba Press. Winnipeg.*
24. COSEWIC. 2006. *COSEWIC assessment and status report on the Mapleleaf Mussel Quadrula quadrula (Saskatchewan-Nelson and Great Lakes-Western St. Lawrence populations) in Canada. Website visited November 2017 at www.sararegistry.gc.ca*
25. Government of Canada. 2017. *Avoiding Harm to Migratory Birds. General nesting periods of migratory birds. Website visited November 2017 at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>*
26. Bird Studies Canada. 2017. *Manitoba Breeding Bird Atlas. Website visited December 2017 at <http://www.birdatlas.mb.ca/>*
27. COSEWIC. 2013. *COSEWIC assessment and status report on the Bank Swallow Riparia riparia in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.*
28. COSEWIC. 2011. *COSEWIC assessment and status report on the Barn Swallow Hirundo rustica in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.*
29. COSEWIC. 2010. *COSEWIC assessment and status report on the Bobolink Dolichonyx oryzivorus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.*
30. COSEWIC. 2008. *COSEWIC assessment and status report on the Canada Warbler Wilsonia Canadensis in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.*

31. COSEWIC 2007. COSEWIC assessment and status report on the Chimney Swift *Chaetura pelagica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
32. COSEWIC 2007. COSEWIC assessment and status report on the Common Nighthawk *Chordeiles minor* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
33. COSEWIC. 2012. COSEWIC assessment and status report on the Eastern Wood-pewee *Contopus virens* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
34. COSEWIC. 2014. COSEWIC assessment and status report on the Loggerhead Shrike Eastern subspecies *Lanius ludovicianus* ssp. and the Prairie subspecies *Lanius ludovicianus excubitorides* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
35. COSEWIC 2007. COSEWIC assessment and update status report on the Peregrine Falcon *Falco peregrinus* (pealei subspecies - *Falco peregrinus* and pealei anatum/tundrius - *Falco peregrinus anatum/tundrius*) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
36. COSEWIC 2007. COSEWIC assessment and update status report on the Red-headed Woodpecker *Melanerpes erythrocephalus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
37. COSEWIC. 2009. COSEWIC assessment and status report on the Whip-poor-will *Caprimulgus vociferus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
38. COSEWIC. 2009. COSEWIC assessment and status report on the Yellow Rail *Coturnicops noveboracensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
39. Government of Canada. 2016. Canada Gazette – Regulations Amending the Canadian Aviation Regulations (Aerodrome Work Consultations). Ottawa. Website visited November 2017 at <http://www.gazette.gc.ca/rp-pr/p2/2016/2016-10-19/html/sor-dors261-eng.php>

9.0 STATEMENT OF LIMITATIONS AND CONDITIONS

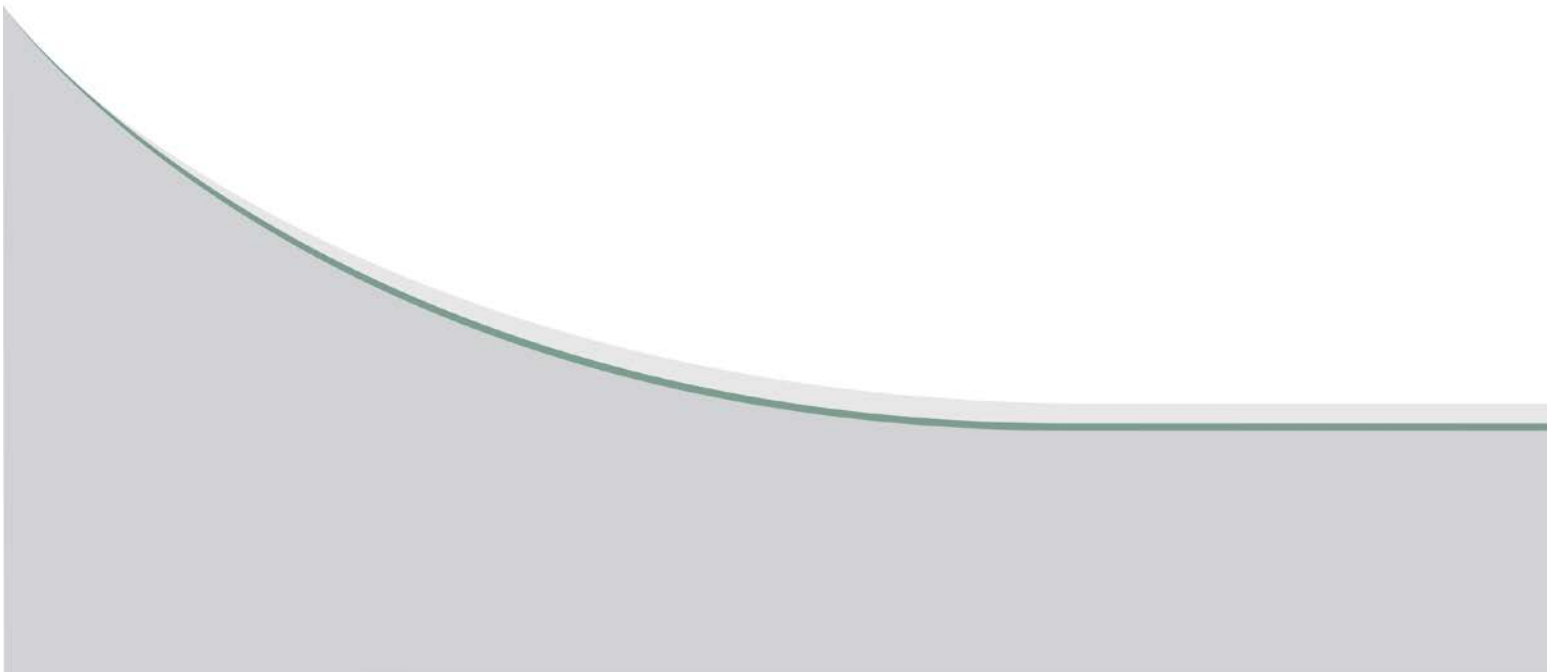
9.1 THIRD PARTY USE OF REPORT

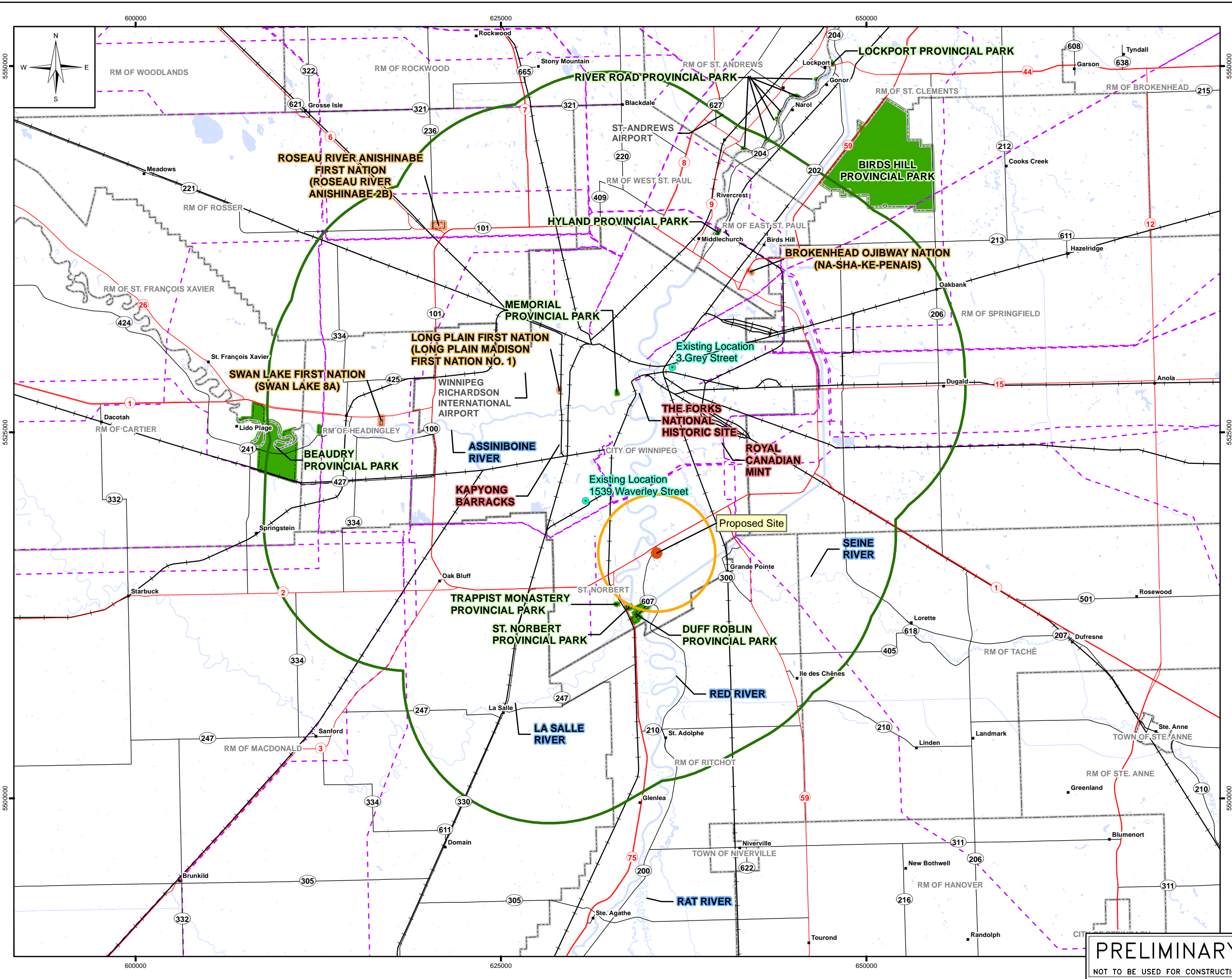
This report has been prepared for The City of Winnipeg and any use a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. KGS Group accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions undertaken based on this report.

9.2 ENVIRONMENTAL STATEMENT OF LIMITATIONS

KGS Group prepared the environmental conclusions and recommendations for this report in a professional manner using the degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. The information contained in this report is based on the information that was made available to KGS Group during the investigation and upon the services described which were performed within the time and budgetary requirements of The City of Winnipeg. As the report is based on the available information, some of its conclusions could be different if the information upon which it is based is determined to be false, inaccurate or contradicted by additional information. KGS Group makes no representation concerning the legal significance of its findings or the value of the property investigated.

FIGURES

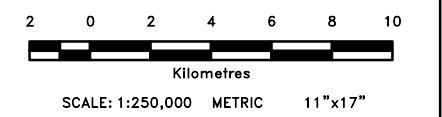




LEGEND:

- Existing Location
- Site
- Provincial Highway
- Provincial Road
- Railway Line
- - - Transmission Line
- First Nation
- Provincial Park
- Rural Municipality
- City of Winnipeg
- Lakes/Rivers
- Project Footprint
- Local Assessment Area
- Regional Assessment Area
- Manitoba.DBO Province

NOTES:
 1. All units are metric and in metres unless otherwise specified. Transverse Mercator Projection, NAD 1983, Zone 14. Elevations are in metres above sea level (MSL).



| NO. | YY/MM/DD | DESCRIPTION | ISSUED BY | CHECK BY |
|-----|----------|---|-----------|----------|
| 2 | 18/03/26 | RE-ISSUED WITH FINAL CEAA PROJECT DESCRIPTION | GS | BAT |
| 1 | 18/01/22 | RE-ISSUED WITH CEAA PROJECT DESCRIPTION | GS | BAT |
| 0 | 18/01/02 | ISSUED WITH CEAA PROJECT DESCRIPTION | GS | BAT |

REVISIONS / ISSUE

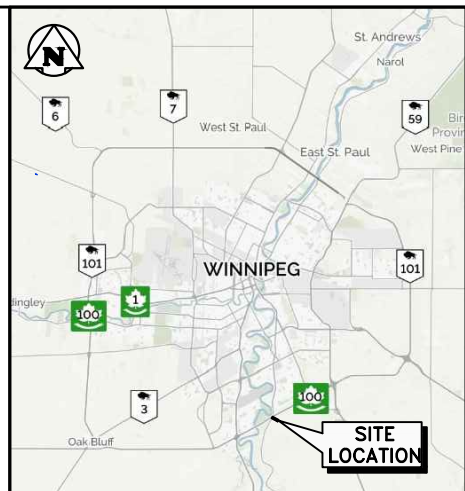
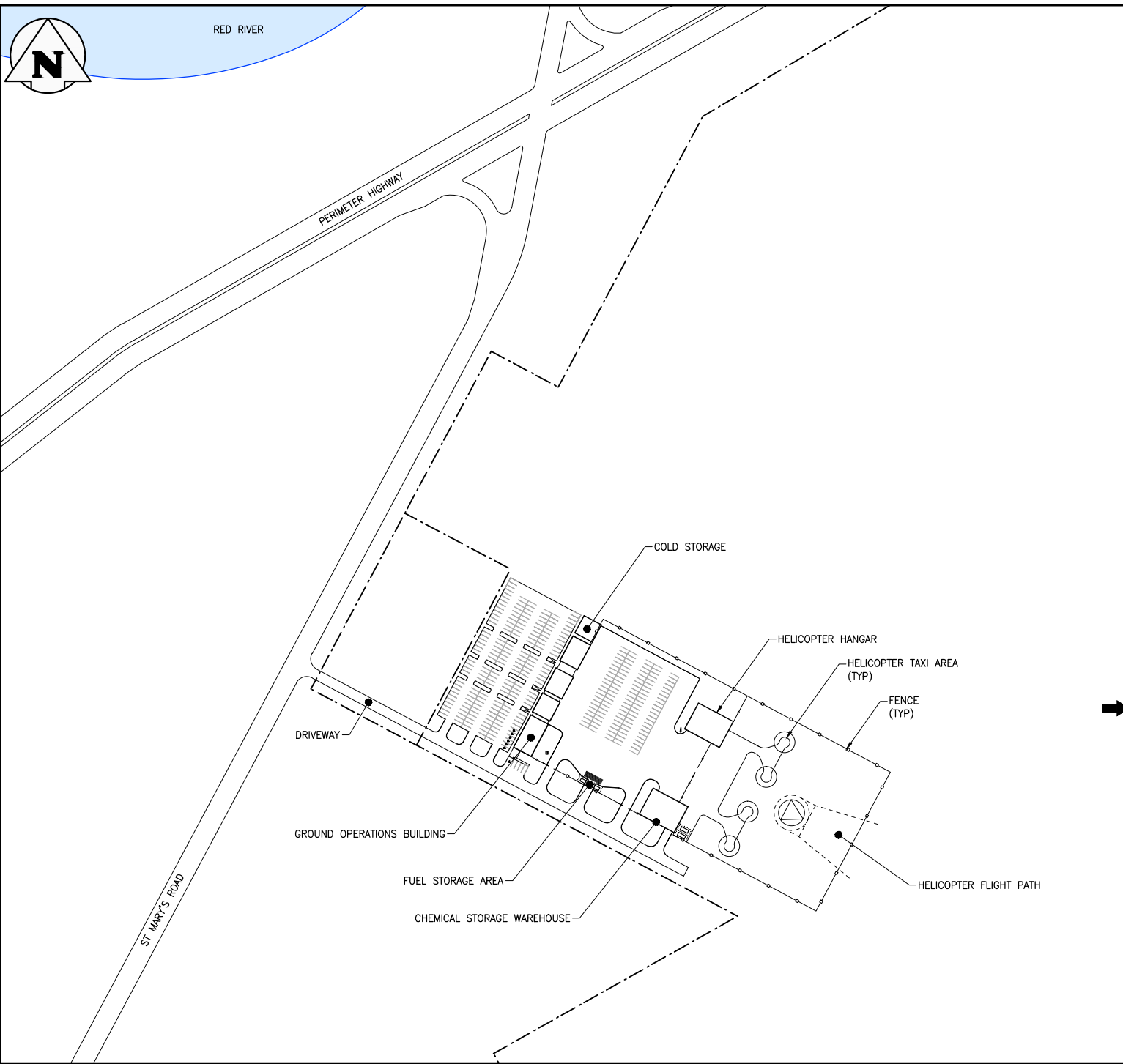
**INSECT CONTROL BRANCH RELOCATION
CEAA PROJECT DESCRIPTION**

REGIONAL ASSESSMENT AREA

| | | | |
|---|------------|-----------|--------|
| PRELIMINARY NOT TO BE USED FOR CONSTRUCTION | MARCH 2018 | FIGURE 01 | REV: 2 |
|---|------------|-----------|--------|

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8.5x11



KEY MAP

LEGEND:

————— PROPERTY LINE

| NO. | YY/MM/DD | DESCRIPTION | ISSUED BY | CHECK BY |
|-----|----------|---|-----------|----------|
| 2 | 18/03/26 | RE-ISSUED WITH FINAL CEEA PROJECT DESCRIPTION | GS | SFM |
| 1 | 18/03/15 | ISSUED WITH PROJECT DESCRIPTION | GS | SFM |
| 0 | 18/01/4 | ISSUED WITH PROJECT DESCRIPTION | GS | SFM |

REVISIONS / ISSUE



INSECT CONTROL BRANCH RELOCATION
CEEA PROJECT DESCRIPTION

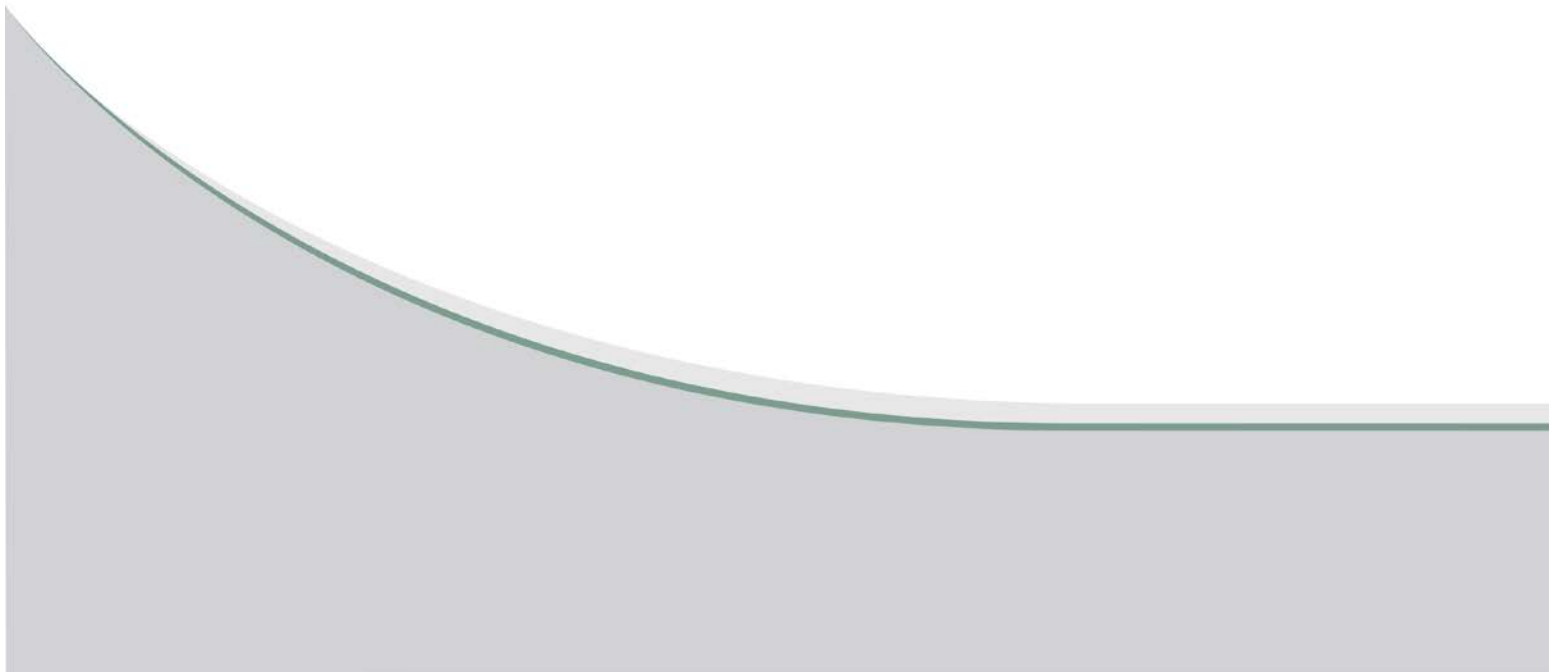
SITE LOCATION PLAN

MARCH 2018

FIGURE 02

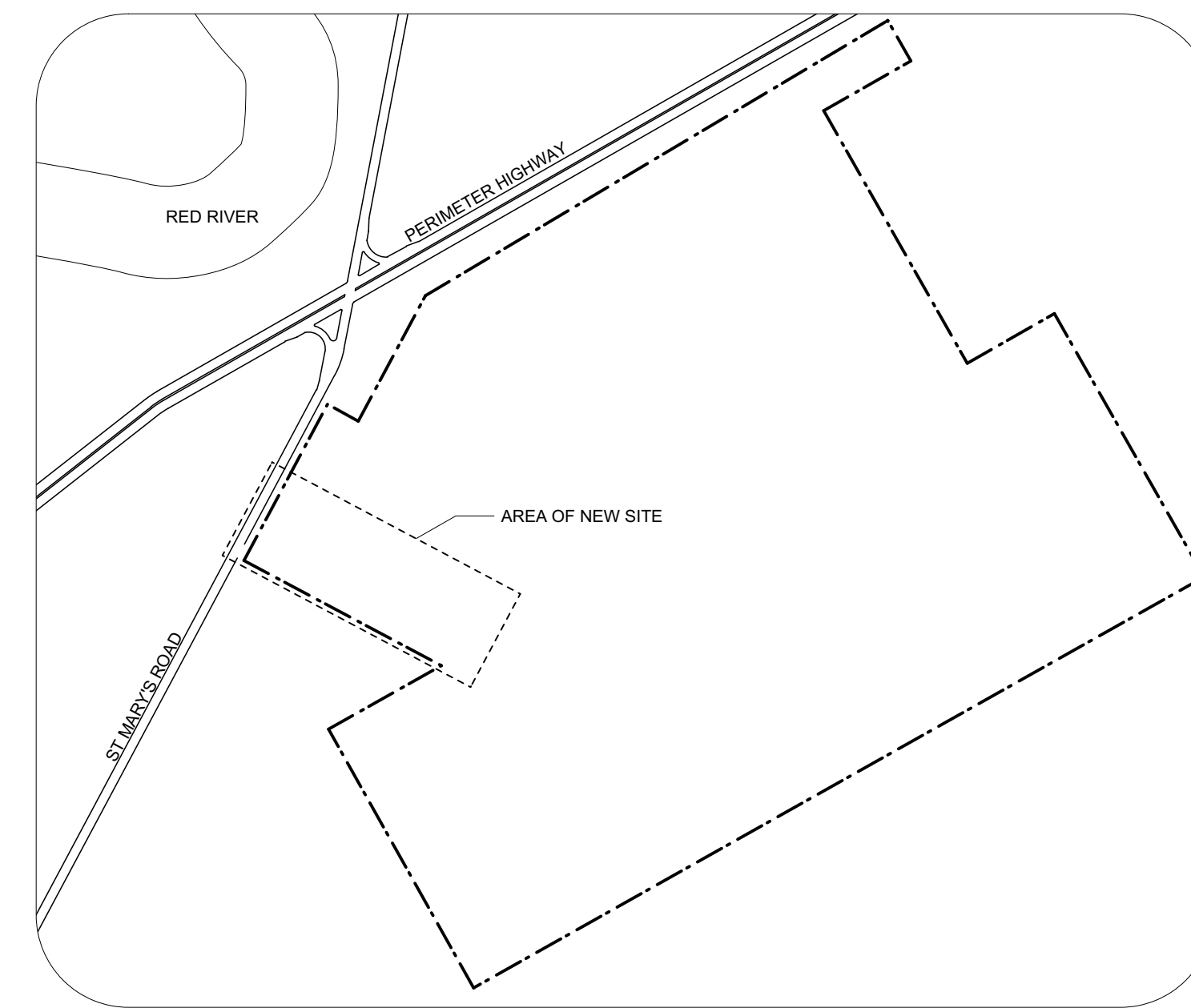
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APPENDIX A
PRELIMINARY ARCHITECTURAL DRAWINGS

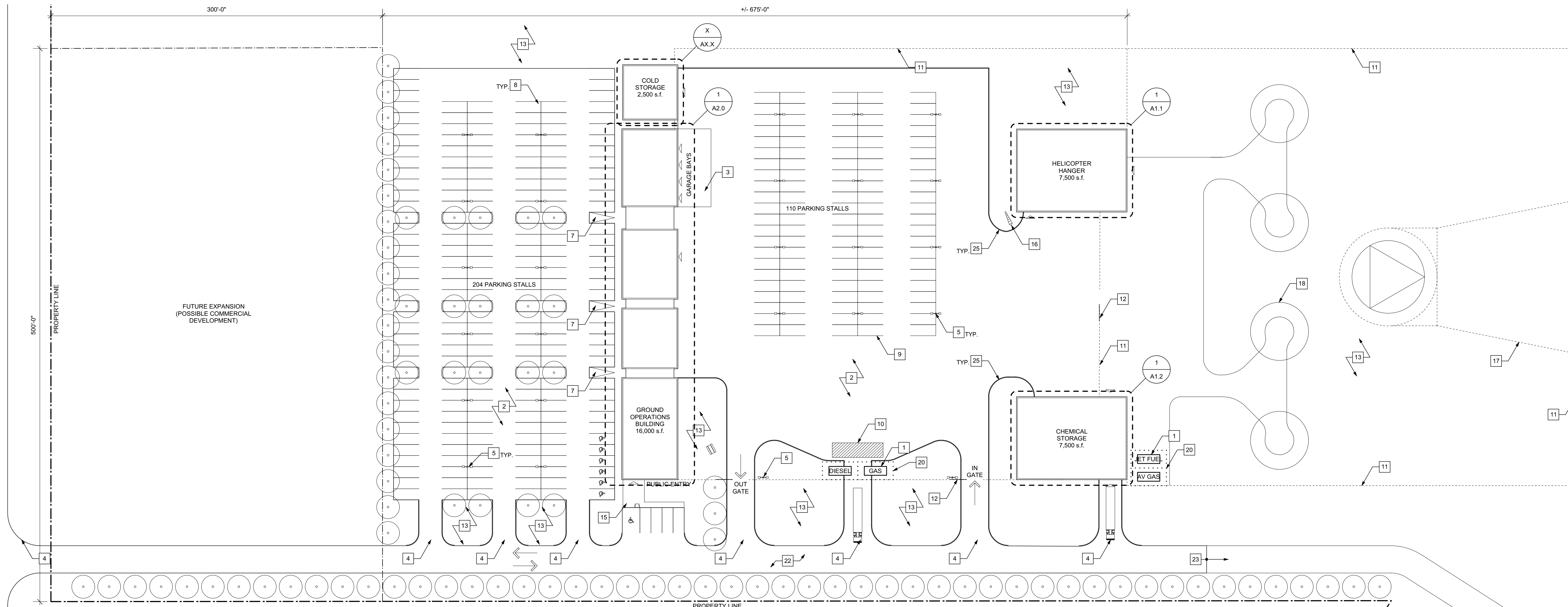


KEYNOTES

- 1 FUEL TANK
- 2 ASPHALT - REFER TO CIVIL.
- 3 CONCRETE APRON
- 4 NEW CONC. APPROACH TO CITY OF WINNIPEG STANDARDS
- 5 LIGHT STANDARD CW SURVEILLANCE CAMERA
- 6 NOT USED
- 7 SLOPED CONCRETE SIDEWALK
- 8 CONCRETE WHEEL STOP
- 9 100mm PAINTED WHITE PARKING LINES ON ASPHALT - TYP.
- 10 DESIGNATED FUELING AREA
- 11 NEW CHAIN LINK FENCE - REFER TO SPEC.
- 12 RETRACTABLE CHAIN LINK GATE CW ROLLER WHEELS - REFER TO SPEC.
- 13 NEW SOD
- 14 NOT USED
- 15 CONCRETE SIDEWALK
- 16 WIND SOCK (N.I.C.)
- 17 HELICOPTER FLIGHT PATH
- 18 HELICOPTER TAXI AREA
- 19 152mm CONC. CURB TO CITY OF WINNIPEG STANDARDS - REFER TO CIVIL.
- 20 152mm CONC. FILLED BOLLARD
- 21 BARRIER FENCE CW ELECTRICAL PARKING RECEPTACLES
- 22 NEW CONC. ROADWAY TO CITY OF WINNIPEG STANDARDS - REFER TO CIVIL.
- 23 FUTURE ROADWAY
- 24 BIKE RACK - REFER TO SPEC.



2 KEY PLAN
SCALE: 1:10000



1 SITE PLAN
SCALE: 1:600

| No. | DATE | REVISION / ISSUANCE |
|-----|----------|---------------------|
| 5 | YY.MM.DD | - |
| 4 | YY.MM.DD | - |
| 3 | YY.MM.DD | - |
| 2 | YY.MM.DD | - |
| 1 | YY.MM.DD | - |

Architect

x | architecture inc.
120 Fort Street, Suite 103 Winnipeg, Manitoba R3C 1C7 204 318 2010

Engineer

**PRELIMINARY
NOT FOR
CONSTRUCTION**

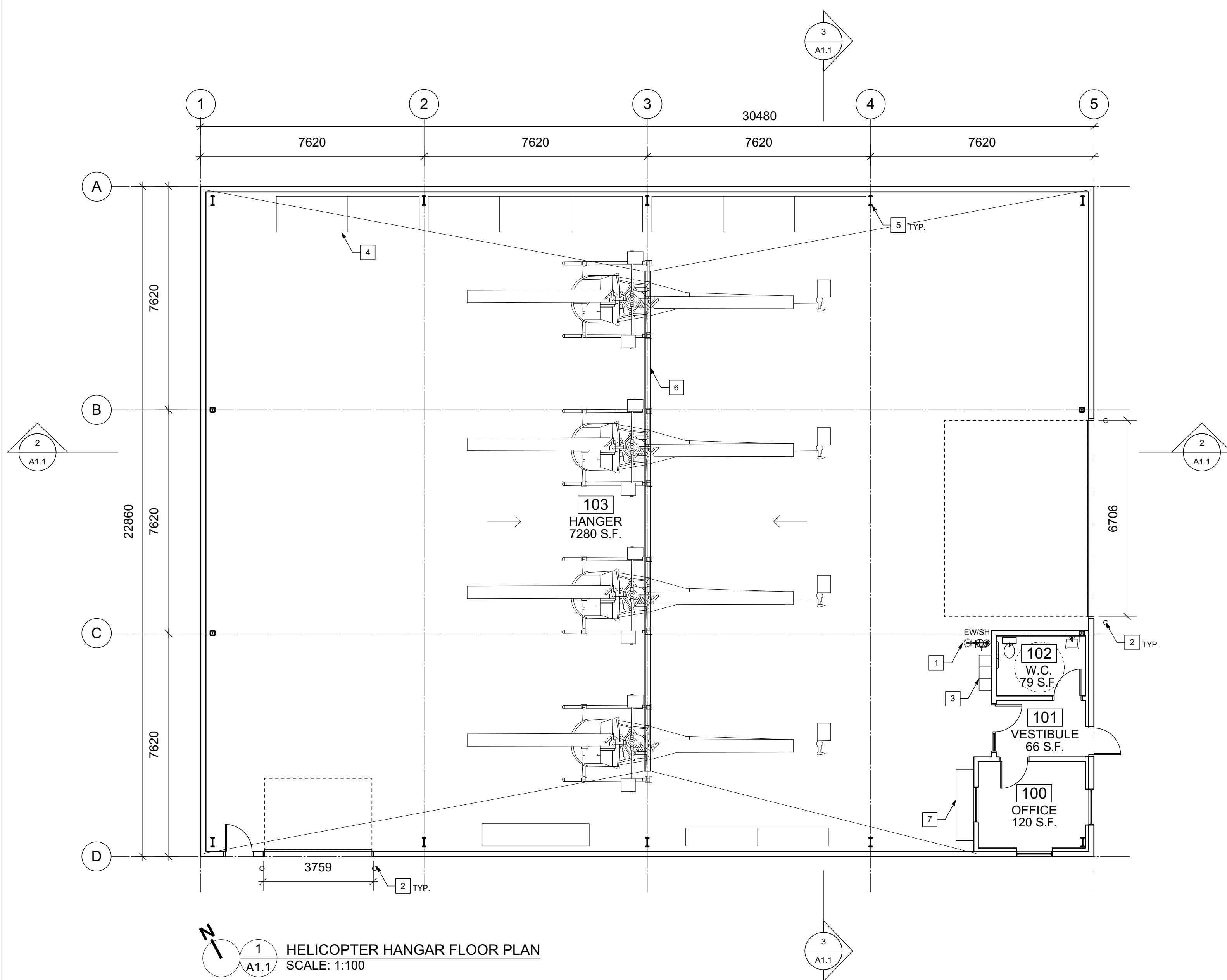
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SITE PLAN

Project No. 1533
Date AUG 22, 2016

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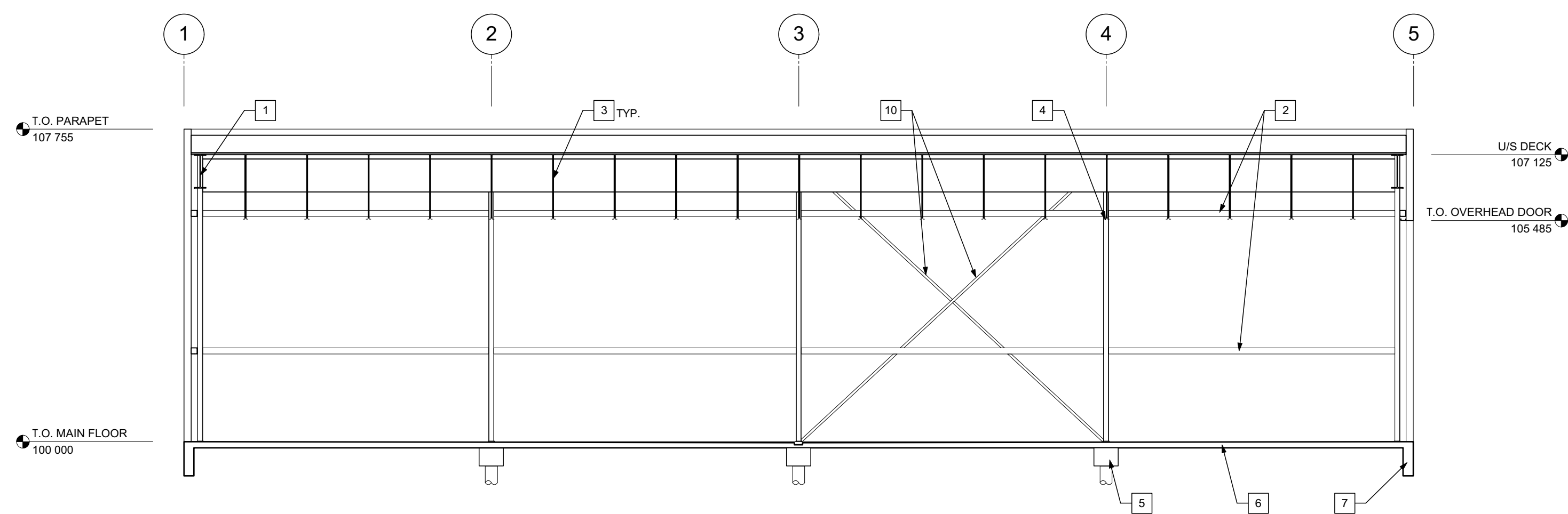
1 HELICOPTER HANGAR FLOOR PLAN
SCALE: 1:100

FLOOR PLAN KEYNOTES

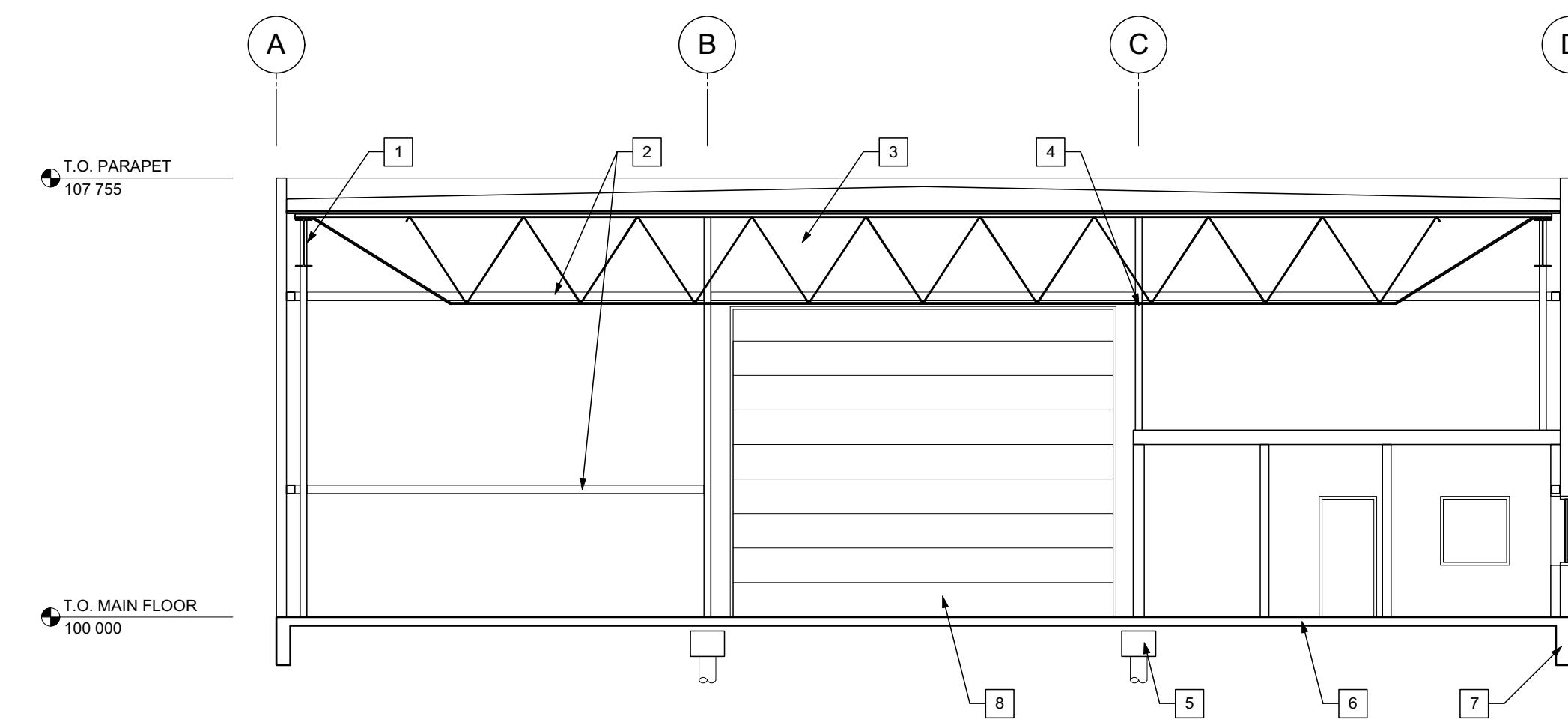
- 1 EYE WASH STATION - REFER TO SPEC.
- 2 CONC. BOLLARD - REFER TO SPEC.
- 3 LOCKERS - NIC
- 4 RACKING - NIC
- 5 COLUMN - REFER TO STRUCT.
- 6 TRENCH DRAIN - REFER TO STRUCT.
- 7 MILLWORK - NIC
- 8 LOADING DOCK LEVELER - REFER TO SPEC.
- 9 NOT USED
- 10 NOT USED

SECTION KEYNOTES

- 1 STL. BEAM - REFER TO STRUCT.
- 2 HORIZONTAL GIRT - REFER TO STRUCT.
- 3 OWSJ - REFER TO STRUCT.
- 4 STL. COLUMN - REFER TO STRUCT.
- 5 PILE - REFER TO STRUCT.
- 6 150mm CONC. SLAB - REFER TO STRUCT.
- 7 GRADE BEAM - REFER TO STRUCT.
- 8 22' x 18' OVERHEAD DOOR - REFER TO SPEC.
- 9 12' x 12' OVERHEAD DOOR - REFER TO SPEC.
- 10 CROSS BRACING - REFER TO STRUCT.



2 HELICOPTER HANGAR SECTION
SCALE: 1:100



3 HELICOPTER HANGAR SECTION
SCALE: 1:100

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**HELICOPTER HANGAR
PLAN & SECTIONS**

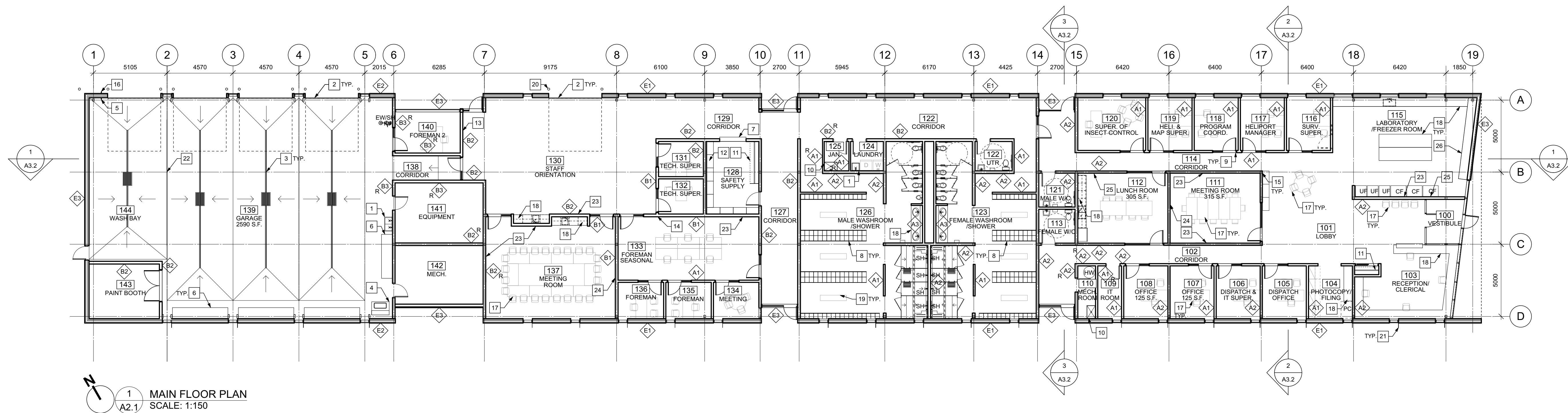
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MAIN FLOOR PLAN

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 Sheet **A2.0**

KEYNOTES

- 1 STAINLESS STEEL UTILITY SINK
- 2 OVERHEAD DOOR - REFER TO SPEC.
- 3 SLOT DRAIN c/w OIL/SEDIMENT INTERCEPTOR. REFER TO SPEC. CENTRE SLOT DRAIN ON O/H DOORS
- 4 SAND BLASTING CHAMBER (N.I.C.)
- 5 HOSE BIB
- 6 TOOL CRIB (N.I.C.)
- 7 COILING COUNTER DOOR C/W STAINLESS STL. COUNTER
- 8 LOCKERS C/W SLOPED TOPS - REFER TO SPEC.
- 9 SIDELITE
- 10 MOPSINK
- 11 ROD & SHELF - REFER TO SPEC.
- 12 METAL SHELVING (N.I.C.)
- 13 WHITE BOARD/TRUCK INFORMATION KEYS (N.I.C.)
- 14 MAPS (N.I.C.)
- 15 COLUMN- REFER TO STRUCT.
- 16 WATER FILL STATION C/W BACKFLOW PREVENTOR- REFER TO MECH.
- 17 FURNITURE (N.I.C.)
- 18 MILLWORK
- 19 BENCHES (N.I.C.)
- 20 150 DIA. CONC. FILLED STL. BOLLARD (PTD.)- TYP. OF 11
- 21 STAINLESS STEEL FIN - REFER TO ELEVATIONS
- 22 WASH BAY CURTAIN - REFER TO SPEC.
- 23 WHITE BOARD - REFER TO SPEC.
- 24 PROJECTOR SCREEN - REFER TO SPEC
- 25 TACK BOARD - REFER TO SPEC.
- 26 2440mm HEIGHT MILLWORK CABINETS

EXTERIOR WALL TYPES:

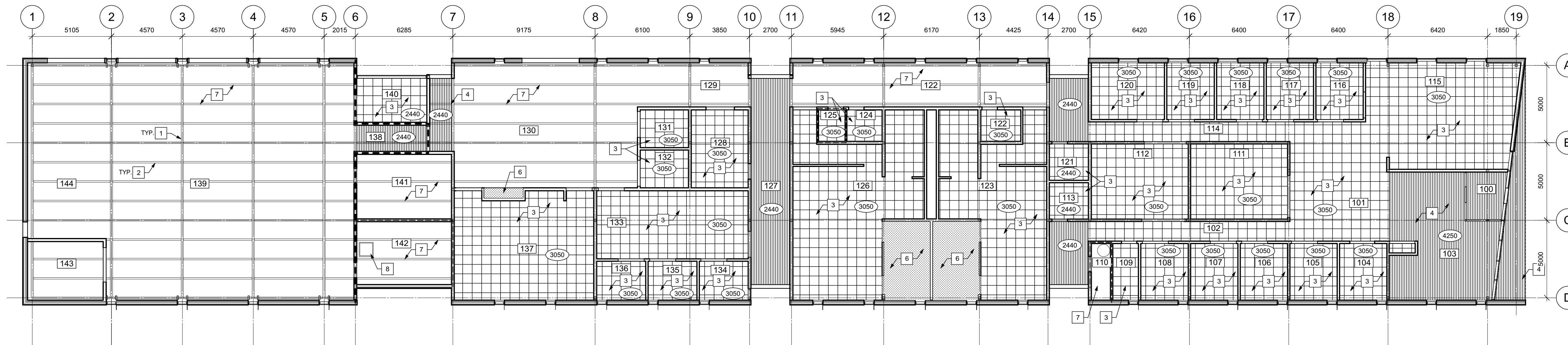
- E1) FRR - 1 HR (WHEN DESIGNATED) (PRE-CAST CONCRETE WALL) TH - 316mm
 • 63 CONCRETE WYTHE
 • 100 EPS INSULATION
 • 63 POLY ISO INSULATION
 • 63 CONCRETE WYTHE
 • 41 STEEL STUDS @ 400 O.C.
 • 13 TYPE X GYPSUM BOARD
 • FINISH - SEE ROOM FINISH SCHEDULE
- E2) FRR - 1 HR (WHEN DESIGNATED) (PRE-CAST CONCRETE WALL) TH - 316mm
 • 63 CONCRETE WYTHE
 • 100 EPS INSULATION
 • 63 POLY ISO INSULATION
 • 63 CONCRETE WYTHE
- E3) (ALUMINUM COMPOSITE WALL) TH - 397mm
 • 50 ALUMINUM COMPOSITE PANEL
 • 38 ADJUSTABLE Z-BARS @ VERTICAL JOINTS
 • 152 ADJUSTABLE Z-BARS @ 600 o.c.
 • 150 RIGID INSULATION
 • AIR/VAPOUR BARRIER
 • 16 EXTERIOR SHEATHING
 • 152 STEEL STUDS @ 600 O.C.
 • 16 TYPE X GYPSUM BOARD
 • FINISH - SEE ROOM FINISH SCHEDULE

INTERIOR WALL TYPES:

- B1) (NBC WALL TYPE B1a) TH - 140mm FRR - 1 HR (WHEN DESIGNATED) STC - 48
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 140 CONCRETE BLOCK
 • FINISH - SEE ROOM FINISH SCHEDULE
- B2) (NBC WALL TYPE B1b) TH - 190mm FRR - 1.5 HR (WHEN DESIGNATED) STC - 50
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 190 CONCRETE BLOCK
 • FINISH - SEE ROOM FINISH SCHEDULE
- B3) (NBC WALL TYPE B2a) TH - 216mm FRR - 1.5 HR (WHEN DESIGNATED) STC - 47
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 13 TYPE X GYPSUM BOARD
 • 190 CONCRETE BLOCK
 • FINISH - SEE ROOM FINISH SCHEDULE
- A1) (NBC WALL TYPE S4a) TH - 124mm FRR - 1 HR (WHEN DESIGNATED) STC - 48
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 16 TYPE X GYPSUM BOARD
 • 92 STEEL STUDS @ 600 O.C.
 • 88 THICK ABSORPTIVE MATERIAL
 • 16 TYPE X GYPSUM BOARD
 • FINISH - SEE ROOM FINISH SCHEDULE
- A2) (NBC WALL TYPE S7a) TH - 184mm FRR - 1 HR (WHEN DESIGNATED) STC - 51
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 16 TYPE X GYPSUM BOARD
 • 152 STEEL STUDS @ 600 O.C.
 • 150 ABSORPTIVE MATERIAL
 • 16 TYPE X GYPSUM BOARD
 • FINISH - SEE ROOM FINISH SCHEDULE
- A3) (PLUMBING WALL) TH - 168mm FRR - 1 HR (WHEN DESIGNATED) STC - 51
 • FINISH - SEE ROOM FINISH SCHEDULE
 • 16 TYPE X GYPSUM BOARD
 • 152 STEEL STUDS @ 600 O.C.
 • FINISH - SEE ROOM FINISH SCHEDULE

LEGEND:

- FE FIRE EXTINGUISHER
- SH SHOWER
- EWISH EMERGENCY EYEWASH/SHOWER
- UF UPRIGHT FREEZER (N.I.C.)
- CF CHEST FREEZER (N.I.C.)
- W WASHER (N.I.C.)
- D DRYER (N.I.C.)
- HW HOT WATER TANK
- PC PHOTOCOPIER (N.I.C.)



1 MAIN FLOOR REFLECTED CEILING PLAN
A3.1 SCALE: 1:150

KEYNOTES

- 1 STL. BEAM - REFER TO STRUCT.
- 2 OWSJ - REFER TO STRUCT.
- 3 ACOUSTICAL CEILING TILE - REFER TO SPEC.
- 4 WOOD COMPOSITE PANEL SOFFIT - REFER TO SPEC.
- 5 OPEN TO STRUCTURE ABOVE
- 6 GYPSUM BOARD CEILING (PTD)
- 7 MTL. DECKING (PTD) - REFER TO SPEC.
- 8 ROOF ACCESS HATCH - REFER TO SPEC.

LEGEND:

- ACCOUSTIC CEILING TILE
- GYPSUM BOARD CEILING
- DOOR HEADER
- 2 HOUR FIRE RATING
- 1 HOUR FIRE RATING
- CEILING HEIGHTS

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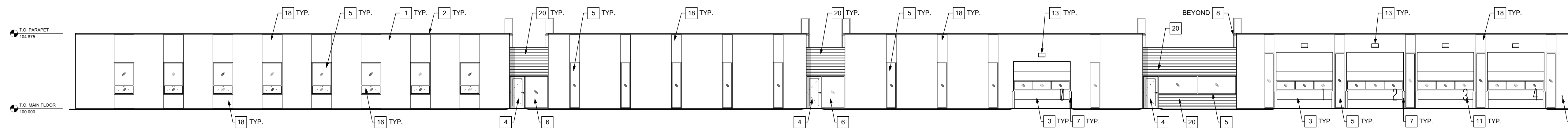
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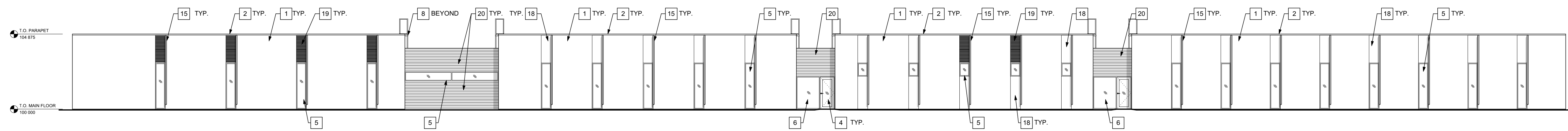
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MAIN FLOOR
REFLECTED CEILING PLAN

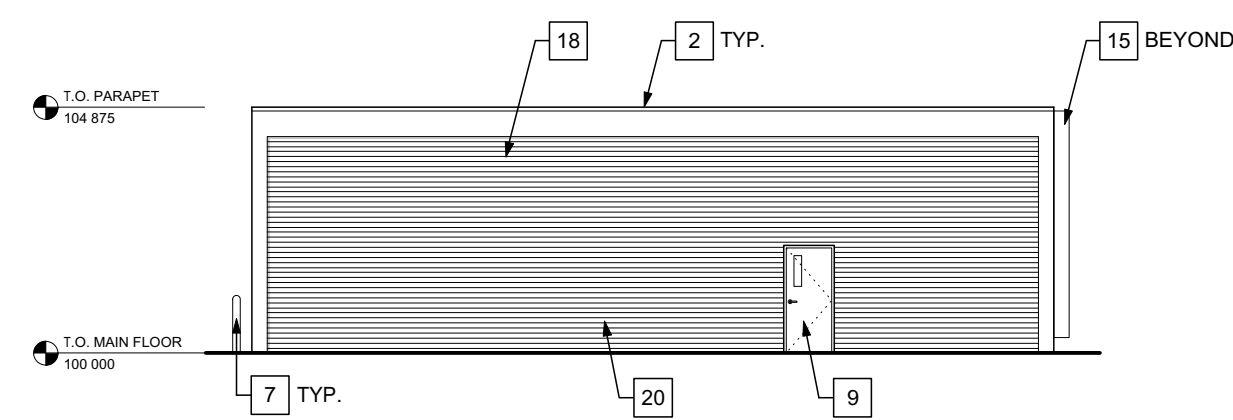
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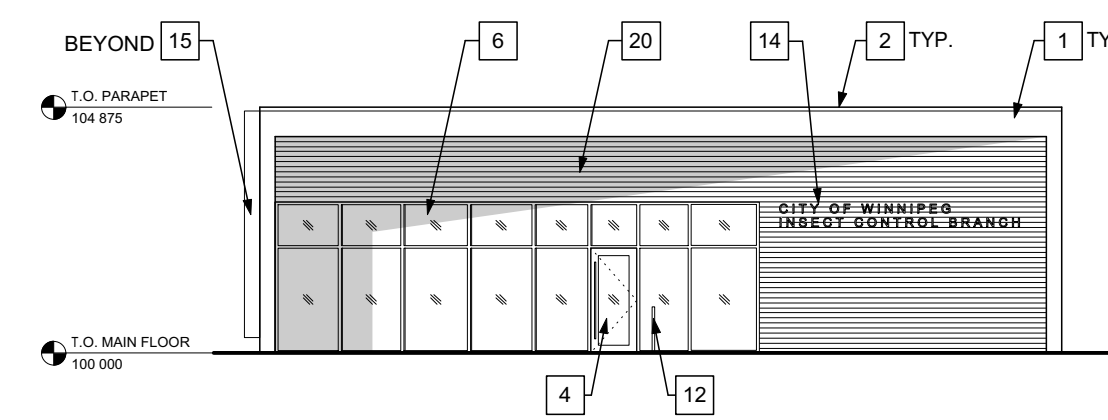
1 EAST ELEVATION
A3.1 SCALE: 1:150



2 WEST ELEVATION
A3.1 SCALE: 1:150



3 NORTH ELEVATION
A3.1 SCALE: 1:150



4 SOUTH ELEVATION
A3.1 SCALE: 1:150

ELEVATION KEYNOTES

- 1 PRECAST CONC. PANEL - REFER TO SPEC.
- 2 PREFINISHED METAL PARAPET CAP
- 3 OVERHEAD GARAGE DOOR - REFER TO SPEC.
- 4 ALUMINUM DOOR, REFER TO SPEC
- 5 ALUMINUM FRAMED WINDOWS - REFER TO SPEC.
- 6 ALUMINUM STOREFRONT GLAZING - REFER TO SPEC.
- 7 150mm DIA CONCRETE FILLED STEEL BOLLARD (PTD.)
- 8 METAL LADDER IN CONFORMANCE WITH ANSI A14.3 SAFETY REQUIREMENTS FOR FIXED LADDERS. SHOP GALVANIZED FINISH.
- 9 HOLLOW MTL. DOOR (PTD.) - REFER TO SPEC.
- 10 WOOD COMPOSITE PANEL - REFER TO SPEC.
- 11 PAINTED OVERHEAD DOOR NUMBER
- 12 ALUM. GUARDRAIL - REFER TO SPEC.
- 13 WALL MOUNTED LIGHT FIXTURE CENTERED ON DOOR - REFER TO SPEC.
- 14 BUILDING SIGNAGE - N.I.C.
- 15 STAINLESS STL. FIN - REFER TO SPEC.
- 16 ALUMINUM FRAMED OPERABLE WINDOWS - REFER TO SPEC.
- 17 WATER FILL STATION C/W BACKFLOW PREVENTOR
- 18 ALUMINUM COMPOSITE PANEL - REFER TO SPEC.
- 19 MECH. LOUVRE - REFER TO SPEC.
- 20 CORRUGATED MTL. PANEL - REFER TO SPEC.

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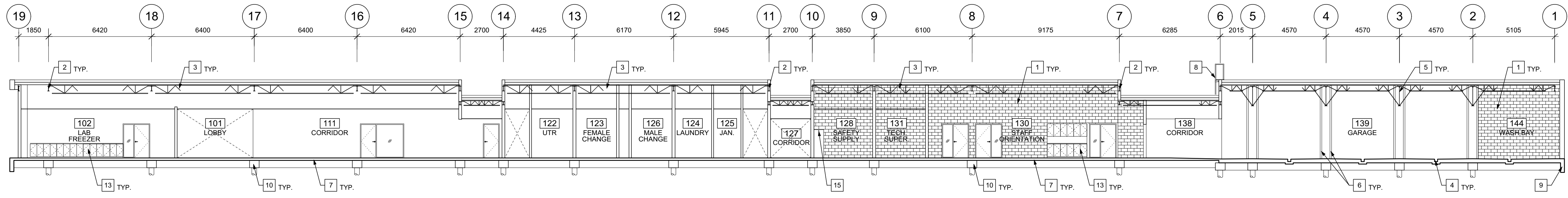
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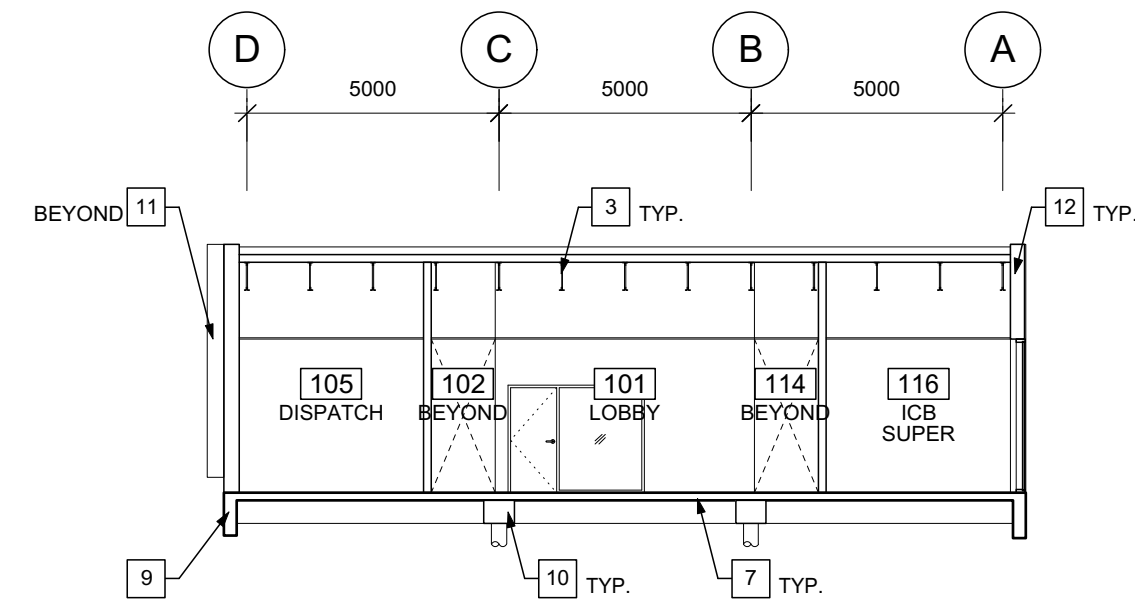
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ELEVATIONS

Project No. 1533B
Date AUG 22, 2016

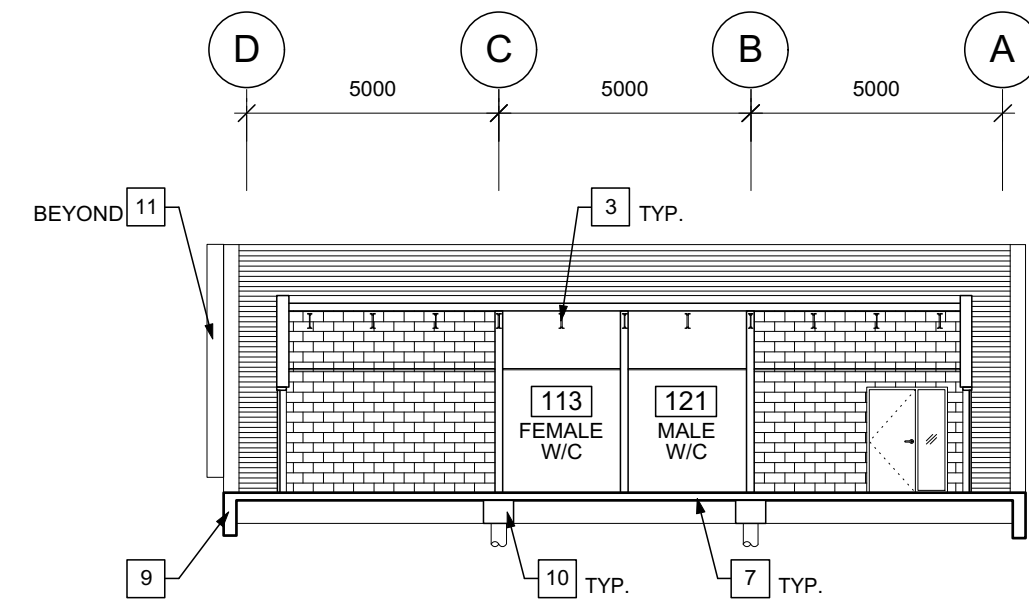
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1 BUILDING SECTION
A3.2 SCALE: 1:150



2 BUILDING SECTION
A3.2 SCALE: 1:150



3 BUILDING SECTION
A3.2 SCALE: 1:150

SECTION KEYNOTES

- 1 CONC. BLOCK WALL - REFER TO STRUCT.
- 2 STEEL BEAM (PTD) - REFER TO STRUCT.
- 3 OWSJ (PTD) - REFER TO STRUCT.
- 4 TRENCH DRAIN - REFER TO STRUCT. & MECH.
- 5 JOIST GIRDER - REFER TO STRUCT.
- 6 STEEL COLUMN (PTD) - REFER TO STRUCT.
- 7 CONC. SLAB - REFER TO STRUCT.
- 8 METAL LADDER IN CONFORMANCE WITH ANSI A14.3 SAFETY REQUIREMENTS FOR FIXED LADDERS. SHOP GALVANIZED FINISH.
- 9 CONC. GRADE BEAM - REFER TO STRUCT.
- 10 CONC. PILASTER - REFER TO STRUCT.
- 11 STAINLESS STEEL FIN - REFER TO SPEC.
- 12 PRE-CAST CONC. PANELS - REFER TO SPEC.
- 13 MILLWORK - REFER TO SPEC.
- 14 CORRUGATED MTL. CLADDING - REFER TO SPEC.
- 15 ROD AND SHELF - REFER TO SPEC.
- 16 NOT USED

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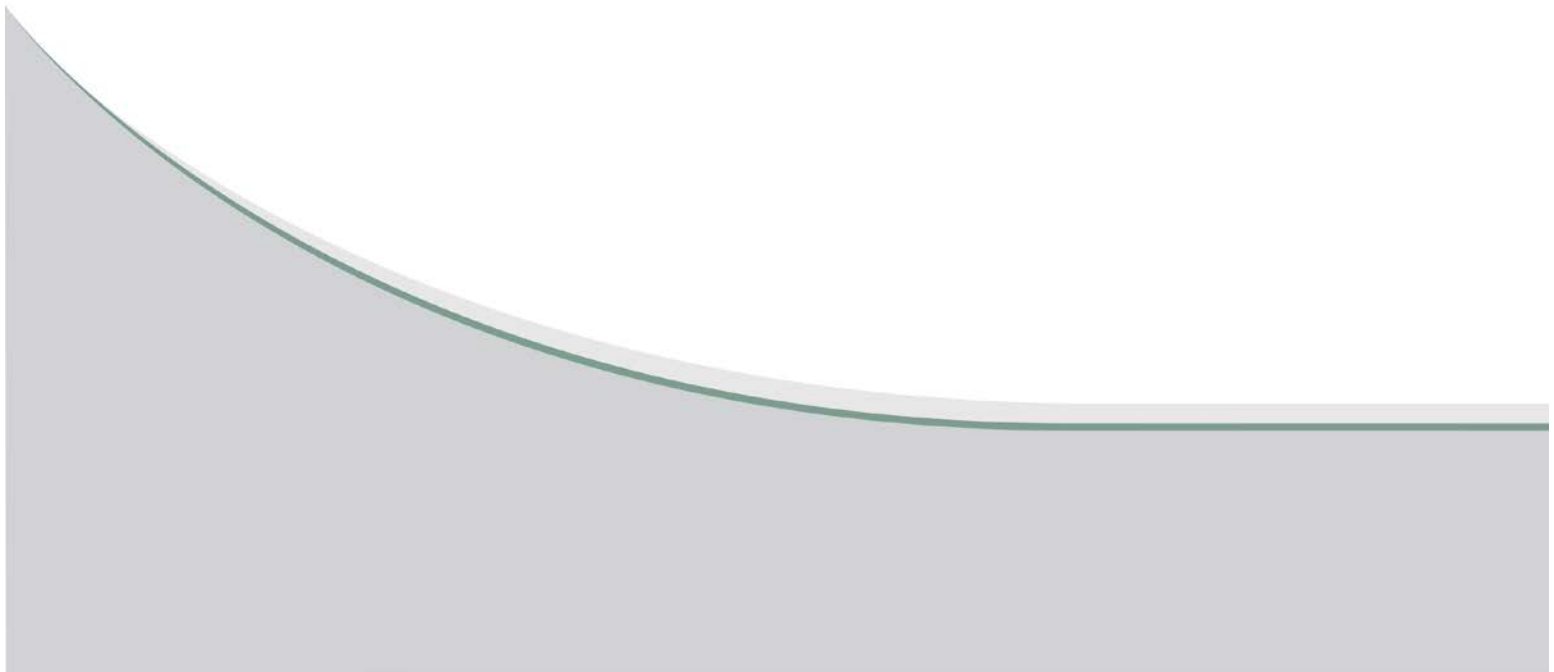
BUILDING SECTIONS

Project No. 1533B
Date AUG 22, 2016

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APPENDIX B

MANITOBA SUSTAINABLE DEVELOPMENT INFORMATION BULLETINS



Information Bulletin
Recommendations For Pesticide Storage Facilities

- (a) all building materials, standards and construction requirements should conform to National and Manitoba Building Codes. The facility should be dry, heated and insulated to protect liquid pesticides;
- (b) every pesticide storage facility or area should have a reinforced concrete floor, finished to render it impervious, or constructed of other impervious materials;
- (c) no floor drains should be in a pesticide storage facility and retention curbing with a minimum height of 10 cm should be constructed around the perimeter of the storage;
- (d) the pesticide storage area should be isolated from adjoining work areas by separation walls;
- (e) every pesticide storage facility should be secured to control unauthorized access;
- (f) every pesticide storage facility should not have windows and should be ventilated to the outside;
- (g) the ventilation system for pesticide storage buildings should meet requirements and conditions as may be required by Manitoba Labor;
- (h) all storage racks or shelves should be constructed of non-combustible materials which is easily cleaned and fire extinguishers suitable for extinguishing A, B & C type of fires should be placed strategically around the facility;
- (i) protective clothing including gloves, head covering, coveralls, boots, goggles, and respirators should be available on site and should be free from pesticide contamination in addition to eye wash or showers;
- (j) pesticides should be stored in their original labeled containers according to manufacturers label storage requirements and should be stored on pallets or shelves above the floor;
- (k) herbicides, insecticides, and fungicides should be segregated from each other in the storage facility to prevent cross-contamination;
- (l) sufficient absorbent material such as activated charcoal or other chemical absorbents should be available on the premises and spills should be cleaned up immediately;
- (m) placards should be posted at the entrance of the pesticide storage facility warning of contents within and contact phone number for facility manager in case of emergency;
- (n) emergency phone numbers should also include fire, police, poison control centre, hospital, ambulance, emergency measures organization and environmental spill reporting;
- (o) pesticides shall not be stored with food or feed.

Information Bulletin - Supplementary Pesticide Disposal & Empty Container Guidelines



THE INFORMATION PRESENTED BELOW IS TO PROVIDE INFORMATION ON THE PROPER DISPOSAL OF PESTICIDES AND PESTICIDE CONTAINERS IN THE PROVINCE OF MANITOBA.

DOMESTIC PESTICIDE WASTE & CONTAINER MANAGEMENT

Containers with unused pesticides, and/or empty containers in Manitoba can be recycled through the Household Hazardous Waste (HHW) Disposal program in the City of Winnipeg.

Location: Miller Environmental Corporation
1803 Hekla Avenue
Phone: (204) 925-9615

Open from 9 a.m. - 4 p.m. on the first and last Saturday of each month from April to September.
Open from 9 a.m. - 4 p.m. on the first Saturday of each month from October to March.

In addition, Green Manitoba offers an appointment system to book a drop-off time for Wednesdays and Thursdays. For telephone bookings, call Miller Environmental at 925-9600.

In rural areas, the **HHW spring collection events** will take place from 10:00am-2:00pm, contact Green Manitoba.

For more information:
City of Winnipeg HHW Program
<http://www.winnipeg.ca/>
Phone: 311

Green Manitoba
<http://www.greenmanitoba.ca/>
Phone: (204) 945-3268
Toll Free (in Manitoba): 1-866-460-3118

COMMERCIAL/RESTRICTED PESTICIDES

Empty triple rinsed containers in Manitoba can be taken to municipal pesticide container collection sites or returned to certified Agrichemical Warehousing Standards Association (AWSA) sites.

For more information:
Contact Your Local Municipality
Or; Pesticide Dealer (AWSA certified)

Unused, obsolete or unregistered pesticides should be disposed of by a licensed hazardous waste handling facility.

CropLife Canada in partnership with the Government of Manitoba has jointly sponsored the CleanFarms program in Manitoba (2008 being most recent). The CleanFarms program allows producers to dispose of any unwanted or obsolete pesticide products free of charge.

For more information:
CropLife Canada
www.croplife.ca

OVERSIZED PESTICIDE CONTAINERS

Pesticide containers which are oversized (over 23 litres) that are not accepted at the local municipal collection sites can be returned to where the product was purchased that has Agrichemical Warehousing Standards Association certification (AWSA).

****REMEMBER WHEN RETURNING EMPTY CONTAINERS...**

Empty, triple rinse, remove lids and label booklets!

APPENDIX C

CHEMICAL HANDLING PROTOCOL, SAFE WORK PROCEDURES AND SPILL RESPONSE SAFE WORK PRACTICE



Chemical and Biological Substances Protocol

AUTHORITY FOR PROTOCOL: Director of Corporate Support Services

LAST UPDATED: January, 2013

Protocol

CHEMICAL AND BIOLOGICAL SUBSTANCES SHALL BE USED, HANDLED, STORED AND DISPOSED OF IN A SAFE MANNER AS TO REDUCE THE RISK OF HARMFUL EXPOSURE.

A. PURPOSE OF PROTOCOL

- Protect the safety and health of employees working with and in the area of chemical and biological substances.
- Ensure compliance with the Manitoba Workplace Safety and Health Act & Regulations.
- Establish requirements for assessment and control of chemical and biological hazards.

B. KEY CONCEPTS

- The safety risk of chemical and biological substances in the workplace is directly related to the hazards associated with the substance and how it is used.
- Assessing the hazards and implementing appropriate control measures, including safe work procedures, will reduce the risk of harmful exposure.

C. CHEMICAL AND BIOLOGICAL SUBSTANCE DEFINITIONS

Biological Substance means a substance containing living organisms or parts of living organisms in their natural or modified forms.

Chemical Substance means any natural or artificial substance, whether in the form of a solid, liquid, gas or vapour (including mists and fumes), other than a biological substance.

Hazard Control Measure means steps taken to reduce the risk of harmful exposure. These may include substitution of materials, work practice controls, engineering controls or the use of personal protective equipment.

Exposure means entrance of a chemical or biological substance into the human body through inhalation, ingestion, injection, skin or mucosal contact, absorption or other route of entry.

Material Safety Data Sheet (MSDS) means a written document prepared by the supplier or manufacturer of a product, which outlines product safety information and procedures.

Workplace Hazardous Materials Information System (WHMIS) means system designed to provide information about chemical and biological substances used in the workplace as outlined in Part 35 of the Manitoba Workplace Safety and Health Regulation (MR 217/06).

D. PROCEDURES

1. MSDS

- Are made available to employees online in the [City of Winnipeg MSDS Access System](#).
- Will be available in hardcopy in workplaces where internet access is unavailable.

2. RISK ASSESSMENTS

- Must be conducted by supervisors to assess the safety and health risk associated chemical and biological substances in consultation with:
 - employees
 - the safety and health committee
 - departmental safety resources (as required)
- Will consider the use, handling, storage and disposal of chemical and biological substances, as well as the potential for uncontrolled releases or spills.
- Must be consistent with information provided on the MSDS and documented using the [Site Specific Risk Assessment and Control Worksheet](#).
- Will be developed or updated when any of the following create or may create a safety and health risk:
 - new information regarding a substance.
 - new products or procedures introduced to the workplace.
 - changes to the conditions of the workplace.
 - changes to the health or physical condition of an employee (that are known).
- Further information on how to assess the safety risk of chemical and biological substances can be found in the [Chemical and Biological Safety Guide](#).

3. HAZARD CONTROL MEASURES

- Must be implemented when a safety or health risk associated with a chemical and/or biological substance has been identified.
- Must eliminate or reduce the safety or health risk to an appropriate level, consistent with regulatory requirements.

4. SAFE WORK PROCEDURES

- Must be developed in writing and implemented in all circumstances where a safety or health risk associated with a chemical and/or biological substance exists or may exist to include:
 - procedures for the safe use, handling and storage of substances.
 - how to safely dispose of substances.
 - use of hazard control measures such as personal protective or other equipment and its limitations.
 - procedures for safely responding to uncontrolled releases or spills.
- Must be made available to employees and the safety and health committee.
- Must be revised at least every three years or sooner if circumstances change to create safety risk.

5. TRAINING

- All employees who work with or near chemical and/or biological substances must be instructed on:
 - hazards associated with the substances
 - Workplace Hazardous Materials Information System (WHMIS)
 - how to access MSDS
 - safe work procedures

6. UNCONTROLLED RELEASES OR SPILLS

- Such events that caused or could have caused harm or damage will be immediately reported and investigated according to the [Workplace Safety Incident Protocol](#).

E. KEY ROLES AND RESPONSIBILITIES

Chief Administrative Officer (CAO)

- Officially endorses the Chemical and Biological Substances Protocol.

Chief Operating Officer (COO)

- Ensure compliance with this protocol by holding departments accountable.
- Direct or approve the implementation of necessary changes to this protocol.

Director of Corporate Support Services (CSS)

- Recommend updates/changes to this protocol.

Department Heads

- Ensure employees receive appropriate training and resources to comply with this protocol.
- Hold managers, supervisors and employees accountable for assessing the risk associated with chemical or biological substances and implementing control measures including safe work procedures.

Supervisors

- Recognize and assess chemical and biological hazards in consultation with employees and safety and health committees.
- Identify and implement appropriate control measures for chemical and biological hazards including safe work procedures.
- Make safe work procedures available to employees and the safety and health committee.
- Ensure that employees are provided with the required equipment and training to work safely.
- Ensure MSDS are readily accessible to safety and health committee members and employees who work with or near chemical and/or biological substances.
- Ensure employees comply with the Chemical and Biological Substances Protocol and safe work procedures.

Workplace Safety and Health Committees

- Assist supervisors and employees in recognizing chemical and biological hazards, conducting assessments and implementing control measures including safe work procedures.
- Review and recommend chemical and biological safety training.

Departmental Safety Resource Staff

- Assist supervisors and safety and health committees in recognizing chemical and biological hazards, conducting assessments and implementing control measures including safe work procedures.
- Recommend corrective actions to prevent safety incidents.
- Provide support/consultation to supervisors as requested.

Wellness and Diversity Branch (Occupational Health Staff of CSS)

- Respond to employee chemical and biological health concerns.
- Develop and implement health surveillance programs as required.

Organizational Safety and Occupational Hygiene Branch (of CSS)

- Provide consultation to the departments regarding chemical and/or biological hazards and control measures.
- Provide occupational hygiene support and expertise to the organization.
- Coordinate and maintain the MSDS Access System.
- Research, develop and recommend city-wide systems and programs to enhance chemical and biological safety.

Employees

- Notify their supervisor of chemical and biological hazards.
- Recommend hazard control measures including safe work procedures to eliminate or minimize chemical and biological safety risks.
- Follow the Chemical and Biological Substances Protocol and established safe work procedures.
- Immediately report workplace safety incidents to their supervisor.
- Make recommendations to their supervisors to prevent chemical and biological safety incidents.
- Participate in WHMIS and other training as required.
- Obtain, review and apply WHMIS information.

F. REFERENCES AND LINKS TO RELATED PROCEDURES

- [City of Winnipeg Organizational Safety Governance](#)
- [Organizational Safety Code of Practice](#)
- [Workplace Safety Inspection Protocol](#)
- [Workplace Safety Incident Protocol](#)
- [Chemical and Biological Safety Guide](#)
- [Site Specific Risk Assessment and Control Worksheet](#)
- [City of Winnipeg MSDS Access System](#)

G. AMENDMENTS

Replaces *Chemical Products Code of Practice, 2004*

H. REVIEW PROCESS

The Director of Corporate Support Services is accountable for implementing and reviewing this Protocol. The Chief Administrative Officer approves amendments to this Protocol.

I. KEY CONTACTS

Coordinator of Organizational Safety and Occupational Hygiene
Manager of Human Resource Planning and Services Division
Director of Corporate Support Services

UNCONTROLLED SPILLS OR THE RELEASE OF HAZARDOUS SUBSTANCES ARE SERIOUS INCIDENTS



They must be reported to your Direct Supervisor and the Public Works Safety Branch **IMMEDIATELY.**

Environmental damage can result from seemingly small spills of hazardous products. The Safety Branch must report these incidents to Provincial Environment Officers immediately.

Consider the following examples:

- ***Gasoline or Diesel Fuel***
spills of 100 litres or more must be reported immediately.
- ***Corrosives (Battery Acid, Sodium Hypochlorite, etc.)***
spills of 5 litres or more must be reported immediately.

If you've had a spill or release contact your Direct Supervisor immediately, and your Direct Supervisor will contact the Safety Branch.

SPILL CONTROL KITS are available for tasks involving hazardous materials. Ensure you have one immediately available. For additional information contact your Direct Supervisor or the Public Works Safety Branch.



Safety Technician 470-4775

Safety Technician 794-4388

Safety Coordinator 794-4903



Water and Waste Department

SAFE WORK PROCEDURE

ESD-15

CHEMICAL TRANSPORTATION AND STORAGE

| | | | | |
|---|---|---|--|-------------------------------|
| Facility: Analytical Services | Written By: J. Jones R. Rockwell | Approved By: R. Grosselle (Mgt Co-chair) | Date Created: November 2009 | Date of Last Revision: |
|---|---|---|--|-------------------------------|

| | | |
|---|---|---|
| Hazards Present <ul style="list-style-type: none"> • burns • fumes/odours from chemicals • cuts from damaged glassware • tripping • chemical spilling | Personal Protective Equipment (PPE) or Devices Required <ul style="list-style-type: none"> • safety glasses • lab coat • gloves • closed toed shoes • face shield • requirements on chemical reagent container (fume hood) | Additional Training Requirements: <ul style="list-style-type: none"> • chemical handling techniques |
|---|---|---|

Safe Work Procedure – Chemical Transportation and Storage

1. Put on personal protective equipment
2. Collect all materials needed for the task
3. Conduct a visual check of all materials. Do not use any cracked or broken equipment
4. Place chemical in appropriate transport container. Ensure container is okay for transport
5. Transport chemical to appropriate location for use
6. Use chemical following SWP 11 – Chemical Preparation and Handling
7. Prepare chemical for transportation – ensure lid is secure and there is no chemical residue on the container
8. Place chemical back into transport container
9. Transport chemical to storage location
10. Place chemical in appropriate storage area (i.e. in fridge, acid cabinet, solvent cabinet, etc.)
11. Remove personal protective equipment

If an accident occurs

- Report the incident to your supervisor
- If there is an equipment malfunction, report to your supervisor.

**Guidance Documents/
Standards / Applicable
Legislation / Other:**

Guidance Documents:

- Laboratory Safety Manual
- Safe Work Procedure ESD 11-
Chemical Preparation and
Handling

**Manitoba Workplace Safety and
Health Regulation,**

M.R. 217/2006:

- 2.1 Safe Work Procedures
- Part 6 – PPE
- Part 36 – Chemical and
Biological Substances

Supervisor Responsibility

- provide all staff with proper equipment, training and tools
- ensure that all safe work practices are followed
- offer refresher training as new employees are hired
- review procedure any time the task, equipment, or materials change, or at a minimum every three years
- ensure a first aid kit is on site
- ensure employees have First Aid (CPR) training and renew their training every three years

Worker Responsibility

- follow Safe Work Procedure
- wear appropriate personal protective equipment
- report any hazardous situations to your supervisor

| | | | | |
|--|--|--|--|--|
| JOB SAFETY ANALYSIS JSA No. 0004 REV No. 00 | JOB TITLE FLAMMABLE & COMBUSTIBLE LIQUID SPILL RESPONSE | | RELEASE: 16-Dec-2003 | REV. DATE: 16-Dec-2003 |
| | COMPANY/ORGANIZATION City of Winnipeg Transit | | JOB CLASSIFICATION All | ANALYSIS BY: Tim VanDekerkhove |
| REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT AND MATERIALS Fire extinguisher - Fire blanket - Absorbent materials - Rags/towels or similar wipes - Waste containers Non-sparking shovel - Splash shields or goggles – Neoprene Gauntlet gloves Explosion proof lighting - Portable fan | | | REVIEWED BY: Jim Northcliffe | |
| | | | APPROVED BY: Cam Snider | |
| SEQUENCE OF BASIC JOB STEPS | POTENTIAL HAZARDS | RECOMMENDED ACTION OR PROCEDURE | | |
| 1. When a large quantity (greater than 100 litres) is spilled OUTDOORS | 1. Spill may be too large to personally contain, or person insufficiently trained to contain | 1. A. Contact CONTROL CENTRE at 986-5788, who will call 911 B. Secure the area from people. | | |
| 2. When a large quantity (greater than 100 litres) is spilled INDOORS | 2. Spill may create flammable or combustible vapour that could be ignited, and/or create slip hazard | 2. A. Activate the fire alarm system B. Contact CONTROL CENTRE at 986-5788 who will call 911 C. Notify Fire Warden of source of problem D. Large spills should be picked up by a fuel transfer pump or vacuum truck, by personnel familiar with fuel transfer precautions | | |
| 3. When a small spill, less than 100 litres, is spilled either INDOORS or OUTDOORS - continued - | 3. Spill may create flammable or combustible vapour that could be ignited, and/or create slip hazard | 3. A. Immediately warn others in the area of the spill B. Control sources of ignition C. Notify supervisor that a leak has occurred D. Vapours heavier than air tend to accumulate in low places, therefore ventilate the area with a portable fan . E. Use rubber or neoprene gauntlet gloves, and face/eye protection where the risk of splashing is present F. Attempt to stop further flow of liquid, if possible, with Tank Patch in the case of a ruptured tank, or close valves in the case of piping leak G. Contain the spill with appropriate spill control equipment H. Keep liquid from flowing into storm and sanitary sewers by placing absorbent material around drains. | | |

| JOB SAFETY ANALYSIS JSA No. 0004 REV No. 00 | JOB TITLE FLAMMABLE & COMBUSTIBLE LIQUID SPILL RESPONSE | | RELEASE: 16-Dec-2003 | REV. DATE: 16-Dec-2003 |
|---|--|---|--|----------------------------------|
| SEQUENCE OF BASIC JOB STEPS | | POTENTIAL HAZARDS | RECOMMENDED ACTION OR PROCEDURE | |
| 3. When a small spill, less than 100 litres, is spilled either INDOORS or OUTDOORS - continued - | 3. | I. Cover the contaminated area with granular absorbent, mixing well until no standing liquid remains. Loose absorbent should be distributed over entire spill area, working from the outside and circling to the center to reduce splashing or spreading of spilled liquid. J. Scoop the mixture into a metal drum with a lid on top. 3. K. Wash the contaminated area(s), wipe up and dispose of contaminated wipes. L. Diesel fuel or oil can stay inside the building until the drum is filled. <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">IMPORTANT</div> M. Gasoline soaked material must go outside immediately. | | |
| 4. Allow diesel-absorbent mixture to sit outdoors for a minimum of 24 hours before disposing to landfill. | 4. | 4. | | |

SAFE WORK PRACTICE

Spill Response

If you require additional information, or clarification, please speak with your immediate supervisor or contact the Public Works Safety Branch, 108 – 1155 Pacific Avenue, 204-986 – 3122

Date Developed: November 22, 2012

Date of Revisions: January 12, 2017

| Hazards Present: | Personal Protective Equipment (PPE): | Additional Training Requirements: |
|---|---|--|
| <ul style="list-style-type: none"> · Sprains/Strains · Eye injuries / absorption · Slips / Trips / Falls · Explosion · Skin Irritation / Burns / Absorption · Chemical Inhalation · Fires · Environmental Release | <ul style="list-style-type: none"> · Safety Footwear / Rubber boots · Nitrile rubber gloves / gloves · Eye protection · Coveralls · Respirator | <ul style="list-style-type: none"> · Pesticide Applicator's License - CORE WHMIS · Safety Footwear · Hand Protection · Safety Eyewear · Safe Lifting · Slips, Trips & Falls · WHMIS |

GENERAL

SWP_PW_POS_ICB_Spill Response_01_28_2013

APPLICATION

This safe work procedure is intended to provide a general overview of the clean up procedures for pesticide / chemical spills, the required personal protective equipment, training requirements, and hazards present. For more info refer to the Job Hazard Analysis.

PROTECTIVE MEASURES / REQUIRED STEPS, etc.

1. Immediately alert area occupants and supervisor 986-4869, and evacuate and secure the area, if necessary.
2. Wear personal protective equipment, as appropriate to the hazards. Refer to the Material Safety Data Sheet or other references for information.
3. Using the chart below, determine the extent and type of spill. If the spill is large, if there has been a release to the environment or if there is no one knowledgeable about spill clean-up available, contact Manitoba Conservation at 204-944-4888 or 204-945-4888

| Category | Size | Response | Treatment Materials |
|---------------|--------------------|----------------------------------|--|
| Small | up to 300cc | chemical treatment or absorption | neutralization or absorption spill kit |
| Medium | 300 cc - 5 liters | absorption | absorption spill kit |
| Large | more than 5 liters | call public safety | outside help |

4. If a volatile, flammable material is spilled, immediately warn everyone, control sources of ignition and ventilate the area.
5. If there is a fire or medical attention is needed, contact Public Safety at 911.
6. Attend to any people who may be contaminated. Contaminated clothing must be removed immediately and the skin flushed with water for no less than fifteen minutes. Clothing must be laundered before reuse.
7. Contact maintenance staff if the large spill control kit is needed.

SAFE WORK PRACTICE

8. Consider the need for respiratory protection. The use of a respirator or self-contained breathing apparatus requires specialized training and medical surveillance. Never enter a contaminated atmosphere without protection or use a respirator without training. If respiratory protection is needed and no trained personnel are available, call Public Safety at 911. If respiratory protection is used, be sure there is another person outside the spill area in communication, in case of an emergency. If no one is available, contact Public Safety.
9. Protect floor drains or other means for environmental release. Spill socks and absorbents may be placed around drains, or sewers as needed.
10. Contain and clean-up the spill according to the table above.
Loose spill control materials should be distributed over the entire spill area, working from the outside, circling to the inside. This reduces the chance of splash or spread of the spilled chemical. Many neutralizers for acids or bases have a color change indicator to show when neutralization is complete.
11. When spilled materials have been absorbed, use brush and scoop to place materials in an appropriate container. Polyethylene bags may be used for small spills. Five gallon pails or 20 gallon drums with polyethylene liners may be appropriate for larger quantities.
12. Complete a hazardous waste sticker, identifying the material as Spill Debris involving XYZ Chemical, and affix onto the container. Spill control materials will probably need to be disposed of as hazardous waste. Contact The Safety Branch (986- 9600) or your immediate supervisor to contact Enviro West Inc. or Miller Environmental Corporation for hazardous waste pickup.
13. Decontaminate the surface where the spill occurred using a mild detergent and water, when appropriate.
14. Report all spills to your supervisor immediately.
15. Wash all personal protective equipment

SUPERVISOR RESPONSIBILITY

The supervisor will ensure that all workers required to perform this task are trained on the existing or potential hazards that may arise during the course of work and the appropriate procedures required mitigating those hazards. The supervisor will ensure that all workers are following all prescribed rules to keep themselves and other workers at the job site safe to the best of their ability and ensure that all workers are wearing the required personal protective equipment.

WORKER RESPONSIBILITY

All workers will participate in the training required to keep informed of all hazards and risks, existing or potential, which may arise during the course of work. Workers will ensure that they are following all safety rules in order to protect their own safety and health, as well as, the safety and health of other workers on the job site. All workers will wear the prescribed personal protective equipment required for each task performed while on the job site.

Other Information Sources (i.e. Standards/Applicable Legislation)

The Manitoba Workplace Safety and Health Act W210
The Manitoba Workplace Safety and Health Regulations 217/2006
2.1 Safe Work Procedures
5 First Aid
6 Personal Protective Equipment
7 Storage of Materials, Equipment, Machines and Tools
8 Musculoskeletal Injuries

This Safe Work Procedure will be reviewed any time the task, equipment, or materials change and at a minimum every three years

SAFE WORK PRACTICE

Management Co-Chair

Worker Co-Chair

APPENDIX D
CHEMICAL AND BIOLOGICAL SUBSTANCES LIST

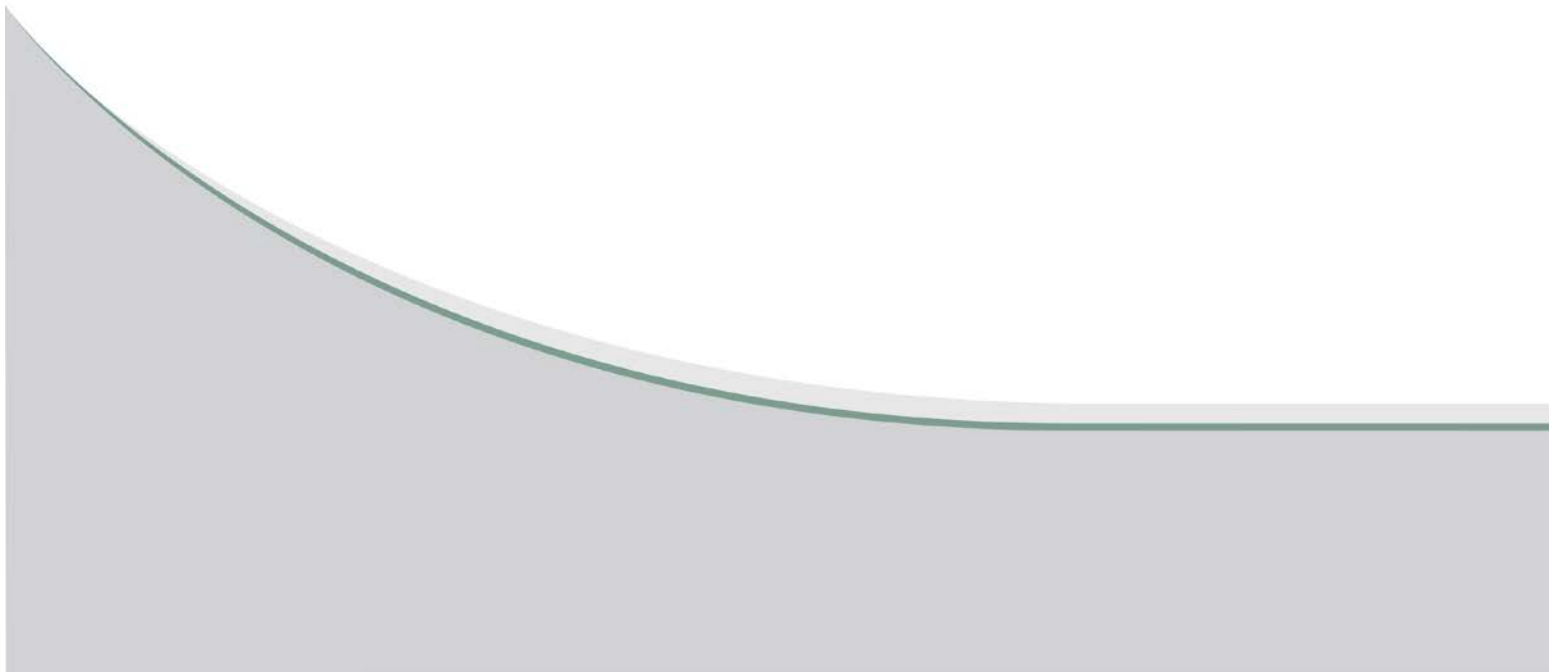
**THE CITY OF WINNIPEG
INSECT CONTROL BRANCH**

620 Tyne Ave.

INSECTICIDE STORED ON PROPERTY`

| INSECTICIDE NAME | ACTIVE INGREDIENT | AMOUNT IN STORAGE AS OF September,1, 2017 | STORAGE LOCATION 620 TYNE AVE. |
|-------------------------------|--------------------------|--|---|
| Vectobac 200G | Bacillus thuringiensis | 33'593.6 kg. | Building B |
| Vectolex ® CG | Bacillus Sphaericus | 0 kg | Building B |
| Altosid Granules | Methoprene | 58'104.0 kg | Building B |
| Prestrike Altosid Granules | Methoprene | 1,481.0 Kg | Building B |
| Maxforce | Hydramethylnon | 0 grams | Building B |
| Foray 48B (Old) | Bacillus thuringiensis | 1,400.0 Lt's | Building B |
| Foray 48B (New) | Bacillus thuringiensis | 500.0 Lt's | Building B |
| Drione® | Pyrrhtrins | 0 Kg | Building B |
| Vectobac 1200L New | Bacillus thuringiensis | .0 Lt's | Building B |
| Vectobac 1200 L | Bacillus thuringiensis | .0 Lt's | Building B |
| Metalarv | Methoprene | 346.9kg | Building B |
| Altosid XR Briquets | Methoprene | 542.9KG | Building B |
| Permanone®Multi-Purpose 10%EC | Permethrin | 1'440.0Lt's | Building B |
| | | | Building B |
| | | | Building B |
| | | | Building B |
| | | | Building B |

APPENDIX E
MAINTENANCE AND CLEANING CHEMICALS



Inventory List By Location with Quantities

City of Winnipeg - Public Works Dept (8049) > Parks and Open Spaces Division (8063) > Insect Control Branch > 3 Grey Street (CWIN5) > Maintenance and all sub-locations

| Location | | | | | |
|---|---|-------------|----------|------|-----|
| Manufacturer | Product Name | Part # | Quantity | Size | UOM |
| PUBLIC WORKS DEPT (8049) > PARKS AND OPEN SPACES DIVISION (8063) > INSECT CONTROL BRANCH > 3 GREY STREET (CWIN5) > MAINTENANCE | | | | | |
| 3M General Office | 3M Fastbond Contact Adhesive 30-NF Green | | | | |
| Air Liquide Canada Inc | Oxygen | | | | |
| Amrep Inc. | Misty Dry Moly Lubricant | | | | |
| Amsoil Inc. | Synthetic European Motor Oil, Sae 5W-40 | | | | |
| Anderol Co.- part of Chemtura Corporation | Anderol 471 | | | | |
| Arkema Canada | Anderol 786 | | | | |
| Avmor Ltd. | Soft Hands Lotion Hand Soap | 1183 | | | |
| Becker Microbial Products Inc. | Aquabac XT | | | | |
| Brenntag Canada Inc. | Isopropanol, 60 - 100% | | | | |
| Castrol Canada Inc. | Castrol Super 2-Stroke Motor Oil | 460318-CA01 | | | |
| | Stihl 2T Premium | 464042-CA01 | | | |
| Castrol Industrial North America Inc. | Castrol Power 1 TTS 2T | | | | |
| Certified Labs, Div. of NCH Corp. | Car-Shine | | | | |
| Chevron Lubricants Canada Inc | Havoline Dex-Cool Extended Life Anti-Freeze/Coolant - B | | | | |
| Coastal Blending & Packaging | IDO Premium | | | | |
| Colgate Palmolive Canada | Javex Liquid Bleach | | | | |
| Conoco Phillips | Phillips Type M Aviation 20W-50 | | | | |
| Cortec Corporation | EcoClean Graffiti Remover 433 | | | | |
| CRC Industries | Brakleen (Aerosol) | 75089 | | | |

This report only includes active inventory items.

| | |
|--|---------|
| Brakleen Brake Parts Cleaner | 05089 |
| Brakleen Brake Parts Cleaner - Non-chlorinated (Aerosol) | 75088 |
| Daycon Products Company, Inc. | |
| Renew | 357-2 |
| Diversey Inc. | |
| Pledge Multi-surface Floor Cleaner | |
| Dominion Sure Seal Ltd | |
| Rust Check Dripless | |
| DOW CIG North America | |
| Great Stuff Gaps & Cracks 6 Oz Hc | |
| Drummond Canada | |
| Ogle | |
| DuPont Chemicals | |
| Ful-Base Reducers and SuperFlo 441-20 | |
| Nason Hardeners 483-08 | |
| Esso Petroleum Canada | |
| Teresstic 100 Circulating Oil | |
| Varsol 3139 Solvent | |
| Eureka Chemical Company | |
| Fluid Film Aerosol (AS) | |
| Fisher Scientific | |
| Acetone | A9-4 |
| Xylenes, Mixed Isomers With Ethylbenzene (Flash Point 26.1 C/79 F; PG III) | |
| Flamemaster Corp., Chem Seal Div. | |
| CS-3204 Class A (Part A) | |
| Henkel Consumer Adhesives | |
| Lepage Pres-Tite Green Latex Contact Cement | |
| Henkel Loctite Canada Inc. | |
| 26B Hi Temp RTV 80ml TB/BX | 26B |
| Lepage Pres-Tite Contact Cement | |
| Loctite Powergrab Construction Adhesive | |
| Permatex 18E Radiator Cleaner | |
| ICI Paints USA | |
| Devflex 4206QD Quick Dry Interior/Exterior Waterborne Acrylic Semi-Gloss Enamel 4206 | |
| Ultra-Hide Interior Latex Flat Accent Tint Base | |
| Johnson Diversey | |
| Drano Professional Strength Kitchen Crystals Clog Remover | |
| Johnson Diversey Canada | |
| Sunlight Dishwashing Liquid | 2979769 |
| Vim Ammoniated Cream Cleanser | 4534798 |
| Kleen-Flo Tumbler Industries Ltd. | |
| Brake & Electrical Contact Kleen | 325 |
| Choke & Carb Kleen | |
| Fuel Stabilizer | 790 |

| | |
|---|-------|
| Injector Kleen | 695 |
| Lock De-Icer | 615 |
| Original Gas Line Anti-Freeze | 426 |
| Supreme Fuel Injector Gas Line Anti-Freeze | 418 |
| <hr/> | |
| Lawson Products Inc | |
| Battery Cleaner | |
| Belt Dressing | |
| Citrus Lotion Hand Cleaner w /Pumice | |
| C-Thru Glass Cleaner | |
| Decal Remover | |
| Flush Off | |
| HSP Flat Black | 53365 |
| HSP Gloss Black | |
| HSP Sandable Gray Primer | |
| Kwikut | 82288 |
| LPA III | |
| Moly Coat | |
| Non-Chlorinated Brake Klean | |
| Non-Flammable Penetrating Oil | 86137 |
| Open Gear and Wire Rope Lubricant | |
| Powron Contact Cleaner | |
| Stripper Gasket Remover | 83841 |
| Tefgel | |
| Wire Dryer & Ignition Sealer | |
| <hr/> | |
| Life Automotive Products, Inc. | |
| Smart Blend Limited Slip | |
| <hr/> | |
| Magic American Products, Inc | |
| Goo Gone | GG01 |
| <hr/> | |
| Maxim Chemical International Ltd | |
| Heavy Duty Degreaser 580 | |
| <hr/> | |
| McLaughlin Gormley King Company | |
| PYROCID® Fogging Formula 7067 for ULV Mosquito Adulticiding CANADA | |
| <hr/> | |
| Monsanto Canada | |
| Vision Silviculture Herbicide | |
| <hr/> | |
| Nemco Resources | |
| Nemco Rad Antifreeze & Summer Coolant Nemco Universal Antifreeze | |
| Nemco Windshield Washer Fluid | |
| <hr/> | |
| Newalta Corporation, Industrial Division | |
| AW (Antiwear) Hydraulic Oil | |
| <hr/> | |
| Pennzoil-Quaker State DBA Sopus Products Company | |
| Pennzoil Multi-Grade Motor Oil - All Grades | |
| <hr/> | |
| Permatex Canada | |
| PC Fast Orange Lotion with Pumice 3.78 L | 20861 |
| <hr/> | |
| Permatex USA | |

This report only includes active inventory items.

Sensor-Safe Valve Cover and Oil Pan Oem Rtv .5Oz Tb Cg

Petro-Canada

Hydrex Dt 22, 46
Petro-Canada Atf D3M
Precision Xi 5 Moly Ep0, Ep1, Ep2
Supreme Synthetic 10W-30
Synduro Shb 32, 68, 150, 220, 460

Phoenix Brands LLC

Sunlight Ultra Concentrated Dishwashing Liquid -- Canadian;
Grapefruit Fresh, Cucumber Melon, Apple Sensation, Mango
Papaya and Pink Grapefruit

Power Service Products

Diesel 911

Prairie West Industrial Ltd.

Power Wash

Pro Chem, Inc.

Dri Lub / 1703

Procter & Gamble

Febreze Fabric Refresher - Ready-To-Use (RTU) (Professional)
Mr. Clean Multi-Surfaces Antibacterial Spray (Orange and Lemon
Scents)

Reckitt Benckiser

Lysol Brand III Disinfectant, All Purpose Cleaner, 4 In 1, All
Scents (Trigger) 19200-80313

Recochem Inc.

Paint Thinner 13-324

Rust Oleum Corporation

Rust-Oleum High Performance Industrial Enamel Aerosol -
Inverted Marking Spray

Rust-Oleum Industrial Brands

Tremclad Dark Blue Bulk
Tremclad Grey Primer Bulk 274103
Tremclad R.P. Gloss Black 2632 12 Aero 27026B 512
Tremclad R.p. Gloss White 2592 12 Aero

RW Packaging Ltd.

Goldex Institutional Bleach

Share Corporation Canada Chemical Ltd.

Liquid Microorganisms
Majesty

Shell Canada Products Ltd.

Aeroshell Grease 7
Shell Bronze Gasoline
Shell Jet A-1 142-011

Shell Oil Products

AvJet A

Sherwin Williams

Kromik Metal Primer, Red Oxide
Krylon Primer, Platinum Grey

| | |
|---|--------|
| Rust Tough Rust Fix (Aerosol) | |
| Superacrylic Controls Rust Spray Enamel, Hard Gloss Black | |
| <hr/> | |
| Sherwin-Williams Automotive Finishes | |
| Rust Tough Rust Preventive Enamel (Aerosol), Radiant Red | |
| <hr/> | |
| Sidergas S.R.L. | |
| Carbon Steel Electrode Sidergas S6 | 850001 |
| <hr/> | |
| Sigma Aldrich Fluka Chemical Canada Co. | |
| Sulfuric Acid Acs Reagent | |
| <hr/> | |
| Simple Green World Headquarters/ Sunshine Makers | |
| Extreme Simple Green Aircraft & Precision Cleaner | |
| Simple Green Multi-Purpose Cleaner and Degreaser | 80005 |
| <hr/> | |
| Syngenta Crop Protection | |
| Demon WP | |
| <hr/> | |
| Technical Chemical Company | |
| Johnsens Engine Degreaser | |
| Johnsens Fuel Injector and Carburetor Cleaner | |
| Johnsens Gas Treatment | |
| Johnsens Premium Starting Fluid 50% | |
| <hr/> | |
| The Clorox Company | |
| Original Pine-Sol All Purpose Cleaner | |
| <hr/> | |
| Univar Canada Ltd | |
| Dow Corning Antifoam A Compound | |
| <hr/> | |
| Valent Bio-Sciences Corporation | |
| Vectobac 200G | |
| <hr/> | |
| Van Aken International | |
| TNT Simulant | |
| <hr/> | |
| WD 40 Products Canada Ltd. | |
| WD-40 Aerosol | |
| WD-40 Bulk Liquid | |
| <hr/> | |
| Willamette Valley Co. | |
| Amazing Goop F/E - Automotive F/E, Craft F/E, Household F/E, Lawn & Garden F/E, Marine F/E, Plumbing F/E, RV F/E, Sport & Outdoor F/E, Wood & Furniture F/E | |
| <hr/> | |
| Zep Manufacturing Company | |
| Applaud | |
| <hr/> | |
| Zep Manufacturing Company of Canada | |
| Green Link Bio Bathroom | P831 |
| Meter Mist Mandarin Orange | 3330 |
| Ring Master | 1846 |
| Superbowl | 2309 |
| Sweeping Compound Oil (Green) | 1360 |
| Vinegar | 2248 |
| Zep Acclaim | 0999 |
| Zep Glass Cleaner | 0019 |

TOTALS: Manufacturer(s): 74 Location(s): 1 Catalog Item(s): 137 Inventory Item(s): 137

1539 Waverley : INSECT CONTROL BRANCH : Field Supervisor Area

Chemical and Misc. located by overhead door area:

| | |
|--|--|
| Konk Foam : | 2 boxes (12 cans per box) and 4 cans |
| Konk Aerosol: | 3 boxes (12 cans per box) and 4 cans |
| Konk 409 Aerosol: | 7 cans |
| Konk 499 Spray: | 1 can |
| Pro Aerosol: | 4 cans |
| Raid! Max: | 2 cans |
| Max Force Roach Killer Gel Bait: | 13 tubes |
| Pre-Strike Granular Shakers (methoprene): | 11 boxes (12 shakers per box) and 34 shakers |
| Vectobac: | 1 container (10L) 2 containers (4L each) ~12 L in the large Vectobac container |
| Petro Canada 5W30 Engine oil (1L jug): | 4 |
| Petro Canada 10W30 Engine oil (1L jug): | 1 |
| Petro Canada ATF D3M Transmission oil: | 1 |
| Polar Zone -35 Wiper Fluid 3L: | 1 |

In the Fume Hood:

Terminix All Clear Mosquito Bait Concentrate 5L jug

BugFix Insecticide Spray 1L bottle

Bayer DRIONE pails(3kg Net): [OLD Pail] = 1.54 kg [NEW Pail] = 3.0 kg

1539 Waverley : INSECT CONTROL BRANCH : Field Supervisor Area

Chemical and Misc. located in the FLAMMABLE ITEMS Safety Cabinet:

1 (500ML) BOTTLE OF OXYGEN ELECTROLYTE 05513-53 MADE BY COLE PARMER

1 (500ML) BOTTLE OF ZERO OXYGEN SOLUTION 05513-90 MADE BY COLE PARMER

2 BOTTLES (~250ML & 500ML) OF 70% ETHANOL

1 LB JAR OF GLYCERIN JELLY BY FISHER SCIENTIFIC

1 (473ML) JAR OF GLYCERIN BY FISHER SCIENTIFIC

1 (500ML) BOTTLE OF DVL IODINE SPRAY

1 CONTAINER OF BETADINE SOLUTION (~1 L LEFT OF 5L)

1 (1L) BOTTLE OF PAINT THINNER

1 STICK OF GIANT DESTROYER

1 (500ML) BOTTLE OF ETHYL ALCOHOL (1/3 LEFT)

1 BOTTLE OF 90% ETHANOL (~700ML)

1 (20L) CONTAINER OF ETHYL ALCOHOL (~1 OR 2L LEFT)

1 (~8L) JUG OF 70% ETHANOL

1 (~8L) JUG OF ISOPROPANOL

1 (8 FLUID OZ.) BOTTLE OF STARTRON ENZYME FUEL TREATMENT

2 CANS OF WHITE SPRAY PAINT

1 CAN OF BLACK SPRAY PAINT

1 CAN OF ORANGE SPRAY PAINT

1 GALLON PAIL OF WHITE PAINT

1 QUART OF BLACK PAINT

1 QUART OF WOOD FINISH

3 SMALL PROPANE CONTAINERS (NOT MUCH LEFT IN ANY)

10L CONTAINER OF GASOLINE (2/3 FULL) AND A 10L EMPTY GAS CAN

5L CONTAINER OF GASOLINE MIX (VERY LITTLE LEFT)

1 AEROSOL CAN OF ACRY SOL P60170 AUTOBODY SOLVENT

1 AEROSOL CAN OF COLOUR QUICK HIGH GLOSS ACRYLIC

1 AEROSOL CAN OF AUTOMOTIVE BRAKE CLEANER (VERY LITTLE LEFT)

APPENDIX F
HELIPORT EMERGENCY RESPONSE PLAN

3.2.1 HELIPORT EMERGENCY RESPONSE PLAN

| SERVICE | DETAILS |
|--------------------------------|---|
| Formal Emergency Response Plan | Section 4.1 |
| Heliport Attended | Yes – Contract spray operator’s staff or WFPS for STARS |
| Telephone Available | Yes |
| Fire Extinguishers Available | Yes |
| Crash/Fire/Response | Winnipeg Fire Paramedic Service - 911 |
| Medical Services Available | Winnipeg Emergency Medical Services - 911 |
| Ambulance Services Available | Winnipeg Fire Paramedic Service - 911 |

REMARKS: Nil

4.1.1 HELIPORT EMERGENCY RESPONSE PLAN

This Emergency Response Plan outlines the responsibilities and functions of the various departments and external agencies in the event of an emergency at or near the City of Winnipeg Heliport only and is not intended to apply beyond our property.

The HPM or designate are responsible for initiating the City of Winnipeg Heliport Emergency Response Plan. Primary responsibility for dealing with the emergency rests with the WFPS. WFPS has been made aware of the potential use of the heliport 24 hours a day 7 days per week (see EMERGENCY RESPONSE PLAN ACKNOWLEDGMENT). In the event of an emergency at the City of Winnipeg Heliport, the attending staff, HPM or designate will stand by to assist the WFPS as directed by the ranking fire officer.

All City of Winnipeg Heliport staff is provided training annually in the use of fire extinguishers including A-B-C dry chemical type (see Appendix E). All fire extinguishers are inspected monthly and replaced according to the manufacturer’s recommendations. An A-B-C fire extinguisher with a UL rating of 10-A: 120-B is available for deployment by attending heliport staff, WFPS or contracted users in the event of an emergency. The fire extinguisher is located at the southwest corner of the hangar.

In the event of an emergency such as an aircraft accident, fire or medical emergency at the heliport; the following actions, which form part of the City of Winnipeg Heliport Emergency Response Plan will be initiated:

- (a) Public Works Department, Insect Control Branch, STARS, radio operator, Regional Duty Officer or air operator maintenance staff will call 911 for any emergency requiring, Winnipeg Police Service and/or WFPS.

(b) Attending staff will notify all appropriate personnel as per their Critical Incident Response Plan Emergency numbers are posted in the radio room and at strategic locations within the ENR:

- | | |
|--|----------------|
| (i) Winnipeg Fire Paramedic Service | 911 |
| (ii) Winnipeg Police Service | 911 |
| (iii) Heliport Manager or designate and Duty Officer | 204-986-4869 |
| (iv) NavCanada Flight Information Centre | 1-866-992-7433 |

(c) For Transportation Safety Board of Canada (TSB) notification, the respective FIC contacts the Shift Manager at the NavCanada, Winnipeg Area Control Centre (ACC). The HPM or designate will confirm if the ACC Shift Manager has contacted the on-call TSB investigator.

(d) The HPM or designate or attending staff, as the situation presents, will stand by the heliport to assist the helicopter crew and/or the fire department if requested and safe to do so.

(e) The HPM or designate or attending staff, as the situation presents, will prevent access to the heliport area except for the WFPS, ambulance personnel and Winnipeg Police Service.

APPENDIX G

FIRE SAFETY PLAN AND CITY OF WINNIPEG FIRE DRILL PROCEDURE



Embrace the Spirit • Vivez l'esprit

PUBLIC WORKS DEPARTMENT • SERVICE DES TRAVAUX PUBLICS

Building Services Division • Division de l'entretien des bâtiments

PUBLIC WORKS DEPARTMENT • SERVICE DES TRAVAUX PUBLICS

Insect Control Branch, Resource Protection and Safety Services Division

FIRE SAFETY PLAN

FOR

**Insect Control Branch
3 Grey Street**

November , 2004

(Revised June 20, 2011)

Prepared by:

Lou Chubenko
Public Works Dept
Building Services Division
100 Main Street

Bruce Huchko
Corporate Services Dept
Corporate Safety Branch
4th Floor, 180 King Street

Greg Robinson
Public Works Department
Parks and Open Spaces Division
Insect Control Branch
3 Grey St.

FIRE SAFETY PLAN PREPARED BY THE BUILDING SERVICES DIVISION OF PUBLIC WORKS AND THE RESOURCE, PROTECTION AND PARKS AND OPEN SPACES DIVISION OF PUBLIC WORKS DEPARTMENT.

Parts 2 to 6 have been prepared by Greg Robinson, Operations and Safety Coordinator, Insect Control Branch in consultation with Bruce Huchko, Corporate Safety Officer.

Insect Control Branch – 3 Grey Street

3 Grey Street is a one-storey building, 3,000 square feet in area, and is located on the corner of Grey Street and Cole Avenue. The City of Winnipeg, Public Works Department, Parks and Open Spaces Division, Insect Control Branch, occupies the entire building.

In accordance with the **Guidelines for Preparation of Fire Safety Plans and Required Maintenance Procedures for all buildings coming under the Manitoba Fire Code, as adopted By-Law 1322/76** the Public Works Department is submitting the following Fire Safety Plan for approval by the Winnipeg Fire Paramedic Service Department.

The Fire Safety Plan incorporates the following items:

- 1) Audit of Building Systems
- 2) Human Resources for Conducting Building Evacuation
- 3) Emergency Procedures
- 4) Fire Warden General Duties
- 5) Method of Training Fire Wardens
- 6) Method and Frequency of Conducting Fire Drills
- 7) Maintenance Procedures for Fire Protection Systems (See Appendix “A”)
- 8) Building Evacuation Routes (See Appendix “B”)

FIRE SAFETY PLAN

Insect Control Branch – 3 Grey Street

1) AUDIT OF BUILDING SYSTEMS

Fire Alarm System

The fire alarm system in the building is a Simplex 4001 and is single stage. It is monitored by The City of Winnipeg, Central Control Office. The fire alarm control panel is located on the East wall of the first room as you enter the front entrance.

Building Alarm System

The building Alarm System is equipped with exterior door contacts and motion sensors. It is a MAXSYS alarm and is monitored by The City of Winnipeg, Central Control Office.

Fire Exits

There are two (2) Fire Exits located in the occupied area of the building. The main exit is the front doors located on the west side of the building and exits to Warnock. The second exit, exits to the rear of the building and leads to the staff parking lot.

Fire Department Access

The Fire Department access to the building is through the main (West) entrance and the door at the Southwest corner of the garage. The fire department Information Panel is located on the East wall of the first room as you enter the front entrance.

Fire Equipment

- There are Class A, B, C fire extinguishers located throughout the building on the main floor and are indicated on the respective floor plans.
- Smoke detectors are located throughout the building.
- Heat sensors are located throughout the building.
- Pull stations are located throughout the building as indicated on the drawings.
- There are carbon monoxide sensors in the garage and chemical storage room

Gas Shut-Off Valve

The gas shut-off valve is located in the north west corner of the maintenance garage.

Fire Hydrants

The nearest Fire Hydrant is located on the Northwest corner of Grey Street and Cole Avenue. There is also a Fire Hydrant located northeast of the building on the North side of Cole Avenue.

Note:

The east end of the main building is a warm storage chemical pesticide room with a variety of products and quantities. A monthly update of the inventory of products plus quantities is submitted to the Fire Paramedics Services.

2) HUMAN RESOURCES FOR CONDUCTING THE BUILDING EVACUATION

The Insect Control Branch, of the Resource Protection and Safety Services Division of the Community Services department will be responsible for conducting the evacuation of 3 Grey St. The Public Works Department will be responsible to arrange for the inspection, testing and maintenance of the building's fire protection systems and equipment.

The Insect Control Branch staff appointed to execute the evacuation plan includes:

| | | | |
|--------------------|----------------|------------------------------|--------------|
| Chief Fire Warden | Clerk B | Bev Land or Designate | Ph. 986-4867 |
| Fire Warden - West | Foreman ICB | Gary Swarbrick or Designate | Ph.986-4870 |
| Fire Warden - East | Garage Foreman | Dennis Boulbria or Designate | Ph. 986-4866 |

The following will assist in the emergency evacuation of the areas.

Operations and Safety Coordinator (if available)
 Foreman's ICB (if available)
 Maintenance Workers (if available)

For the evacuation procedure outside of regular business hours please see the section titled "**Outside of regular business hours**".

As clerical staffing levels may vary due to holiday leave, sick time etc. it may be necessary for fire wardens to pick up more than one badge and clear several areas. **In the event of an alarm or fire, priority is to be given to clearing areas known to have occupancy. Staff at the front clerical area should always be kept informed as to the areas that will be occupied.**

Fire Warden Responsibilities

Due to possible personnel relocation and holiday/sick leave, responsibilities are listed by area to be cleared and not by staff member name.

Fire Wardens Assisting Persons with Disabilities

- * Persons with disabilities may have difficulty exiting the building in a timely manner. Fire Wardens are to assist these individuals by ensuring that they are ready to be evacuated by emergency personnel. This may mean staying with them or having them stand by a safe emergency exit. **If Fire Wardens stay with the individual(s), they must instruct someone to tell the Chief Fire Warden where they will be staying. If Fire Wardens do not stay behind, they must inform the Chief Fire Warden of the whereabouts of the persons left in the building.**

Chief Fire Warden

- * Appoint and organize staff as fire wardens and assistant fire wardens.
- * Maintain a list of names of fire wardens. The list is to be updated if changes occur.
- * Organize brief orientation meetings throughout the year with fire wardens to outline responsibilities, fire safety instructions, and evacuation routes. The Fire Paramedic Service Department may attend to present sessions on fire extinguisher operation, and fire fighting procedures.
- * Revise the fire safety plan as required.
- * Initiate a fire safety awareness program with assistance from the Fire Safety Co-ordinator (Bruce Huchko).
- * Ensure that all fire alarms are treated as evacuation alarms. Report any sounded alarm to the fire department.
- * Organize with the Fire Safety Co-ordinator; fire drills at least once per year.
- * If the named Chief Fire Warden is not working, then an alternate staff member becomes the Chief Fire Warden. In the event of a planned absence, the Chief Fire Warden must arrange for coverage during the absence.

In Case of Fire:

- * Activate the fire alarm system at a pull station.
- * **Phone (Centrex 9-911) when the fire alarm sounds.**
- Pick up Chief Fire Warden badge and vest. Wear the vest and display the badge during the fire alarm.
- Determine if all badges will be picked up. If not you must ensure all areas are being evacuated.
- * Meet all Fire Wardens outside the gate on the west side of the building on Grey St.
- * Determine if the building is totally evacuated and the location of fire by questioning the Fire Wardens.
- * Meet with the Fire Paramedic Service Department site commander and relay any information regarding fire location and evacuation status.
- * If necessary, direct Fire Wardens to move evacuated people to the Heliport on 620 Tyne St.

- * Submit a report to the Fire Safety Co-ordinator following any emergency evacuation.
- * People that need to be informed of the evacuation:

| | | |
|-------------------------------|----------------------------|---------------------------|
| Public Works, Central Control | | Ph. 986-2382 |
| Greg Robinson | Ops and Safety Coordinator | Ph 986-4869 Cell 471-7536 |
| Taz Stuart | City Entomologist | Ph 986-3794 Cell 795-9078 |
| Dave Domke | Manager | Ph 986-2675 Cell 794-4288 |

Fire Warden - West

When the fire alarm bell sounds:

- * Shout to occupants,
"This is a fire alarm, everyone must leave the building immediately using the nearest safe exit."
- Pick up the Fire Warden West badge. Check staffing levels. You may need to also pick up and clear the areas indicted on the Fire Warden East badge. Display all identification badges during the fire alarm.
- Clear the following areas:
 - Front Office
 - Lunch Room
 - Lady's washroom
 - Men's washroom
- * Evacuate all persons via the nearest safe exit.
- * Meet the Chief Fire Warden outside the west gate on Grey St. and report evacuation status.

In Case of Fire:

- Activate the fire alarm at a pull station.

Fire Warden - East

When fire alarm bell sounds:

- * Shout to occupants,
"This is a fire alarm, everyone must leave the building immediately using the nearest safe exit."
- * Pick up the Fire Warden East badge. Check staffing levels. You may need to also pick up and

clear the areas indicted on the Fire Warden West badge. Display all identification badges during the fire alarm.

- Clear the following areas:
 - Maintenance Office
 - Garage area
 - Warm Chemical Storage

- * Evacuate all persons via the nearest safe exit.

- * Meet the Chief Fire Warden outside the west gate on Grey St. and report evacuation status.

In Case of Fire:

- Activate the fire alarm system at a pull station.

Outside of regular business hours

Persons that use the 3 Grey St. Offices outside of regular business hours are responsible for conducting the evacuation of their area and notifying the Fire Paramedic Service Department in the event of an alarm or fire. In general, the following procedure should be used in the event of an alarm or fire:

When fire alarm bell sounds:

- * Shout to building occupants,
"This is a fire alarm, everyone must leave the building immediately using the nearest safe exit."

- * **Phone (Centrex 9-911) when the fire alarm sounds.**

- * Clear all areas that have occupancy. This may mean clearing the immediate area and washroom facilities.

- * Evacuate all persons via the nearest safe exit.

- Have the area's occupants meet outside the west gate on Grey St..

- * Designate someone to determine the following by questioning occupants:
 - Whether the building has been totally evacuated.

 - Whether everyone has been accounted for.

 - The location of the fire if known.

- This individual should then report to the Fire Paramedic Services Department site commander and relay any information regarding fire location and building's evacuation status. **Inform fire site commander of areas that have not been searched.**

Persons that need to be informed of the evacuation as soon as possible include:

| | | |
|-------------------------------|-----------------------------------|---------------------------|
| Public Works, Central Control | | Ph. 986-2382 |
| Greg Robinson | Operations and Safety Coordinator | Ph 986-4869 Cell 471-7536 |
| Dave Domke | Manager | Ph 986-2675 Cell 794-4288 |
| Taz Stuart | City Entomologist | Ph.986-3794 Cell 795-9078 |

In Case of Fire:

Activate the fire alarm system at a pull station.

Additional Fire Warden Duties

In General:

- * Check all exit doors to ensure they open freely and are free from snow build up on the exterior of the building. (as required) Immediately report problems to the Operations and Safety Coordinator 986-4869.
- * Report burnt out lighting for exit lights and emergency lighting to Public Works, Building Services @ 986-2382 (as required).
- * Visually inspect charge status of extinguishers and report missing/undercharged extinguishers to Public Works, Building Services @ 986-2382(as required).
- * Maintain means of egress, including all corridors and entrances; free of obstructions e.g. Boxes, garbage, furniture etc. (as required)
- * Be familiar with the Fire Safety Plan and specific responsibilities.
- * Ensure new employees know how to get out of the building in the event of an emergency.
- * Ensure that all employees understand the 3 Grey St. Fire Safety Plan.

3) EMERGENCY PROCEDURES

All occupants are advised to:

- No smoking.
- Know where the alarm pull stations, fire extinguishers and exits are located.
- Become familiar with the posted evacuation routes.
- Call the Fire Paramedic Service immediately in case of fire. **(Centrex 9-911)**
- Know the correct building address **(3 Grey St)**
- Cooperate with building staff, the Fire Paramedic Service and other emergency personnel.

In the event of fire:

- Ensure the fire alarm has been activated.
- Close the door(s) in the area in which the fire is present.
- Leave the fire area and notify the Fire Paramedic Service **Phone (Centrex 9-911)**
- The Central Control Office at 510 Main Street monitors the fire alarm system of most civic buildings. When a fire alarm is received, the Central Control Office will:
 - ⇒ **Immediately notify the Fire Paramedic Service.**
 - ⇒ **Immediately notify an electrician to re-set the fire alarm system.**
 - ⇒ **If an electrician cannot be contacted, the Central Control Office will call the pre-approved fire alarm system contractor to re-set the fire alarm system.**
- If there is smoke, crouch low to the floor.
- If smoke is encountered in a corridor, consider using an alternate escape route.
- All persons are to leave the building using the nearest safe exit.
- When Fire Paramedic Service arrives, which is usually within minutes, they are in charge of the site.
- If required, **buses may be requested through the Fire Paramedic Service.**

The designated Emergency shelter for Insect Control staff is:

Heliport 620 Tyne St.

Building Re-Entry and Alarm Re-Set Procedure:

- Public and staff are not to re-enter the building until it is declared safe by the Winnipeg Fire Paramedic Service.
- After it has been declared safe, staff shall be allowed to enter and silence the fire alarm.
- The Central Control Office must be contacted to request an electrician to re-set the fire alarm system at **986-2382**.
- Public may be allowed to re-enter the building. If sufficient staff are not available to perform a fire watch walkabout in all areas, occupancy should be restricted to only the patrolled areas of the building until the fire alarm system has been re-set.

Procedures While Fire Alarm System Is Silenced:

- During this period, staff will be appointed to perform a **fire watch walkabout** until the electrician or an authorized fire alarm system contractor checks the system and resets it.
- The fire watch walkabout involves staff patrolling occupied areas of the building approximately every 15-20 minutes, being on the look out for signs of fire (smoke, smells of something burning etc.). The fire watch is required, as the building is not properly monitored until the fire system has been reset.
- The electrician or contractor shall call the Central Control Office at 986-2351 to confirm that the fire alarm system is operational.
- After the fire alarm system is declared fully operational, the fire watch patrols can be stopped.

In the event of fire while the alarm is silenced:

Be aware that fire alarm can not be activated.

When fire has been noticed:

- Make announcement as you begin to clear your area.
 - **“This is a fire alarm everyone must leave the building immediately using the nearest safe exit.”**
- Close the door(s) in the area in which the fire is present.
- Leave the fire area and notify staff of the situation.
- Follow your evacuation procedures as per your fire safety plan.

4) FIRE WARDEN GENERAL DUTIES

All Fire Wardens are advised to:

- * Refrain from smoking.
- * Know where the alarm pull stations, fire extinguishers and exits are located.
- * Become familiar with the posted evacuation routes and fire extinguisher use.
- * Call the Fire Department immediately in the case of fire.
- * Know the correct building address (3 Grey St.)
- * Ensure new employees are familiar with their duties during an evacuation and the Fire Safety Plan.
- * Cooperate with the Fire Paramedic Services Department and other emergency personnel.

5) METHOD OF TRAINING FIRE WARDENS

Training should be on-going. At a minimum, staff meetings should be held three times per year and time allotted for Fire Safety Plan review, questions and answers.

6) METHOD AND FREQUENCY OF CONDUCTING FIRE DRILLS

Fire drills are to be conducted once per year. The purpose of conducting the drill is to familiarize Fire Wardens with the building's evacuation procedure. The drill is to be conducted as per the Fire Plan. Deficiencies are to be noted and changes made accordingly. Changes made to the drill are to be included in a revised Fire Plan and communicated to all staff and Fire Wardens.

7) MAINTENANCE PROCEDURES FOR FIRE PROTECTION SYSTEMS

(See Appendix "A")

8) BUILDING EVACUATION ROUTES

(See Appendix "B")



**CHIEF FIRE WARDEN
FIRE DRILL PROCEDURE
FOR
CIVIC WORKPLACES**

(A tool to help civic staff designated as Chief Fire Wardens, prepare for and conduct fire drills.)

Prepared by:

Corporate Support Services
Human Resource Planning and Services Division
Organizational Safety and Occupational Hygiene Branch

And

Winnipeg Fire Paramedic Service
Support Services Division
Public Education Branch

FEBRUARY 2012

This version replaces all earlier dated versions.

This procedure is posted on CityNet at:

<http://citynet/hrintra/workplacewellness/Safety/FireSafety/FireDrills.stm>

Fire Drills involving the use of the building's fire alarm system are to be conducted with the Winnipeg Fire Paramedic Service in attendance. This allows the Service the opportunity to observe your drill and to provide comment to improve your evacuation procedure. The presence of the Service also encourages increased stakeholder participation.

After you have submitted the [Fire Drill Request](#) form and received confirmation from the Fire Paramedic Service about your drill date and time, workplace stakeholders need to prepare in order to have a successful fire drill. The following explains the steps in detail. A shorter [Fire Drill Preparation Checklist](#) is found in Appendix 1.

Before Drill Day:

Inform Stakeholders

- ✓ Immediately notify the person(s) responsible for resetting the fire alarm system and building ventilation system on the **date** and expected **time** of the drill. If your fire alarm system is monitored, you will also need to know the phone number of the monitoring agency. This information can be found in your building's fire safety plan.
- ✓ Give staff and other building tenants the opportunity to prepare for the drill by letting them know in advance about the **date** of the drill only. By having staff and others not know the exact time, this will simulate a "surprise" just like a real emergency.
- ✓ All contractors working in your premises on the day of the drill must be notified in advance about the **date** of the drill. This information may be obtained by contacting your building servicer or the person in charge of overseeing the contractor's work e.g. project officer. If the drill will cause an extraordinary amount of disruption for the contractor due to the type of work being done, they should also be notified about the **time** of the drill as they may not be able to evacuate quickly or participate. e.g. asbestos abatement, concrete pouring, sand blasting, welding etc.

Review Your Building Fire Safety Plan

- ✓ Before the drill date, review your fire safety plan with your Fire Wardens. Each Fire Warden should know their specific duties including: areas to clear; role in helping persons in need of evacuation assistance; what information to report and where to report to the Chief Fire Warden; building re-entry procedure; where to report for the fire drill de-brief; etc. After the review, ensure that Fire Wardens meet with the colleagues in the areas that they clear to inform them about their role(s) during the fire drill. e.g. the designated exit(s) to use; their role if buddied with someone who needs evacuation assistance; the designated outdoor meeting place; the designated indoor assembly area if a staged evacuation is needed; building re-entry procedure; etc.

Drill Day: Pre Drill Activities

- ✓ **If required, notify contractors.**
- ✓ **If required, post fire drill notices to inform members of the public.**

Post signs on the entrance to the building informing the public about the fire drill. Since some members of the public may be reluctant to participate in the drill e.g. swimmers; persons with disabilities; the elderly, guardians with young children, etc. the notice will help them to decide whether to participate in the drill or leave before the drill happens. See Appendix 2 [Suggested Wording for Fire Drill Notice](#).

- ✓ **Confirm that the fire alarm system technician is on-site.**

Only authorized trained individuals are allowed to reset your fire alarm system. This is usually the fire alarm system technician or an electrician.

- ✓ **Confirm that it is safe to conduct the drill.**

Should there be **severe weather** at the scheduled drill time i.e. lightning, high winds, driving rain/snow etc. postpone the drill and reschedule for another safer time to conduct the drill.

✓ **Wait for the Fire Paramedic Service to arrive.**

The Fire Paramedic Service should arrive just before your scheduled drill time. If they are not present, it may mean that they have been called to a real emergency. If the Service is not present, you **must** call 986-6336 to ask whether you can still run the drill. If permission is given, you can conduct the drill without the Service in attendance. If not, you must cancel the drill and re-schedule it for another date.

✓ **Meet the fire truck.**

If your building has multiple entrances, the fire crew may not know which entrance to meet you at.

✓ **Record the fire commander's name, truck number and fire station number.**

Include this information in your fire drill report.

✓ **Decide which pull station to use.**

Consult with the fire alarm system technician/electrician and determine which pull station will be activated.

✓ **Call your building's fire alarm monitoring agency to inform them about the drill.**

Inform your building's fire alarm monitoring agency that you are about to conduct a fire drill with the fire department in attendance. When speaking to them, request that they **Do Not** call 911.

✓ **Request fire commander post crew to observe fire drill participants.**

If you believe that there may be some persons that may be reluctant to participate in the drill, request that the fire commander post his crew to observe those individuals.

✓ **Request fire commander to radio the fire dispatcher.**

When you are ready to conduct the drill, inform the fire commander and request that he radio Fire Dispatch to inform them that you are about to conduct the fire drill. This is necessary so that additional fire trucks are not sent to your location needlessly. After the commander has informed Fire Dispatch, he will then give you permission to start your drill.

Drill Day: Conducting the Drill

✓ **Activate the fire alarm.**

After permission has been given, activate your fire alarm system using the pull station that was agreed to be used.

✓ **Time the building evacuation.**

Time the building evacuation from the start of the alarm to the time where everyone has evacuated the building. Record this as the evacuation time. If you need help timing the evacuation, you can request the fire commander to do this for you. You should request this before you start the drill. For single story buildings the evacuation should take less than 3 minutes.

In cases where all persons are unable to leave the building, time the building evacuation from the start of the alarm to the time where you report the status of the building's occupancy to the fire commander. Record this as the evacuation time.

✓ **Perform your evacuation duties, but DO NOT call 911.**

Perform your duties following your fire safety plan. As this is a drill, **DO NOT** Call 911. Observe fire wardens, staff, public, and other building tenants and make note of concerns and of what went well.

Drill Day: Post Drill Activities

After the building has been evacuated and you have reported the occupancy status of the building to the fire commander:

- ✓ **Ask permission from the fire commander to silence and re-set the fire alarm system.**

To silence the alarm, follow the alarm silence procedure as found in your fire alarm panel box or in your fire safety plan. If you are still unsure, ask the fire alarm system technician/electrician to show you. As only qualified persons are allowed to re-set the fire alarm system, only the fire alarm system technician/electrician can re-set the system.

Tip: The fire alarm bells must be silenced before persons are allowed back into the building. The reason being that should another emergency occur while the fire alarm system is sounding, you would not be able to alert persons about the new emergency because the system is already into an alarm.

- ✓ **After the alarm is silenced, allow persons to re-enter the building.**

Allow an orderly building re-entry following the procedure in your fire safety plan. If the fire alarm system cannot be re-set, **Fire Watch** procedures must be implemented until the system is operational. Your building specific fire watch procedure may be found in your fire safety plan.

- ✓ **Call your building's fire alarm monitoring agency to let them know that the drill is complete.**
- ✓ **Request comments on your drill.**

Request that the fire commander and his crew provide comment on the drill. Record their comments. Include this information in your fire drill report.

- ✓ **Offer a tour of your facility to the fire crew.**

As time permits, you can offer to give a tour of your facility to the fire crew. This will give the crew an opportunity to observe the types of activities that take place in your facility and identify areas that might be of a concern to emergency responders e.g. hazardous materials/processes; special alarm systems; unique evacuation challenges, etc. Record concerns identified by the fire crew in your fire drill report.

After the fire truck has left:

- ✓ **Arrange de-brief meeting.**

Arrange a debrief meeting with your Fire Wardens to discuss and assess the drill. Encourage other staff input by asking your fire wardens to request feedback about the drill from their colleagues.

- ✓ **Document the fire drill details.**

Create a fire drill report by using the [Building Emergency Evacuation Summary](#) form. This report will serve as proof that the drill took place in case the City is questioned by authorities. Share the report with the stakeholders indicated on the form.

- ✓ **Implement changes before the next drill date.**
- ✓ **Review/revise your fire safety plan and share the changed plan with stakeholders.**

The Manitoba Fire Code requires that the fire safety plan be reviewed annually to ensure that it remains current.

Appendix 1

Fire Drill Preparation Checklist



Fire Drill Preparation Checklist for Chief Fire Wardens

Fire Drills involving the use of the building's fire alarm system are to be conducted preferably with the Winnipeg Fire Paramedic Service in attendance. This allows the Service the opportunity to observe your drill and to provide comment to improve your evacuation procedure. The presence of the Service also encourages increased stakeholder participation.

After you have submitted the [Fire Drill Request](#) form and received confirmation from the Fire Paramedic Service about your drill date and time:

Before Drill Day:

- Inform stakeholders.
- Review the fire safety plan with stakeholders.

Drill Day - Pre-Drill Activities:

- If required, notify contractors.
- If required, post fire drill notices to inform members of the public.
- Confirm that fire alarm system technician is on-site.
- Confirm that it is safe to conduct the drill.
- Wait for the Fire Paramedic Service to arrive.
- Meet the fire truck.
- Record fire commander's name: _____

Truck number: _____ Fire Station Number: _____

- Decide on pull station to use.
- Call building's fire alarm monitoring agency to inform them about the drill. Request them to **NOT** call 911.
- If required, request fire commander to post crew to observe fire drill participants.
- Request fire commander to radio the fire dispatcher.

Drill Day - Conducting the Drill:

- Activate the fire alarm.
- Time the building evacuation.
- Perform evacuation duties, but **DO NOT** call 911

Drill Day - Post Drill Activities:

- Ask permission from the fire commander to silence and re-set the fire alarm system.
- After the alarm is silenced, allow persons to re-enter the building.
- If required, implement **Fire Watch** procedures.
- Call building's fire alarm monitoring agency to inform them that the fire drill is complete.
- Request/record comments from fire crew on your drill.
- Time permitting, offer a tour of your facility to the fire crew.

After the fire truck has left:

- Arrange de-brief meeting.
- Document the fire drill details using the [Building Emergency Evacuation Summary](#) form.
- Implement changes before the next drill date.
- Review/revise your fire safety plan and share the changed plan with stakeholders.

Appendix 2

Suggested Wording for Fire Drill Notice

NOTICE

FIRE DRILL TODAY



The Winnipeg Fire Paramedic Service will be present to observe the evacuation of this facility.

All building occupants:

- ✓ **Please cooperate by following directions given by City staff.**

Thank You



APPENDIX H
GOVERNMENT CORRESPONDENCE

AIR QUALITY WORKING GROUP

Gene Senior

From: Krawchuk, Bert (SD) <Bert.Krawchuk@gov.mb.ca>
Sent: Friday, February 02, 2018 10:51 AM
To: 'Gene Senior'
Subject: RE: Provincial Air Quality Reports
Attachments: 12 Data Table.docx; 13 Data Table.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Gene,

When I checked the 2014 Table had not been completed when my colleague who was working on them departed for another agency. Since a departmental reorganization I can only fit air quality report work around my other responsibilities. It may be a number of months before the 2014 Table is ready. I am enclosing the 2012 and 2013 Tables for your use.

Bert P. Krawchuk M.Sc.

Emergency Response Program Support Specialist / Emergency Response Team Member
Air Quality Working Group Member

Environmental Compliance and Enforcement

Environmental Stewardship Division

Manitoba Sustainable Development

Phone: (204) 945-7044 Cell: (204) 391-1305 Fax:: (204) 948-2338
email: Bert.Krawchuk@gov.mb.ca

Address: 1007 Century Street
 Winnipeg, Manitoba R3H 0W4

In the event of an Environmental Emergency please call the 24hr Environmental Emergency Response Line at (204) 944-4888 or Toll Free in Manitoba 1-855-944-4888



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From: Gene Senior [<mailto:GSenior@ksgsgroup.com>]
Sent: February-02-18 10:28 AM
To: Krawchuk, Bert (SD) <Bert.Krawchuk@gov.mb.ca>
Subject: RE: Provincial Air Quality Reports

Hi Bert,
If you are able to send the 2014 summary table, I would like to include it in the report that I am preparing for submission to the Canadian Environmental Assessment Agency.
Thanks,
Gene

From: Krawchuk, Bert (SD) [<mailto:Bert.Krawchuk@gov.mb.ca>]
Sent: Tuesday, January 30, 2018 11:02 AM
To: Gene Senior
Subject: Re: Provincial Air Quality Reports

I'm out of the office today and tomorrow's, will send on Friday.

Bert

Sent from my BlackBerry 10 smartphone.

From: Gene Senior
Sent: Tuesday, January 30, 2018 10:52 AM
To: Krawchuk, Bert (SD)
Subject: RE: Provincial Air Quality Reports

Hi Bert,
I was wondering if you'll be able to send me the summary tables from 2014.
Thanks,
Gene

From: Gene Senior [<mailto:GSenior@ksgsgroup.com>]
Sent: Tuesday, January 23, 2018 12:00 PM
To: 'Krawchuk, Bert (SD)'
Cc: 'Ibn Azkar, Muntaseer (SD)'; 'Molod, Rommel (SD)'
Subject: RE: Provincial Air Quality Reports

Hi Bert,
For the purposes of my report, summary information from 2014 would be just fine. If you can provide that to me, it would be greatly appreciated.
Thanks!
Gene

From: Krawchuk, Bert (SD) [<mailto:Bert.Krawchuk@gov.mb.ca>]
Sent: Tuesday, January 23, 2018 10:56 AM
To: 'GSenior@ksgsgroup.com'
Cc: Ibn Azkar, Muntaseer (SD); Molod, Rommel (SD)
Subject: Provincial Air Quality Reports

Good morning Gene,

I was forwarded your request for Ambient Air Quality Reports. Unfortunately, the most recent reports that are available are the ones on the Department's web site. I have a limited number of older reports (hard copy). Due to a staffing shortage I have not been able to publish any further reports although work on them has been initiated.

Summary tables are available to 2014, which can be provided if they will meet your needs.

Bert P. Krawchuk M.Sc.

Emergency Response Program Support Specialist / Emergency Response Team Member
Air Quality Working Group Member

Environmental Compliance and Enforcement

Environmental Stewardship Division

Manitoba Sustainable Development

Phone: (204) 945-7044 Cell: (204) 391-1305 Fax:: (204) 948-2338
email: Bert.Krawchuk@gov.mb.ca

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Table 3

Manitoba Ambient Air Quality Data - 2013 Annual Pollutant Summary - Continuous Monitoring

| POLLUTANT Conc. Units | STATION NUMBER & LOCATION | # OF MONTHS AVAIL. | PERCENT OF DATA AVAIL. | PERCENTILE DISTRIBUTION (1-HOUR SAMPLES) | | | | | | ANNUAL MEAN | MAXIMUM DATA VALUES | | # OF SAMPLES ABOVE M.D.L. | | # OF SAMPLES ABOVE M.A.L. | | # OF SAMPLES ABOVE M.T.L. | |
|--|--|--------------------------|------------------------------|---|------|------|------|------|------|----------------|------------------------|--------------------|------------------------------|-----------------|------------------------------|----------------|------------------------------|----------------|
| | | | | 10% | 30% | 50% | 70% | 90% | 99% | | 1-HR | 24-HR | 1-HR | 24-HR | 1-HR | 24-HR | 1-HR | 24-HR |
| CARBON MONOXIDE (CO) ppm | 9118 WINNIPEG, SCOTIA & JEFFERSON | 12 | 92.3 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.6 | 0.16 | 3.3 | 0.66 ^Δ | 0 | 0 ^Δ | 0 | 0 ^Δ | -- | 0 ^Δ |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 96.5 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.7 | 0.24 | 1.6 | 0.59 ^Δ | 0 | 0 ^Δ | 0 | 0 ^Δ | -- | 0 ^Δ |
| NITROGEN DIOXIDE (NO2) ppb | 5131 BRANDON, ASSIN. COMM.COLLEGE | 12 | 98.6 | 0.0 | 1.2 | 2.7 | 5.1 | 11.2 | 33.7 | 4.69 | 57.7 | 30.29 [°] | -- | -- | 0 | 0 [°] | 0 | -- |
| | 9118 WINNIPEG, SCOTIA & JEFFERSON | 12 | 96.8 | 1.0 | 2.4 | 4.3 | 8.0 | 17.4 | 39.8 | 7.32 | 52.0 | 33.98 [°] | -- | -- | 0 | 0 [°] | 0 | -- |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 99.2 | 0.0 | 1.9 | 5.0 | 9.5 | 19.5 | 40.5 | 7.79 | 62.7 | 34.17 [°] | -- | -- | 0 | 0 [°] | 0 | -- |
| NITRIC OXIDE (NO) ppb | 5131 BRANDON, ASSIN. COMM.COLLEGE | 12 | 98.7 | 0.2 | 0.6 | 1.1 | 2.1 | 6.3 | 33.5 | 2.95 | 124.0 | 29.21 [°] | -- | -- | -- | -- | -- | -- |
| | 9118 WINNIPEG, SCOTIA & JEFFERSON | 12 | 96.8 | 0.3 | 0.6 | 1.0 | 2.0 | 7.7 | 44.4 | 3.53 | 133.0 | 34.05 [°] | -- | -- | -- | -- | -- | -- |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 99.6 | 0.3 | 1.0 | 2.0 | 4.1 | 10.8 | 44.0 | 4.75 | 183.2 | 36.30 [°] | -- | -- | -- | -- | -- | -- |
| NITROGEN OXIDES (NOX) ppb | 5131 BRANDON, ASSIN. COMM.COLLEGE | 12 | 98.6 | 0.5 | 2.1 | 4.1 | 7.5 | 17.5 | 59.1 | 7.61 | 181.7 | 58.75 [°] | -- | -- | -- | -- | -- | -- |
| | 9118 WINNIPEG, SCOTIA & JEFFERSON | 12 | 96.8 | 1.5 | 3.2 | 5.7 | 10.5 | 25.6 | 79.1 | 10.85 | 175.4 | 55.60 [°] | -- | -- | -- | -- | -- | -- |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 99.3 | 0.3 | 3.4 | 7.5 | 13.9 | 28.6 | 81.1 | 12.47 | 241.6 | 65.15 [°] | -- | -- | -- | -- | -- | -- |
| SULPHUR DIOXIDE (SO2) ppb ¹⁰ | 7251 FLIN FLON, 143 MAIN STREET | 12 | 85.7 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 12 | 3 [°] | 0 | 0 [°] | 0 | 0 [°] | -- | 0 [°] |
| | 7351 [†] THOMPSON, WATER TREAT. PLANT | 12 | 98.9 | 0 | 0 | 0 | 0 | 1 | 39 | 1 | 312 | 38 [°] | 3 | 0 [°] | 0 | 0 [°] | -- | 0 [°] |
| | 7361 [†] THOMPSON, EASTWOOD SCHOOL | 12 | 99.2 | 0 | 0 | 0 | 0 | 1 | 82 | 3 | 458 | 70 [°] | 26 | 9 [°] | 2 | 0 [°] | -- | 0 [°] |
| | 7371 [†] THOMPSON, RIVERSIDE SCHOOL | 12 | 99.9 | 0 | 0 | 0 | 0 | 1 | 91 | 3 | 446 | 119 [°] | 30 | 25 [°] | 2 | 7 [°] | -- | 0 [°] |
| | 7381 [†] THOMPSON, WESTWOOD | 12 | 93.3 | 0 | 1 | 1 | 1 | 2 | 67 | 3 | 441 | 54 [°] | 19 | 0 [°] | 3 | 0 [°] | -- | 0 [°] |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 99.8 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 10 | 2 [°] | 0 | 0 [°] | 0 | 0 [°] | -- | 0 [°] |
| OXIDANTS OZONE (O3) ppb ¹¹ | 5131 BRANDON, ASSIN. COMM.COLLEGE | 12 | 90.7 | 13.4 | 21.9 | 27.5 | 33.7 | 42.9 | 52.6 | 27.9 | 66.3 | 54.33 [°] | 139 | -- | 0 | ~ | 0 | -- |
| | 9118 WINNIPEG, SCOTIA & JEFFERSON | 12 | 95.2 | 11.2 | 22.2 | 29.1 | 35.5 | 46.1 | 56.7 | 28.9 | 64.5 | 57.04 [°] | 375 | -- | 0 | ~ | 0 | -- |
| | 9119 WINNIPEG, 65 ELLEN STREET | 12 | 95.0 | 8.2 | 16.5 | 22.9 | 30.2 | 40.1 | 50.5 | 23.7 | 61.0 | 47.93 [°] | 80 | -- | 0 | ~ | 0 | -- |
| | 7251 FLIN FLON, 143 MAIN STREET | 11 | 66.2 | 13.7 | 21.6 | 26.3 | 32.0 | 38.7 | 47.9 | 26.5 | 58.6 | 51.35 [°] | 31 | -- | 0 | ~ | 0 | -- |
| | 7381 THOMPSON, WESTWOOD | 9 | 67.4 | 16.6 | 23.9 | 27.7 | 32.0 | 40.3 | 50.4 | 28.0 | 54.1 | 52.23 [°] | 56 | -- | 0 | ~ | 0 | -- |
| AMMONIA (NH3) ppb ¹² | 5131 BRANDON, ASSIN. COMM.COLLEGE | 10 | 47.7 | 0 | 4 | 7 | 12 | 47 | 404 | 27.31 | 1131.0 | 302.8 [°] | -- | -- | 0 | -- | -- | -- |

Notes: ^Δ Averaged over 8 hours
[†] Company supplied data

[°] Using 24-hour moving average

~ Numerous exceedences of the 24 hour MAL which is under review

-- No guideline or objective

Maximum Desirable Level (MDL), Maximum Acceptable Level (MAL), Maximum Tolerable Level (MTL)

¹⁰ - SO2 guidelines (ppm): MDL: 1hr-0.170, 24hr-0.060; MAL: 1hr-0.340, 24hr-0.110; MTL: 24hr-0.310

¹¹ - O3 guidelines (ppb): MDL: 1hr-50; MAL: 1hr-82, 24hr-15; MTL: 1hr-200

¹² - NH3 guidelines (ppm): MAL: 1hr-2.0

Table 4a

Manitoba Ambient Air Quality Data - 2013 Annual Pollutant Summary - Particulate Matter Monitoring (PM₁₀)

| POLLUTANT | STATION NUMBER & LOCATION | Collection n Duration | % Data or # of Samples | PERCENTILE DISTRIBUTION | | | | | | ANNUAL ARITH/GEO MEAN | MAXIMUM DATA VALUES 24/1-HR | # OF ABOVE | | # OF SAMPLES ABOVE M.A.L. | | # OF SAMPLES ABOVE M.T.L. | |
|---|--|-----------------------------|------------------------------|-------------------------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------------|---------------|-------|------------------------------|-------|------------------------------|-------|
| | | | | 10% | 30% | 50% | 70% | 90% | 99% | | | 1-HR | 24-HR | 1-HR | 24-HR | 1-HR | 24-HR |
| INHALABLE PARTICULATE (PM ₁₀) | 7251 ⁵ FLIN FLON, 143 MAIN STREET | 1-Hr | 86.8 | 0.5 | 3.3 | 6.8 | 12.9 | 30.7 | 80.1 | 12.5/6.1 | 70.1/513.8 | -- | -- | -- | 8 | -- | -- |
| | 7251 ³ FLIN FLON, 143 MAIN STREET | 24-Hr | 64 | 2.30 | 6.42 | 9.08 | 13.39 | 22.27 | 46.82 | 11.83/7.97 | 59.71/- | -- | -- | -- | 1 | -- | -- |
| | 7283 ^{4†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 93.7 | 6.25 | 10.00 | 14.37 | 20.42 | 31.58 | 47.08 | 16.71/13.83 | 53.36/- | -- | -- | -- | 1 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 4.03 | 6.62 | 8.56 | 12.95 | 20.12 | 31.15 | 10.64/8.89 | 34.50/- | -- | -- | -- | 0 | -- | -- |
| | 7381 ⁵ THOMPSON, WESTWOOD | 1-Hr | 99.5 | 2.6 | 4.6 | 6.6 | 10.6 | 25.3 | 80.6 | 11.8/7.2 | 70.4/783.7 | -- | -- | -- | 4 | -- | -- |
| | 9119 ⁵ WINNIPEG, 65 ELLEN STREET | 1-Hr | 99.2 | 2.2 | 3.3 | 4.0 | 5.0 | 7.3 | 14.7 | 4.5/3.9 | 13.2/33.0 | -- | -- | -- | 0 | -- | -- |
| | 9119 ² WINNIPEG, 65 ELLEN STREET | 24-Hr | 40 | 1.65 | 4.02 | 5.15 | 6.61 | 11.66 | 21.20 | 6.24/4.57 | 22.47/- | -- | -- | -- | 0 | -- | -- |
| | 5131 ⁵ BRANDON, ASSIN.COMM.COLLEGE | 1-Hr | 96.0 | 1.1 | 4.0 | 7.5 | 14.4 | 32.0 | 80.6 | 13.7/7.1 | 206.3/1358.0 | -- | -- | -- | 7 | -- | -- |
| LEAD (Pb) | 7283 ^{4,9†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17/0.17 | 0.17/- | -- | -- | -- | 0 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.04 | 0.01/0.01 | 0.05/- | -- | -- | -- | 0 | -- | -- |
| SULPHATES (SO ₄ ²⁻) | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 27 | 0.34 | 0.53 | 0.74 | 0.86 | 1.08 | 1.18 | 0.71/0.65 | 1.21/- | -- | -- | -- | -- | -- | -- |
| ARSENIC (As) | 7283 ^{4,9†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00/0.00 | 0.01/- | -- | -- | -- | 0 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00/0.00 | 0.01/- | -- | -- | -- | 0 | -- | -- |
| CADMIUM (Cd) | 7283 ^{4,9†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01/0.01 | 0.01/- | -- | -- | -- | 0 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00/0.00 | 0.01/- | -- | -- | -- | 0 | -- | -- |
| COPPER (Cu) | 7283 ^{4,9†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.06 | 0.02/0.02 | 0.22/- | -- | -- | -- | 0 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 0.01 | 0.01 | 0.02 | 0.03 | 0.06 | 0.24 | 0.03/0.02 | 0.29/- | -- | -- | -- | 0 | -- | -- |
| ZINC (Zn) | 7283 ^{4,9†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 0.02 | 0.02 | 0.02 | 0.03 | 0.11 | 0.31 | 0.05/0.03 | 0.48/- | -- | -- | -- | 0 | -- | -- |
| | 7284 ^{1†} FLIN FLON, RUTH BETTS | 24-Hr | 59 | 0.00 | 0.00 | 0.15 | 0.56 | 2.22 | 4.12 | 0.64/0.06 | 4.20/- | -- | -- | -- | 0 | -- | -- |

Notes:

All Concentration units for the above Table 4a are in micrograms per cubic metre (ug/m³)

-- No guideline or objective

- No data available

¹ - 24 Hour sample collected every six days (HI-VOL)

² - 24 Hour sample collected every six days according to NAPS schedule (Dichotomous)

³ - 24 Hour sample collected every three days according to NAPS schedule (Dichotomous)

⁴ - 24 Hour sample collected daily (Dichotomous)

⁵ - Real-time continuous monitoring (TEOM)

⁹ - Majority of data at or below detection limit

† Company supplied data

Table 4b

Manitoba Ambient Air Quality Data - 2013 Annual Pollutant Summary - Particulate Matter Monitoring (PM_{2.5})

| POLLUTANT | STATION NUMBER & LOCATION | Collection Duration | % Data or # OF SAMPLES | PERCENTILE DISTRIBUTION | | | | | | ANNUAL ARITH/GEO MEAN | MAXIMUM DATA VALUES 24/1-HR | # OF SAMPLES ABOVE M.D.L. | | # OF SAMPLES ABOVE M.A.L. | | # OF SAMPLES ABOVE M.T.L. | |
|--|---|------------------------|------------------------------|-------------------------|------|------|-------|-------|-------|-----------------------------|-----------------------------------|------------------------------|-------|------------------------------|-----------------|------------------------------|-------|
| | | | | 10% | 30% | 50% | 70% | 90% | 99% | | | 1-HR | 24-HR | 1-HR | 24-HR | 1-HR | 24-HR |
| INHALABLE PARTICULATE (PM _{2.5}) | 9118 ³ WINNIPEG, SCOTIA & JEFFERSON | 1-Hr | 93.1 | 0.9 | 2.0 | 3.6 | 6.1 | 12.7 | 32.2 | 5.6/3.5 | 35.1/124.8 | -- | -- | -- | 2 ⁶ | -- | -- |
| | 9119 ² WINNIPEG, 65 ELLEN STREET | 24-Hr | 40 | 1.62 | 3.96 | 5.07 | 6.54 | 11.32 | 21.00 | 6.14/4.74 | 22.18/- | -- | -- | -- | 0 ⁶ | -- | -- |
| | 9119 ³ WINNIPEG, 65 ELLEN STREET | 1-Hr | 99.7 | 2.1 | 3.7 | 5.2 | 7.4 | 12.4 | 29.7 | 6.6/5.2 | 34.7/52.4 | -- | -- | -- | 2 ⁶ | -- | -- |
| | 5131 ³ BRANDON, ASSIN. COMM. COLLEGE | 1-Hr | 98.8 | 2.2 | 3.6 | 5.1 | 7.2 | 12.1 | 24.0 | 6.4/5.2 | 22.5/194.2 | -- | -- | -- | 0 ⁶ | -- | -- |
| | 7251 ³ FLIN FLON, 143 MAIN STREET | 1-Hr | 98.4 | 1.9 | 2.8 | 3.9 | 5.4 | 9.0 | 33.6 | 5.3/4.0 | 43.7/98.4 | -- | -- | -- | 1 ⁶ | -- | -- |
| | 7251 ¹ FLIN FLON, 143 MAIN STREET | 24-Hr | 64 | 0.56 | 2.44 | 3.66 | 5.58 | 9.13 | 34.37 | 5.41/3.41 | 43.15/- | -- | -- | -- | 1 ⁶ | -- | -- |
| | 7283 ^{4†} CREIGHTON SK, HIGH SCHOOL | 24-Hr | 342 | 3.24 | 5.56 | 8.33 | 11.57 | 18.47 | 35.92 | 10.00/7.94 | 41.20/- | -- | -- | -- | 10 ⁶ | -- | -- |
| | 7381 ⁵ THOMPSON, WESTWOOD | 1-Hr | 98.8 | 0.0 | 0.9 | 2.0 | 3.6 | 8.9 | 49.3 | 4.3/2.1 | 63.0/186.2 | -- | -- | -- | 5 ⁶ | -- | -- |

Notes:

All Concentration units for the above Table 4b are in micrograms per cubic metre (ug/m³)

-- No guideline or objective

- No data available

¹ - 24 Hour sample collected every three days synchronized with the NAPS schedule (Dichotomous)

² - 24 Hour sample collected every six days according to NAPS schedule (Dichotomous)

³ - Real-time continuous monitoring (SHARP)

⁴ - 24 Hour sample collected daily (Dichotomous)

⁵ - Real-time continuous monitoring (TEOM)

⁶ - Based on Canada Wide Standard "level" for PM_{2.5} (not the actual metric of the 98th percentile annual value averaged over 3 years)

† Company supplied data

Table 4c

Manitoba Ambient Air Quality Data - 2013 Annual Pollutant Summary - Particulate Matter Monitoring (TSP)

| POLLUTANT | STATION NUMBER & LOCATION | Collection Duration | % Data or # OF SAMPLES | PERCENTILE DISTRIBUTION | | | | | | ANNUAL ARITH/GEO MEAN | MAXIMUM DATA VALUES 24-HR | # OF SAMPLES ABOVE M.D.L. | | # OF SAMPLES ABOVE M.A.L. | | # OF SAMPLES ABOVE M.T.L. | |
|--|--|-------------------------|------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|---|---------------------------------|------------------------------|----------------|------------------------------|----------------|------------------------------|----------------|
| | | | | 10% | 30% | 50% | 70% | 90% | 99% | | | 1-HR | 24-HR | 1-HR | 24-HR | 1-HR | 24-HR |
| TOTAL SUSPENDED PARTICULATE (TSP) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 217 177 120 | 10.00 7.07 6.74 | 17.80 10.70 10.40 | 27.00 17.28 16.31 | 38.20 26.58 25.73 | 64.00 42.13 49.19 | 112.20 68.43 85.58 | 33.05/25.97 21.45/17.07 22.67/21.45 | 159 100 137 | -- -- -- | -- -- -- | -- -- -- | 2 0 1 | -- -- -- | 0 0 0 |
| LEAD (Pb) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 231 177 120 | 0.01 0.01 0.01 | 0.01 0.01 0.01 | 0.02 0.01 0.01 | 0.04 0.01 0.01 | 0.08 0.01 0.02 | 0.18 0.02 0.09 | 0.04/0.03 0.01/0.01 0.01/0.01 | 0.33 0.05 0.10 | -- -- -- | -- -- -- | -- -- -- | 0 0 0 | -- -- -- | -- -- -- |
| SULPHATES (SO4=) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 236 177 55 | 0.53 0.27 0.45 | 0.84 0.58 0.72 | 1.15 0.77 0.86 | 1.48 1.04 1.05 | 2.19 1.44 1.41 | 3.61 2.45 2.02 | 1.28/1.08 0.87/0.72 0.92/0.83 | 4.99 3.97 2.10 | -- -- -- | -- -- -- | -- -- -- | -- -- -- | -- -- -- | -- -- -- |
| NITRATES (NO3-) | 7251 ¹ FLIN FLON, 143 MAIN STREET | 24-Hr | 236 | 0.05 | 0.11 | 0.16 | 0.24 | 0.43 | 13.36 | 0.48/0.16 | 24.00 | -- | -- | -- | -- | -- | -- |
| ARSENIC (As) ¹³ | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 236 177 120 | 0.00 0.00 0.00 | 0.01 0.00 0.00 | 0.01 0.00 0.00 | 0.01 0.00 0.00 | 0.02 0.00 0.01 | 0.04 0.01 0.01 | 0.01/0.01 0.00/0.00 0.00/0.00 | 0.05 0.01 0.02 | -- -- -- | -- -- -- | -- -- -- | 0 0 0 | -- -- -- | -- -- -- |
| CADMIUM (Cd) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 236 177 120 | 0.00 0.00 0.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 | 0.01 0.00 0.00 | 0.02 0.00 0.01 | 0.00/0.00 0.00/0.00 0.00/0.00 | 0.06 0.00 0.01 | -- -- -- | -- -- -- | -- -- -- | 0 0 0 | -- -- -- | -- -- -- |
| COPPER (Cu) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 236 177 120 | 0.08 0.00 0.01 | 0.13 0.01 0.03 | 0.18 0.01 0.04 | 0.28 0.02 0.07 | 0.51 0.04 0.14 | 1.14 0.12 0.25 | 0.26/0.20 0.02/0.01 0.07/0.04 | 1.85 0.13 0.64 | -- -- -- | -- -- -- | -- -- -- | 0 0 0 | -- -- -- | -- -- -- |
| ZINC (Zn) | 7251 ¹ FLIN FLON, 143 MAIN STREET 7283 ³⁺ CREIGHTON SK, HIGH SCHOOL 7284 ²⁺ FLIN FLON, RUTH BETTS | 24-Hr 24-Hr 24-Hr | 236 177 120 | 1.16 0.00 0.00 | 3.33 0.00 0.00 | 5.64 0.00 0.23 | 7.13 0.29 0.53 | 10.97 1.62 2.01 | 17.67 3.30 3.98 | 5.90/4.48 0.43/0.02 0.62/0.06 | 21.44 4.05 4.78 | -- -- -- | -- -- -- | -- -- -- | 0 0 0 | -- -- -- | -- -- -- |

Notes:

All Concentration units for the above Table 4c are in micrograms per cubic metre (ug/m³)

-- No guideline or objective

+ Company supplied data

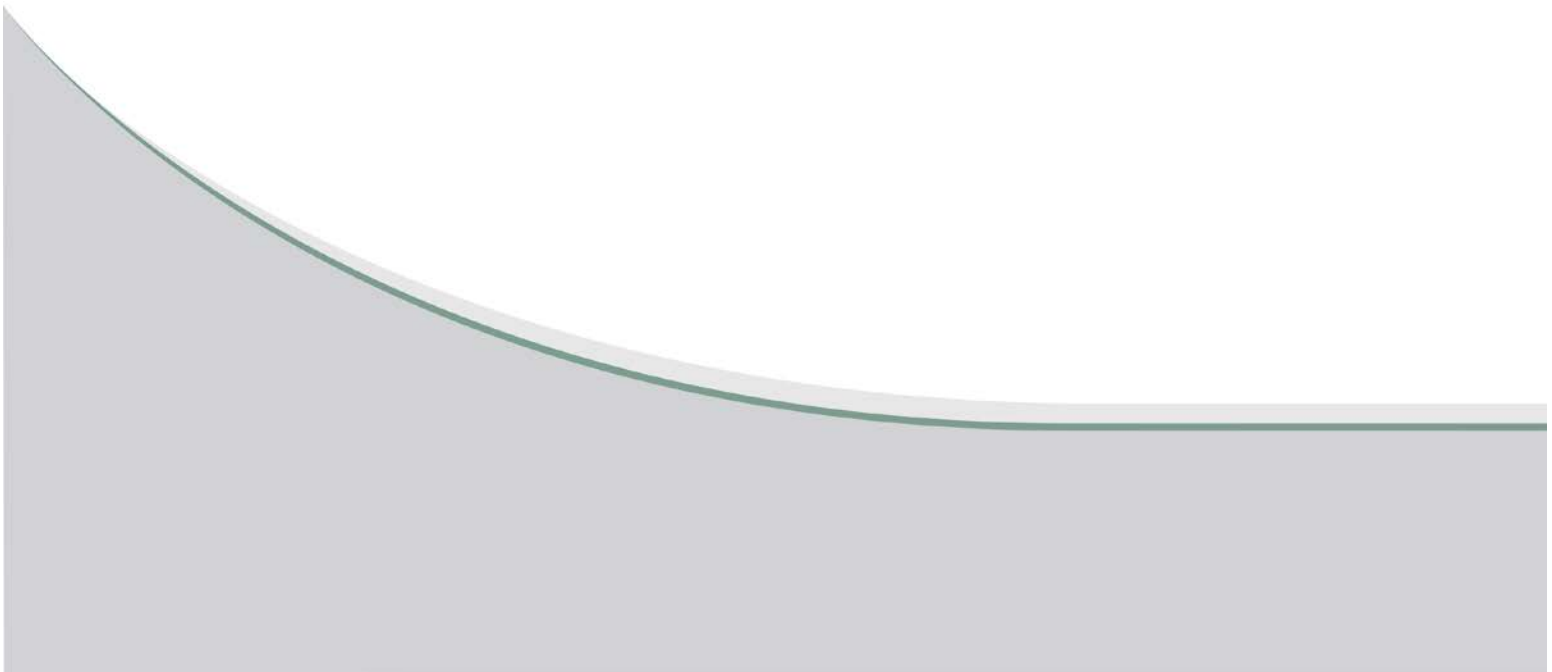
¹ - 24 Hour sample collected every two out of three days, synchronized with the NAPS schedule (with numerous exceptions)

² - 24 Hour sample collected every three days, synchronized with the NAPS schedule (with numerous exceptions)

³ - 24 Hour sample collected every second day

¹³ - As guidelines (ug/m3): MAL: 24hr-0.300

CONSERVATION DATA CENTRE



Gene Senior

From: Friesen, Chris (SD) <Chris.Friesen@gov.mb.ca>
Sent: Monday, October 30, 2017 9:05 AM
To: 'Gene Senior'
Subject: RE: CDC data request: Insectin Control Branch headquarters (Winnipeg)
Attachments: Insect Control_MBCDC_20171030.xlsx

Gene

Attached is a table showing the known occurrences within Winnipeg.

Chris Friesen
Coordinator
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
<http://www.manitoba.ca/sd/cdc/>

From: Gene Senior [mailto:GSenior@kgsgroup.com]
Sent: October-19-17 3:02 PM
To: Friesen, Chris (SD) <Chris.Friesen@gov.mb.ca>
Subject: RE: CDC data request: Insectin Control Branch headquarters (Winnipeg)

Hi Chris,
We are expanding our study area and I need to address species of conservation concern now within a regional context – i.e. Winnipeg.

Could you provide me with a list of Species of conservation concern within the City?

Thanks,
Gene

From: Friesen, Chris (SD) [mailto:Chris.Friesen@gov.mb.ca]
Sent: Monday, February 06, 2017 8:57 AM
To: 'Gene Senior'
Subject: RE: CDC data request: Insectin Control Branch headquarters (Winnipeg)

Gene

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's rare species database and found no occurrences at this time for your area of interest.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre at the time of the request. These data are dependent on the research and observations of CDC staff and others who have shared their data, and reflect our current state of knowledge. **An absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present;** in many areas, comprehensive surveys have never been completed. Therefore, this information should be regarded neither as a final statement on the occurrence of any species of concern, nor as a substitute for on-site surveys for species as part of environmental assessments.

Because the Manitoba CDC's Biotics database is continually updated and because information requests are evaluated by type of action, any given response is only appropriate for its respective request. Please contact the Manitoba CDC for an update on this natural heritage information if more than six months pass before it is utilized.

Third party requests for products wholly or partially derived from Biotics must be approved by the Manitoba CDC before information is released. Once approved, the primary user will identify the Manitoba CDC as data contributors on any map or publication using Biotics data, as follows as: Data developed by the Manitoba Conservation Data Centre; Wildlife & Fisheries Branch, Manitoba Sustainable Development.

This letter is for information purposes only - it does not constitute consent or approval of the proposed project or activity, nor does it negate the need for any permits or approvals required by the Province of Manitoba.

We would be interested in receiving a copy of the results of any field surveys that you may undertake, to update our database with the most current knowledge of the area.

If you have any questions or require further information please contact me directly at (204) 945-7747.

Chris Friesen
Coordinator
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
<http://www.manitoba.ca/conservation/cdc/>

From: Gene Senior [<mailto:GSenior@ksgsgroup.com>]
Sent: January-27-17 2:23 PM
To: Friesen, Chris (SD)
Subject: CDC data request: Insectin Control Branch headquarters (Winnipeg)

Chris:

KGS Group is working on a project for the City of Winnipeg, Insect Control Branch.

We are requesting information regarding the locations of any plant, wildlife or aquatic Species at Risk occurrences on or near the project land. The information will be used to assess potential project impacts on species at risk and their habitat (if any) and to develop appropriate mitigation measures and follow-up.

The project location is :

5516775.00 m N
635750.00 m E
UTM Zone 14

I have attached a zipfile of the shp for your use as well as a screenshot showing the site and proposed infrastructure locations.

Our preference is to receive the data by email and for the data to be presented in Microsoft Excel Spreadsheet (providing the location of each occurrence).

Thanks!

Gene Senior <gseunior@ksgsgroup.com>
Environmental Scientist

| Category | Scientific Name | Common Name | SRANK | ESEA | SARA | COSEWIC |
|-----------|--|-----------------------------|---------|------------|-----------------|-----------------|
| Amphibian | <i>Lithobates pipiens</i> | Northern Leopard Frog | S4 | | Special Concern | Special Concern |
| Bird | <i>Accipiter cooperii</i> | Cooper's Hawk | S4B | | | |
| Bird | <i>Antrorstomus vociferus</i> | Whip-poor-will | S3B | Threatened | Threatened | Threatened |
| Bird | <i>Cardellina canadensis</i> | Canada Warbler | S3B | Threatened | Threatened | Threatened |
| Bird | <i>Cardinalis cardinalis</i> | Northern Cardinal | S1B,SUN | | | |
| Bird | <i>Chaetura pelagica</i> | Chimney Swift | S2B | Threatened | Threatened | Threatened |
| Bird | <i>Chordeiles minor</i> | Common Nighthawk | S3B | Threatened | Threatened | Threatened |
| Bird | <i>Contopus virens</i> | Eastern Wood-pewee | S4B | | | Special Concern |
| Bird | <i>Coturnicops noveboracensis</i> | Yellow Rail | S3B | | Special Concern | Special Concern |
| Bird | <i>Dolichonyx oryzivorus</i> | Bobolink | S4B | | | Threatened |
| Bird | <i>Falco peregrinus anatum</i> | Peregrine Falcon | S1B | Endangered | Special Concern | Special Concern |
| Bird | <i>Hirundo rustica</i> | Barn Swallow | S4B | | | Threatened |
| Bird | <i>Lanius ludovicianus migrans</i> | Loggerhead Shrike | S1B | Endangered | Endangered | null |
| Bird | <i>Melanerpes erythrocephalus</i> | Red-headed Woodpecker | S3B | Threatened | Threatened | Threatened |
| Bird | <i>Riparia riparia</i> | Bank Swallow | S5B | | | Threatened |
| Bird | <i>Strix varia</i> | Barred Owl | S4 | | | |
| Fish | <i>Ichthyomyzon castaneus</i> | Chestnut Lamprey | SU | | | |
| Insect | <i>Stylurus amnicola</i> | Riverine Clubtail | S3 | | | |
| Mussel | <i>Lasmigona complanata</i> | White Heelsplitter | S3 | | | |
| Mussel | <i>Ligumia recta</i> | Black Sandshell | S3 | | | |
| Mussel | <i>Quadrula quadrula</i> | Mapleleaf Mussel | S1 | Endangered | Endangered | Endangered |
| Plant | <i>Agalinis tenuifolia</i> | Narrow-leaved Agalinis | S2S3 | | | |
| Plant | <i>Agrimonia gryposepala</i> | Common Agrimony | S1S2 | | | |
| Plant | <i>Amorpha fruticosa</i> | False Indigo | S1S2 | | | |
| Plant | <i>Arisaema triphyllum ssp. triphyllum</i> | Jack-in-the-pulpit | S1S2 | | | |
| Plant | <i>Asclepias verticillata</i> | Whorled Milkweed | S3 | | | |
| Plant | <i>Boltonia asteroides var. recognita</i> | White Boltonia | S2S3 | | | |
| Plant | <i>Bouteloua curtipendula</i> | Side-oats Grama | S2 | | | |
| Plant | <i>Carex cristatella</i> | Crested Sedge | S1? | | | |
| Plant | <i>Carex echinodes</i> | Quill Sedge | SNR | | | |
| Plant | <i>Carex projecta</i> | Necklace Sedge | S3? | | | |
| Plant | <i>Carex vulpinoidea</i> | Fox Sedge | S3 | | | |
| Plant | <i>Clematis ligusticifolia</i> | Western Virgin's-bower | S1 | | | |
| Plant | <i>Clematis virginiana</i> | Virgin's-bower | S2? | | | |
| Plant | <i>Corispermum americanum var. americanum</i> | American Bugseed | S3 | | | |
| Plant | <i>Cyperus erythrorhizos</i> | Red-root Flatsedge | S1 | | | |
| Plant | <i>Desmodium canadense</i> | Beggar's-lice | S2 | | | |
| Plant | <i>Festuca hallii</i> | Plains Rough Fescue | S3 | | | |
| Plant | <i>Gentiana puberulenta</i> | Downy Gentian | S2 | | | |
| Plant | <i>Helianthus pauciflorus ssp. pauciflorus</i> | Stiff Sunflower | SU | | | |
| Plant | <i>Heteranthera dubia</i> | Water Star-grass | S2S3 | | | |
| Plant | <i>Hypoxis hirsuta</i> | Yellow Stargrass | S3S4 | | | |
| Plant | <i>Leersia oryzoides</i> | Rice Cutgrass | S3 | | | |
| Plant | <i>Leersia oryzoides</i> | Rice Cutgrass | S3 | | | |
| Plant | <i>Menispermum canadense</i> | Canada Moonseed | S3 | | | |
| Plant | <i>Nassella viridula</i> | Green Needle Grass | S3S4 | | | |
| Plant | <i>Orobanche uniflora</i> | One-flowered Broom-rape | S1 | | | |
| Plant | <i>Sanguinaria canadensis</i> | Blood-root | S2 | | | |
| Plant | <i>Sceptridium multifidum</i> | Leathery Grape-fern | S3 | | | |
| Plant | <i>Sisyrinchium campestre</i> | White-eyed Grass | S3 | | | |
| Plant | <i>Sporobolus neglectus</i> | Annual Dropseed | S2S3 | | | |
| Plant | <i>Symphyotrichum sericeum</i> | Western Silvery Aster | S2S3 | Threatened | Threatened | Threatened |
| Plant | <i>Viola labradorica</i> | Early Blue Violet | S3 | | | |
| Reptile | <i>Chelydra serpentina</i> | Snapping Turtle | S3 | | Special Concern | Special Concern |
| Reptile | <i>Snake Hibernaculum</i> | Snake Hibernaculum | SNR | | | |
| Reptile | <i>Thamnophis radix</i> | Western Plains Garter Snake | S4 | | | |

HERITAGE RESOURCES BRANCH

Gene Senior

From: McClean, Heather (SCH) <Heather.McClean@gov.mb.ca>
Sent: Monday, January 30, 2017 9:27 AM
To: 'Gene Senior'
Subject: RE: Heritage data request: Insect Control Branch headquarters

Hi Gene – a search of the database reveals that there are no known heritage resources located within the study area.

Thank you.

Heather McClean

Heritage Resources Registrar
Historical Assessment Services
Historic Resources Branch
Main Floor, 213 Notre Dame Avenue
Winnipeg MB R3B 1N3
Heather.McClean@gov.mb.ca
Phone: (204) 945-7146
Fax: (204) 948-2384

From: Gene Senior [<mailto:GSenior@kgsgroup.com>]
Sent: January-27-17 12:49 PM
To: McClean, Heather (SCH)
Subject: Heritage data request: Insect Control Branch headquarters

Heather,

KGS Group is working on a project for the new Insect Control Branch headquarters for the City of Winnipeg.

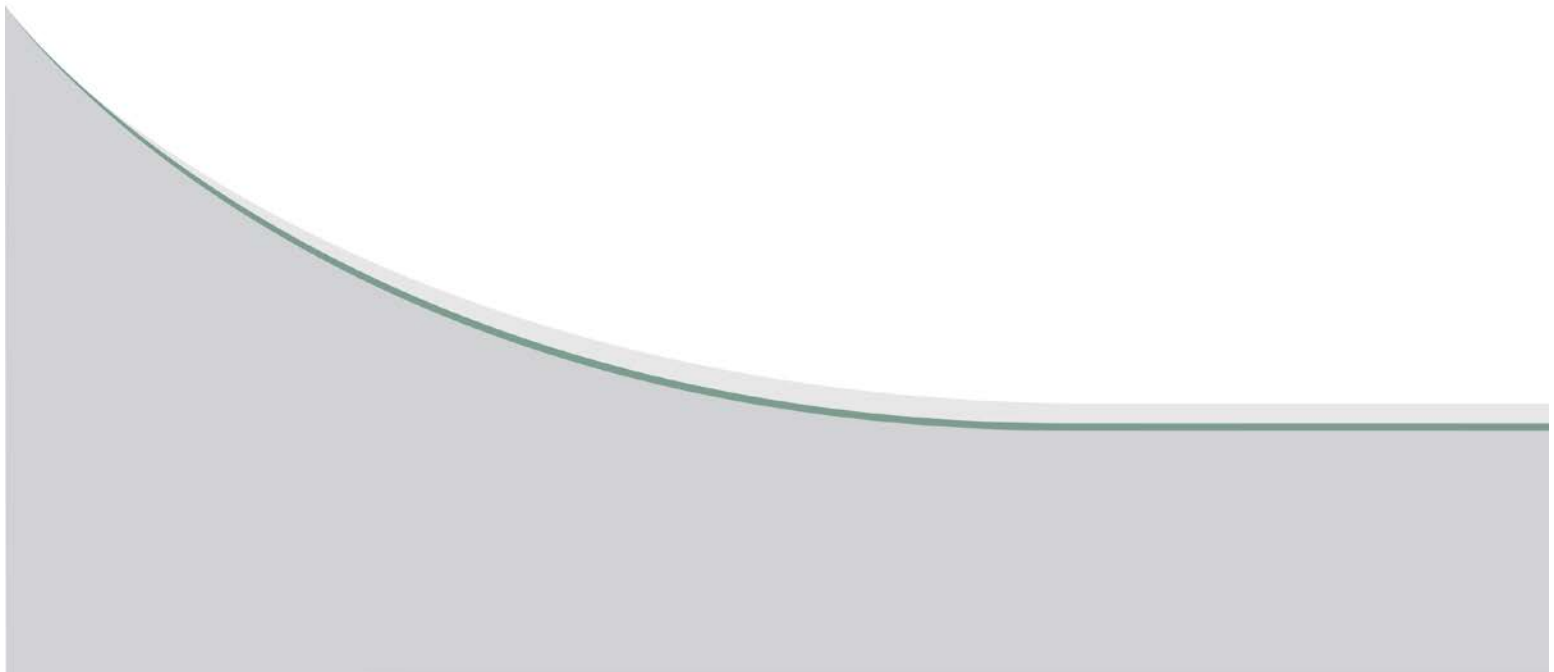
We are requesting a location and description of any known heritage or archaeological resources located on or near the project land. The information will be used to assess potential project impacts on heritage and archaeological resources (if any) and to develop appropriate mitigation measures and follow-up.

I have attached a ZIP of the SHP files for your use as well as a screenshot showing the site and proposed infrastructure locations.

Can you please check the heritage database for the occurrence of known heritage or archaeological resources located within the study area.

Thanks,
Gene

NAV CANADA



From: Customer Service Centre/ Service à la clientèle service@navcanada.ca
Subject: Voice Mail
Date: February 17, 2016 at 9:36 AM
To: jason@1x1architecture.ca



Good morning,

Thank you for contacting NAV CANADA. .

Development and construction proposals involving an aerodrome require two submissions – one to NAV CANADA Land Use and another to Transport Canada. While the forms are similar, NAV CANADA and Transport Canada assess for different concerns.

NAV CANADA assesses the proposal for potential impacts to the Air Navigation System. Transport Canada's responsibility is to assess for marking, lighting and regulatory requirements.

Details on the NAV CANADA Land Use program, including forms and submission instructions, as well as links to Transport Canada are available from NAV CANADA's website at:

<http://www.navcanada.ca/en/products-and-services/Pages/land-use-program.aspx>

Completed NAV CANADA forms may be submitted electronically via email to landuse@navcanada.ca

If you have specific questions about the submission process, please contact the NAV CANADA Land Use office at their email or by phone at 1-866-577-0247.

Regards,

John Michael (J.M.) Fleming

NAV CANADA
Customer Contact Centre – Centre de contact avec la clientèle
1-800-876-4693
Toll-free Fax / Télécopieur sans frais: 1-877-663-6656
Direct Fax / Télécopieur direct: 613-563-3426

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From: Jason Kun jason@1x1architecture.ca
Subject: Fwd: 16-0514 CWG2 - (City of Winnipeg Heli Relocation)
Date: February 24, 2016 at 10:14 AM
To: Jason Bell jbell@winnipeg.ca
Cc: Nawolsky, Ken KNawolsky@winnipeg.ca



Hi Jason,

For your information.

I have made some initial enquiries with NAVCanada to see if the location of the Insect Control Branch is fundamentally acceptable from a NAVCanada perspective. They don't comment on by-law nuisance setbacks etc. but we can work through that once we get going.

Thanks,

Jason

Begin forwarded message:

From: "Trandafilovski, Aleksandar" <Aleksandar.Trandafilovski@navcanada.ca>
Subject: 16-0514 CWG2 - (City of Winnipeg Heli Relocation)
Date: February 24, 2016 at 10:12:07 AM CST
To: Jason Kun <jason@1x1architecture.ca>

Hello Jason,

I have created and processed the above file for your preliminary project. You may expect my response letter in about 2 weeks.

Thanks

Aleksandar Trandafilovski
Land Use Specialist
Aeronautical Information Management (AIM)
NAV CANADA
tel (613) 248-4009 / toll-free (866) 577-0247
fax (613) 248-4094
e-mail: aleksandar.trandafilovski@navcanada.ca

From: Jason Kun [<mailto:jason@1x1architecture.ca>]
Sent: February-22-16 9:57 AM
To: Trandafilovski, Aleksandar
Cc: Jason Bell
Subject: 16-0514 LUF

Hi Alexandar,

Please see the attached pdf with approximate coordinates shown. The coordinates are UTM Zone 14, and are based on visual approximation of the City of Winnipeg property limits in the area. They should not be considered final or legal coordinates. The site elevation varies around the 232.0m mark. We anticipate a A 233.0 Main floor slab elevation with a buildings being maximum of $\pm 50'$ (15.25 metres). Do I need to fill out the Land-Use Form at this time? Unfortunately I don't have a lot of the required information (address/contact info etc. as we have not begun working on the project. As I mentioned on the phone we are doing a class "C" cost feasibility study so our main goal is to determine at a fundamental of the location would be acceptable from a NAV/Canada perspective.

NAV Canada perspective.

Let me know if you need any more information.

Thanks,

Jason

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jason kun MAA MRAIC
120 Fort Street, Suite 103 Winnipeg, Manitoba R3C 1C7 204 318 2010 IxIarchitecture.ca

From: Trandafilovski, Aleksandar Aleksandar.Trandafilovski@navcanada.ca
Subject: 16-0514: Heliport Relocation (CWG2 - (City of Winnipeg Heli Relocation)) - Winnipeg, MB
Date: March 7, 2016 at 5:50 AM
To: Jason Kun jason@1x1architecture.ca
Cc: , Northern and Prairie Region, Transport Canada casprn-sacrpn@tc.gc.ca

TA

Hello Jason,

Please find attached a letter from NAV CANADA regarding your heliport relocation (CWG2 - (City of Winnipeg Heli Relocation)) submitted on 2016-02-24.

If you have any questions, please don't hesitate to contact me.

Regards,

Alex Trandafilovski
Land Use Specialist, Aeronautical Information Management (AIM)
NAV CANADA
tel (613) 248-4009 / toll-free (866) 577-0247
fax (613) 248-4094
e-mail: aleksandar.trandafilovski@navcanada.ca

This electronic message, as well as any transmitted files included in the electronic message, may contain privileged or confidential information and is intended solely for the use of the individual(s) or entity to which it is addressed. If you have received this electronic message in error please notify the sender immediately and delete the electronic message. Any unauthorized copying, disclosure or distribution of the electronic message is strictly forbidden. NAV CANADA accepts no liability for any damage caused by any virus and/or other malicious code transmitted by this electronic communication.

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March 7, 2016

Your file
CWG2 - (City of Winnipeg Heli Relocation)
Our file
16-0514

Mr. Jason Kun
1X1 Architecture Inc.
120 Fort Street, Suite 103
Winnipeg, MB
R3C 1C7

RE: Misc.: Heliport Relocation - Winnipeg, MB
(See attached spreadsheet)

Mr. Kun,

We have evaluated the captioned proposal and NAV CANADA has no objection to the project as submitted. Please note that a formal Land Use application must be filed with NAV CANADA once more details are known about this project, since we will need to update our publications in regards to the proposed heliport relocation.

If you should decide not to proceed with this project, please advise us accordingly so that we may formally close the file. If you have any questions, contact the Land Use Department by telephone at 1-866-577-0247 or e-mail at landuse@navcanada.ca.

NAV CANADA's land use evaluation is valid for a period of 12 months. Our assessment is limited to the impact of the proposed physical structure on the air navigation system and installations; it neither constitutes nor replaces any approvals or permits required by Transport Canada, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Industry Canada addresses any spectrum

management issues that may arise from your proposal and consults with NAV CANADA Engineering as deemed necessary.

Yours truly,

<Original
signed by>

David Legault | NAV CANADA
Manager, AIM Data Validation and Publishing

cc NOPR - Northern and Prairie Region, Transport Canada

1601 Tom Roberts, P.O. Box 9824 Stn T, Ottawa, ON, K1G 6R2
Telephone: +1 (866) 577-0247, Fax: +1 (613) 248-4094
Z-LDU-101 Version 13.5

1601 Tom Roberts, C.P. 9824 Succursale T, Ottawa, Ontario, K1G 6R2
Téléphone: +1 (866) 577-0247, Télécopieur: +1 (613) 248-4094

12 July 2013



16-0514 Coords.xls

APPENDIX I
PHOTOLOG

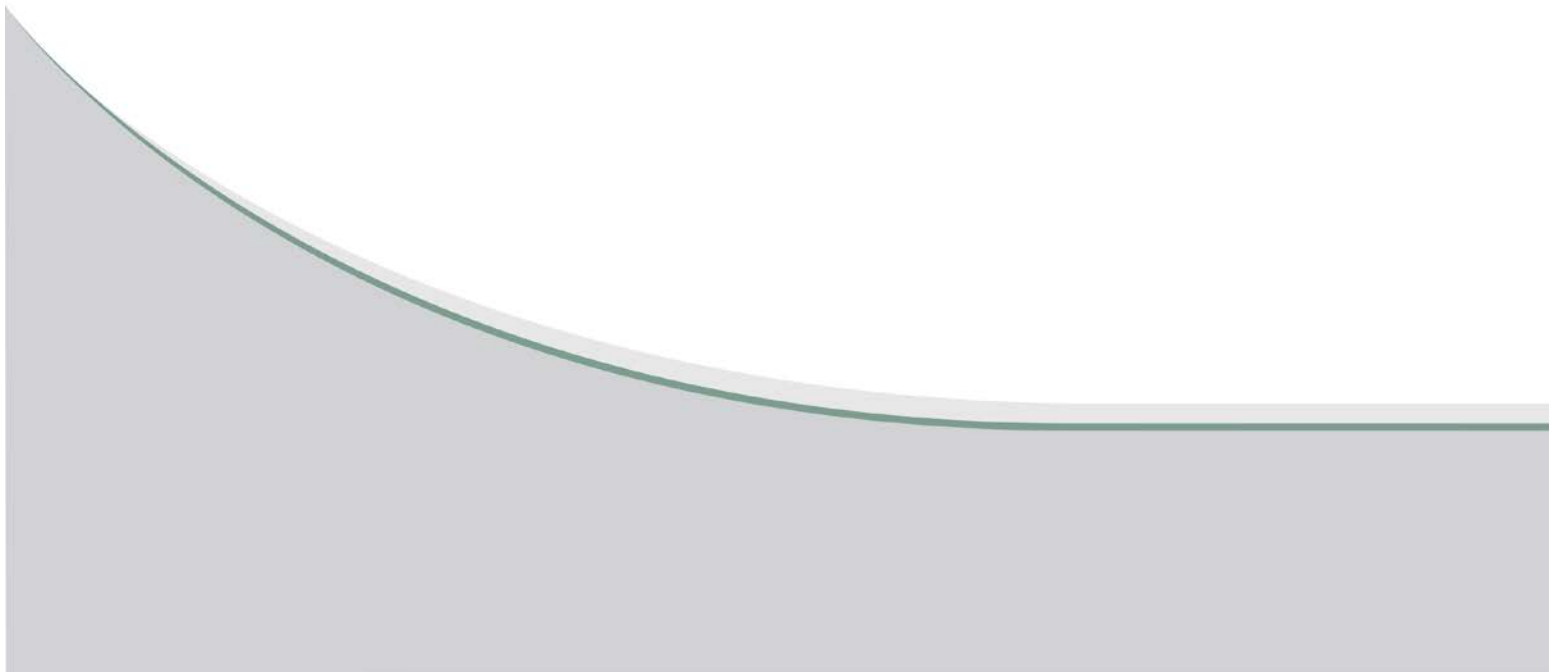




Photo 1 – Project site looking north



Photo 2 – Project site looking east



Photo 3 –Project site looking south



Photo 4 –Project site looking west

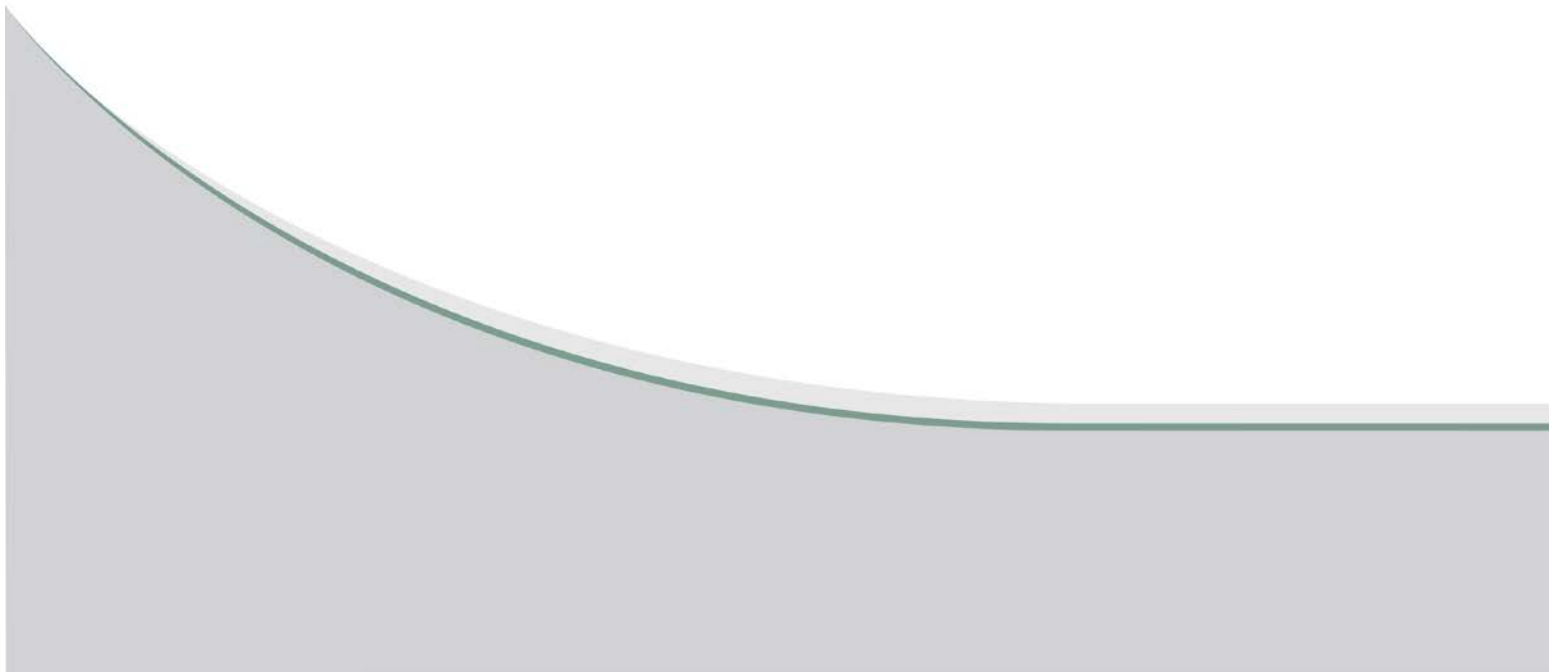


Photo 5 – Vegetation along St Mary’s Road



Photo 6 – Vegetation along St Mary’s Road

APPENDIX J
STATUS OF TITLE



STATUS OF TITLE

Title Number **1604659/1**
Title Status **Accepted**
Client File **Sept 11-15**

The Property Registry

A Service Provider for the Province of Manitoba



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

THE CITY OF WINNIPEG

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

PARCELS A AND B PLAN 10523 WLTO
EXC OUT OF SAID PARCEL A FIRSTLY: PUBLIC ROAD PLAN 32896 WLTO AND
SECONDLY: PARCEL PLAN 36488 WLTO
IN RL 151 TO 155 AND 157 TO 159 PARISH OF ST NORBERT

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **222609/1**
Instrument Status: **Accepted**

Registration Date: 1972-04-15
From/By: THE MANITOBA TELEPHONE SYSTEM
To:

Amount:
Notes: AFF: PART PCL A
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-4854/1**
Instrument Status: **Accepted**

Registration Date: 1986-01-16
From/By: MANITOBA TELEPHONE SYSTEM
To:

Amount:
Notes: AFF: PART PCL A
Description: No description

Instrument Type: **Builders Lien**
Registration Number: **4706594/1**
Instrument Status: **Accepted**

Registration Date: 2016-03-24
From/By: PRESET PILING LTD.
Against: THE CITY OF WINNIPEG

Amount: \$5,763,391.09
Notes: No notes
Description: No description

3. ADDRESSES FOR SERVICE

THE CITY OF WINNIPEG
510 MAIN ST
WINNIPEG MB
R3B 1B9

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Winnipeg

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

1414715/1 Balance

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title**
Registration Number: **2320067/1**

Registration Date: 1998-11-03
From/By: THE CITY OF WINNIPEG
To:
Amount:

10. LAND INDEX

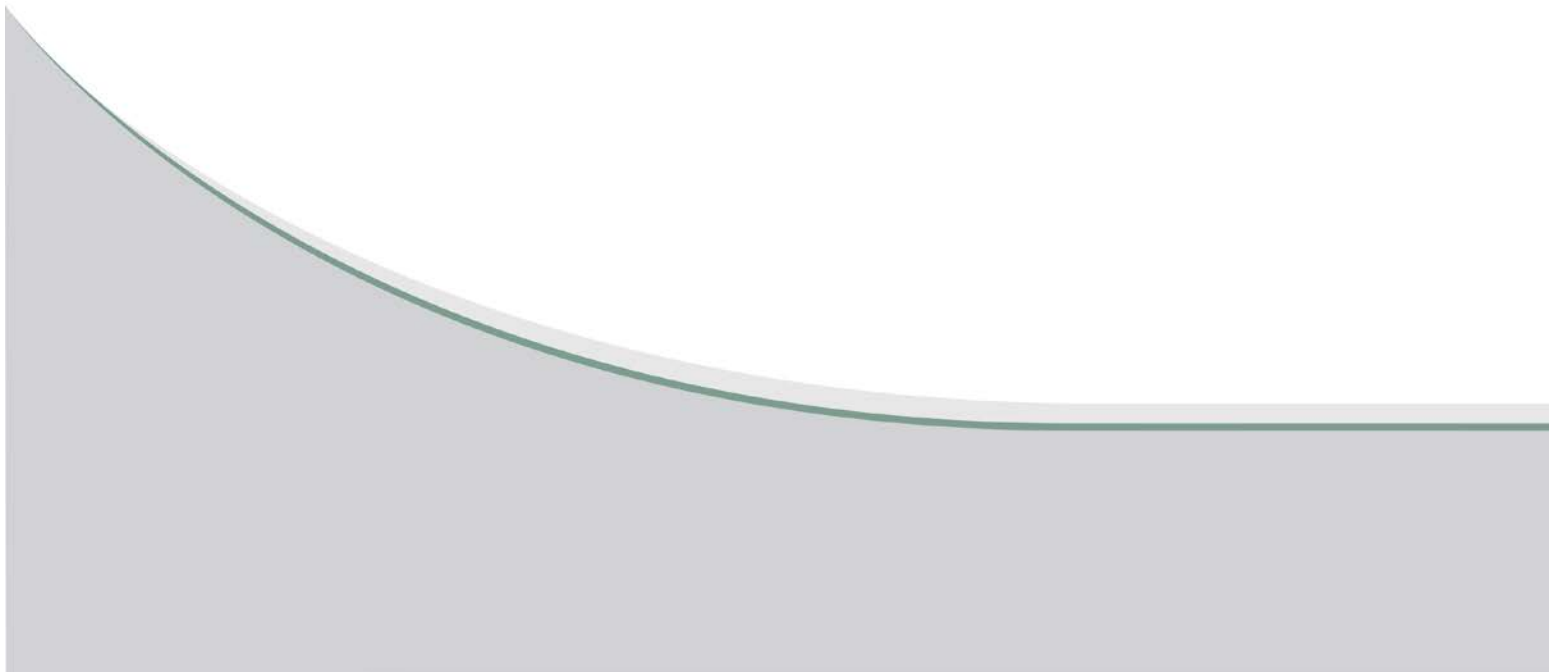
Lot A Plan 10523
EXC PLANS 32896 AND 36488

Lot B Plan 10523

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 1604659/1

APPENDIX K

MANITOBA BREEDING BIRD ATLAS SQUARE SUMMARY SHEET 14PA31





Square Summary (14PA31)

| #species | | | #hours | #pc done | |
|----------|------|------|--------|----------|-------|
| poss | prob | conf | total | road | offrd |
| 17 | 21 | 56 | 94 | 101 | 15 1 |

Region summary (#3: Red River Valley)

| #squares | #sq with data | #species | #pc done | target #pc |
|----------|---------------|----------|----------|------------|
| 140 | 139 | 199 | 2670 | 525 |

Target number of point counts in this square: 15 road side, 0 off road.

Approximate time allocation for general atlasing:: Mature broadleaf forest: 1%, Agriculture / open country: 15%, Urban / unclassified: 82%. Refer to the atlas PDF maps and online resources to locate habitats.

| SPECIES | Code | % | SPECIES | Code | % | SPECIES | Code | % |
|-------------------------|------|----|--------------------------|------|----|--------------------------|------|----|
| Canada Goose | FY | 90 | Clark's Grebe † | | 0 | American Coot | FY | 32 |
| Wood Duck | FY | 44 | American White Pelican § | | 5 | Sandhill Crane | | 37 |
| Gadwall | | 23 | Double-cr. Cormorant § | | 5 | Piping Plover † | | 0 |
| American Wigeon | | 12 | American Bittern | H | 28 | Killdeer | FY | 97 |
| Mallard | FY | 98 | Least Bittern † | | 2 | American Avocet | | 7 |
| <u>Blue-winged Teal</u> | | 64 | Great Blue Heron § | P | 22 | Spotted Sandpiper | P | 48 |
| Northern Shoveler | | 46 | Great Egret † | | 5 | Solitary Sandpiper † | | <1 |
| Northern Pintail | | 19 | Cattle Egret † | | <1 | Greater Yellowlegs † | | <1 |
| Green-winged Teal | | 31 | Green Heron † | P | <1 | Willet | | 15 |
| Canvasback | | 14 | Black-crown. N.-Heron § | | 12 | <u>Upland Sandpiper</u> | | 50 |
| Redhead | | 20 | White-faced Ibis † | | <1 | Marbled Godwit | | 47 |
| Ring-necked Duck | | 23 | Turkey Vulture | H | 23 | Semipalmated Sandpiper † | | 0 |
| Lesser Scaup | | 20 | Osprey | NY | 7 | <u>Wilson's Snipe</u> | | 79 |
| Bufflehead | | 2 | Bald Eagle | FY | 35 | American Woodcock | | 20 |
| Common Goldeneye | | 5 | Northern Harrier | H | 84 | Wilson's Phalarope | | 18 |
| Hooded Merganser | FY | 37 | Sharp-shinned Hawk | | 7 | Bonaparte's Gull † | | 0 |
| Common Merganser | | <1 | Cooper's Hawk | NY | 33 | Franklin's Gull § | | 8 |
| Ruddy Duck | | 17 | Northern Goshawk | | 0 | Ring-billed Gull § | | 14 |
| Gray Partridge | | 35 | Broad-winged Hawk | NY | 18 | Herring Gull § | | 5 |
| Ring-necked Pheasant † | | 0 | Swainson's Hawk | AE | 28 | Caspian Tern § | | <1 |
| Ruffed Grouse | H | 20 | Red-tailed Hawk | T | 87 | Black Tern § | | 18 |
| Sharp-tailed Grouse | D | 30 | Ferruginous Hawk † | | 0 | Common Tern § | | 5 |
| Wild Turkey | FY | 17 | Rough-legged Hawk † | | 0 | Forster's Tern § | | 13 |
| Common Loon | | 2 | American Kestrel | CF | 77 | Rock Pigeon | AE | 82 |
| Pied-billed Grebe | | 26 | Merlin | AE | 56 | Mourning Dove | D | 98 |
| Horned Grebe □ | | 4 | Peregrine Falcon □ | FY | 4 | Black-billed Cuckoo | H | 52 |
| Red-necked Grebe § | H | 10 | Yellow Rail □ | | 12 | Eastern Screech-Owl | H | 4 |
| Eared Grebe § | | 7 | Virginia Rail | | 14 | Great Horned Owl | AE | 59 |
| Western Grebe § | | 7 | Sora | T | 57 | Northern Hawk Owl □ | | 0 |

Manitoba Breeding Bird Atlas - Summary Sheet for Square 14PA31 (page 2 of 3)

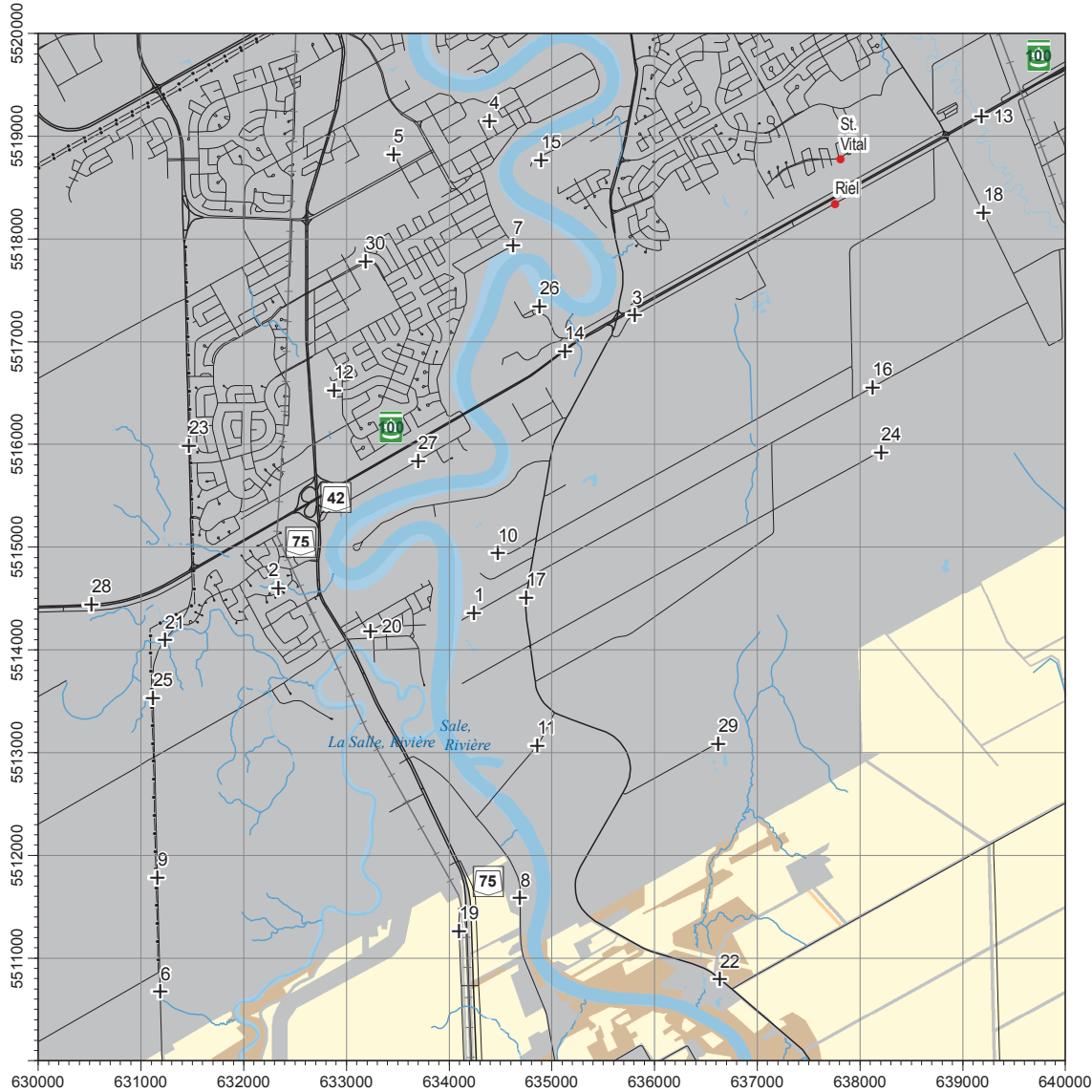
| SPECIES | Code | % | SPECIES | Code | % | SPECIES | Code | % |
|---------------------------|------|----|-------------------------|------|----|--------------------------|------|----|
| Burrowing Owl † | | 0 | Eastern Kingbird | D | 97 | Eastern Bluebird | H | 47 |
| Barred Owl ☐ | | 7 | Loggerhead Shrike † | | 2 | Mountain Bluebird | | 0 |
| Great Gray Owl ☐ | | 2 | Yellow-throated Vireo | T | 38 | Veery | | 30 |
| Long-eared Owl ☐ | NY | 15 | Blue-headed Vireo | | <1 | Swainson's Thrush | | 4 |
| Short-eared Owl ☐ | | 10 | Warbling Vireo | T | 97 | Hermit Thrush | | 12 |
| Northern Saw-whet Owl | | 10 | Philadelphia Vireo | | 9 | American Robin | NE | 96 |
| Common Nighthawk ☐ | | 4 | Red-eyed Vireo | FY | 87 | Gray Catbird | CF | 92 |
| Whip-poor-will ☐ | | 10 | Gray Jay | | <1 | Brown Thrasher | S | 46 |
| Chimney Swift ☐ | AE | 9 | Blue Jay | FY | 82 | European Starling | CF | 93 |
| Ruby-throated Hummingbird | H | 38 | Black-billed Magpie | AE | 84 | Sprague's Pipit ‡☐ | | 2 |
| Belted Kingfisher | AE | 36 | American Crow | FY | 97 | Cedar Waxwing | V | 74 |
| Red-headed Woodpecker ☐ | | 33 | Common Raven | AE | 88 | Golden-winged Warbler ‡☐ | | 1 |
| Yellow-bellied Sapsucker | NY | 55 | <u>Horned Lark</u> | | 56 | Tennessee Warbler | H | 17 |
| Downy Woodpecker | FY | 63 | Purple Martin § | S | 50 | Orange-crowned Warbler | | 2 |
| Hairy Woodpecker | N | 61 | Tree Swallow | AE | 79 | Nashville Warbler | | 10 |
| Am. Three-toed Woodp. | | 0 | North. Rgh-wing Swallow | | 4 | Yellow Warbler | CF | 97 |
| Black-backed Woodpecker | | 0 | Bank Swallow § | AE | 35 | Chestnut-sided Warbler | | 27 |
| Northern Flicker | H | 77 | Cliff Swallow § | NY | 51 | Cape May Warbler | | <1 |
| Pileated Woodpecker | V | 26 | Barn Swallow | AE | 98 | Yellow-rumped Warbler | | 8 |
| Olive-sided Flycatcher ☐ | | 2 | Black-capped Chickadee | CF | 74 | Black-and-white Warbler | | 26 |
| Eastern Wood-Pewee | | 49 | Red-breasted Nuthatch | D | 15 | American Redstart | S | 45 |
| Yellow-bellied Flycatcher | | 3 | White-breasted Nuthatch | NB | 57 | Ovenbird | | 26 |
| Alder Flycatcher | S | 53 | Brown Creeper | | 1 | Northern Waterthrush | | 5 |
| Willow Flycatcher ‡☐ | | 1 | House Wren | CF | 94 | Connecticut Warbler | | 1 |
| Least Flycatcher | AE | 97 | Winter Wren | | <1 | Mourning Warbler | | 5 |
| Eastern Phoebe | NY | 74 | Sedge Wren | N | 66 | Common Yellowthroat | CF | 85 |
| Say's Phoebe ‡☐ | | 0 | Marsh Wren | N | 43 | Eastern Towhee | | 9 |
| Great Crested Flycatcher | T | 74 | Golden-crowned Kinglet | | <1 | Chipping Sparrow | NY | 87 |
| Western Kingbird | CF | 76 | Ruby-crowned Kinglet | | 2 | Clay-colored Sparrow | CF | 99 |

Manitoba Breeding Bird Atlas - Summary Sheet for Square 14PA31 (page 3 of 3)

| SPECIES | Code | % | SPECIES | Code | % |
|-------------------------------|------|-----|--------------------------|------|----|
| Vesper Sparrow | T | 82 | White-winged Crossbill ♂ | | 1 |
| Lark Sparrow | CF | 34 | Pine Siskin | | 20 |
| Savannah Sparrow | CF | 98 | American Goldfinch | AE | 97 |
| Grasshopper Sparrow ‡ | | 2 | Evening Grosbeak | | 2 |
| Baird's Sparrow † | | 0 | House Sparrow | CF | 89 |
| Le Conte's Sparrow | S | 60 | | | |
| Nelson's Sparrow | | 22 | | | |
| Song Sparrow | NE | 99 | | | |
| Lincoln's Sparrow | | 6 | | | |
| Swamp Sparrow | | 34 | | | |
| White-throated Sparrow | | 25 | | | |
| Dark-eyed Junco | | 4 | | | |
| Chestnut-collared Longspur ‡ | | 0 | | | |
| Scarlet Tanager ♂ | | 8 | | | |
| <u>Rose-breasted Grosbeak</u> | | 65 | | | |
| Indigo Bunting | A | 13 | | | |
| Dickcissel † | S | <1 | | | |
| Bobolink | DD | 92 | | | |
| Red-winged Blackbird | CF | 100 | | | |
| Western Meadowlark | P | 97 | | | |
| Yellow-headed Blackbird | | 35 | | | |
| Brewer's Blackbird | P | 97 | | | |
| Common Grackle | CF | 94 | | | |
| Brown-headed Cowbird | FY | 99 | | | |
| Orchard Oriole | CF | 53 | | | |
| Baltimore Oriole | NB | 91 | | | |
| Purple Finch | | 20 | | | |
| House Finch | FY | 25 | | | |
| Red Crossbill † | | 4 | | | |

This list includes all species found during the Manitoba Breeding Bird Atlas (2010-2014) in the region #3 (Red River Valley). Underlined species are those that you should try to add to this square (14PA31). They have not yet been reported during the atlas, but were reported in more than 50% of the squares in this region during the project so far. "Code" is the code for the highest breeding evidence for that species in square 14PA31 during the project so far. The % columns give the percentage of squares in that region where that species was reported during the project (this gives an idea of the expected chance of finding that species in region #3). Rare/Colonial Species Report Forms should be completed for species marked: § (Colonial), ‡ (regionally rare), † (rare in Manitoba) or ♂ (rare in Manitoba, documentation only required for confirmed records). Current as of 22/11/2017. An up-to-date version of this sheet is available from <http://www.birdatlas.mb.ca/mbdata/summaryform.jsp?squareID=14PA31?lang=en>

[[single pages](#)]



Predefined point count coordinates
Coordonnées des points d'écoute prédéterminés

| POINT | EASTING UTM Est | NORTHING UTM Nord |
|-------|--------------------|----------------------|
| 1 | 634244 | 5514361 |
| 2 | 632340 | 5514603 |
| 3 | 635807 | 5517262 |
| 4 | 634395 | 5519152 |
| 5 | 633461 | 5518828 |
| 6 | 631189 | 5510674 |
| 7 | 634624 | 5517939 |
| 8 | 634691 | 5511588 |
| 9 | 631162 | 5511783 |
| 10 | 634477 | 5514946 |
| 11 | 634858 | 5513073 |
| 12 | 632881 | 5516529 |
| 13 | 639187 | 5519198 |
| 14 | 635128 | 5516909 |
| 15 | 634899 | 5518772 |
| 16 | 638125 | 5516558 |
| 17 | 634752 | 5514511 |
| 18 | 639204 | 5518260 |
| 19 | 634098 | 5511264 |
| 20 | 633235 | 5514184 |
| 21 | 631235 | 5514099 |
| 22 | 636637 | 5510797 |
| 23 | 631468 | 5515990 |
| 24 | 638207 | 5515925 |
| 25 | 631120 | 5513532 |
| 26 | 634883 | 5517347 |
| 27 | 633699 | 5515842 |
| 28 | 630517 | 5514443 |
| 29 | 636622 | 5513092 |
| 30 | 633188 | 5517787 |

| Legend | Légende |
|---|---|
| Expressway or highway | Autoroute ou route nationale (asphaltée) |
| Regional or local road | Route régionale ou locale (asphaltée ou non) |
| Rail line | Chemin de fer |
| Utility corridor | Ligne de transport d'énergie |
| Watercourse | Rivière ou ruisseau |
| Mature broadleaf forest | Forêt de feuillus (mature) |
| Young broadleaf forest | Forêt de feuillus (jeune) |
| Mature coniferous forest | Forêt de conifères (mature) |
| Young coniferous forest | Forêt de conifères (jeune) |
| Mature mixed forest | Forêt mixte (mature) |
| Young mixed forest | Forêt mixte (jeune) |
| Shrubland / other | Milieu arbustif / autre |
| Open wetland | Milieu humide (marais) |
| Agriculture / open country | Milieu agricole |
| Urban / unclassified | Milieu urbanisé / non classifié |
| Water | Eau |
| Topographic data: © Government of Manitoba © Natural Resources Canada | Données topographiques: © Gouvernement du Manitoba © Ressources naturelles Canada |

Cartographic production by Bird Studies Canada
 Production cartographique par Études d'oiseaux Canada

Note: This map is only for use by atlas participants in the context of the project. The project partners are in no way responsible for any inaccuracies, mistakes or omissions in the information that appears on this map.

Avis : cette carte ne doit être utilisée que par les participants au projet de l'Atlas des oiseaux nicheurs de Manitoba, et uniquement dans le cadre du projet. Les responsables du projet d'atlas ne peuvent être tenus responsables de toute inexactitude, erreur ou omission concernant les informations apparaissant sur cette carte.

6° Universal Transverse Mercator (UTM) Projection: Zone 14, Central Meridian -99°; North American Datum 1983 (NAD 83)
 Projection universelle transverse de Mercator (UTM) 6° Zone 14, méridien central -99°;
 Système de référence géodésique nord-américain 1983 (NAD 83)



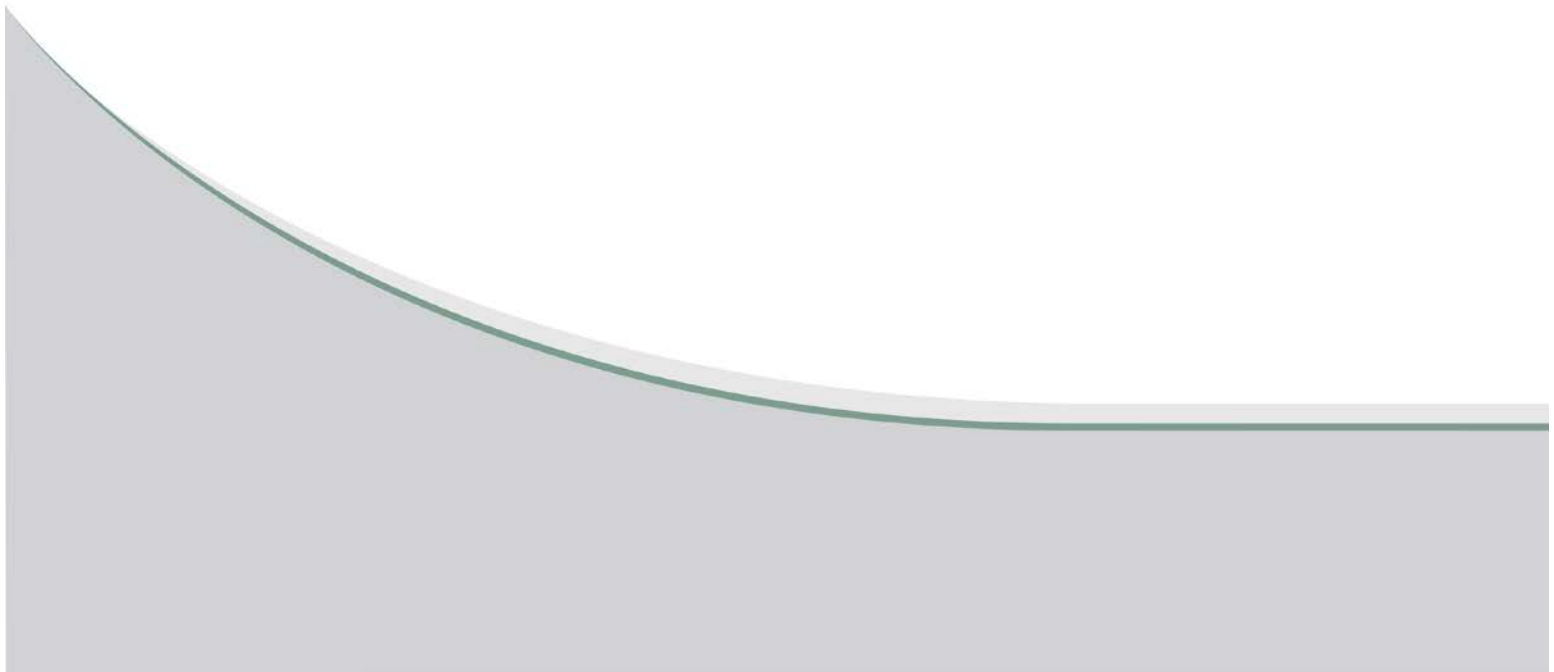
0 1 km

April 2010 / Avril 2010
<http://www.birdatlas.mb.ca/>

| Migratory Birds Found in Manitoba Breeding Bird Region 3, Square 14PA31 | | | | |
|---|--------|---------------------------|--------|----------|
| Region | Square | Species | Max BE | Category |
| 3 | 14PA31 | Canada Goose | FY | CONF |
| 3 | 14PA31 | Wood Duck | FY | CONF |
| 3 | 14PA31 | Mallard | FY | CONF |
| 3 | 14PA31 | Hooded Merganser | FY | CONF |
| 3 | 14PA31 | Red-necked Grebe | H | POSS |
| 3 | 14PA31 | Great Blue Heron | P | PROB |
| 3 | 14PA31 | Green Heron | P | PROB |
| 3 | 14PA31 | Sora | T | PROB |
| 3 | 14PA31 | Killdeer | FY | CONF |
| 3 | 14PA31 | Spotted Sandpiper | P | PROB |
| 3 | 14PA31 | Franklin's Gull | | |
| 3 | 14PA31 | Ring-billed Gull | | |
| 3 | 14PA31 | Mourning Dove | D | PROB |
| 3 | 14PA31 | Black-billed Cuckoo | H | POSS |
| 3 | 14PA31 | Chimney Swift | AE | CONF |
| 3 | 14PA31 | Ruby-throated Hummingbird | H | POSS |
| 3 | 14PA31 | Yellow-bellied Sapsucker | NY | CONF |
| 3 | 14PA31 | Downy Woodpecker | FY | CONF |
| 3 | 14PA31 | Hairy Woodpecker | N | PROB |
| 3 | 14PA31 | Northern Flicker | H | POSS |
| 3 | 14PA31 | Pileated Woodpecker | V | PROB |
| 3 | 14PA31 | Least Flycatcher | AE | CONF |
| 3 | 14PA31 | Eastern Phoebe | NY | CONF |
| 3 | 14PA31 | Great Crested Flycatcher | T | PROB |
| 3 | 14PA31 | Western Kingbird | CF | CONF |
| 3 | 14PA31 | Eastern Kingbird | D | PROB |
| 3 | 14PA31 | Yellow-throated Vireo | T | PROB |
| 3 | 14PA31 | Warbling Vireo | T | PROB |
| 3 | 14PA31 | Red-eyed Vireo | FY | CONF |
| 3 | 14PA31 | Purple Martin | S | POSS |
| 3 | 14PA31 | Tree Swallow | AE | CONF |
| 3 | 14PA31 | Cliff Swallow | NY | CONF |
| 3 | 14PA31 | Red-breasted Nuthatch | D | PROB |
| 3 | 14PA31 | White-breasted Nuthatch | NB | CONF |
| 3 | 14PA31 | House Wren | CF | CONF |
| 3 | 14PA31 | Sedge Wren | N | PROB |
| 3 | 14PA31 | Marsh Wren | N | PROB |
| 3 | 14PA31 | Eastern Bluebird | H | POSS |
| 3 | 14PA31 | Gray Catbird | CF | CONF |
| 3 | 14PA31 | Cedar Waxwing | V | PROB |
| 3 | 14PA31 | Tennessee Warbler | H | POSS |
| 3 | 14PA31 | Yellow Warbler | CF | CONF |
| 3 | 14PA31 | Common Yellowthroat | CF | CONF |
| 3 | 14PA31 | Chipping Sparrow | NY | CONF |
| 3 | 14PA31 | Clay-colored Sparrow | CF | CONF |
| 3 | 14PA31 | Vesper Sparrow | T | PROB |
| 3 | 14PA31 | Lark Sparrow | CF | CONF |
| 3 | 14PA31 | Savannah Sparrow | CF | CONF |
| 3 | 14PA31 | Song Sparrow | NE | CONF |
| 3 | 14PA31 | Indigo Bunting | A | PROB |
| 3 | 14PA31 | Dickcissel | S | POSS |
| 3 | 14PA31 | Western Meadowlark | P | PROB |
| 3 | 14PA31 | Orchard Oriole | CF | CONF |
| 3 | 14PA31 | House Finch | FY | CONF |

Source: Manitoba Breeding Bird Atlas (http://www.birdatlas.mb.ca/index_en.jsp)

APPENDIX L
INDIGENOUS ENGAGEMENT



**INDIGENOUS CONSULTATION LIST
CITY OF WINNIPEG INSECT CONTROL BRANCH RELOCATION
CEAA PROJECT DESCRIPTION**

| ContactGroup | ContactName | Title | AddressLine1 | Town | Province | PostalCode | Phone | Fax |
|--------------------------------------|------------------|-----------|----------------------|--------------------|----------|------------|----------------|----------------|
| Swan Lake First Nation | Francine Meeches | Chief | PO Box 368 | Swan Lake | Manitoba | R0G 2S0 | (204) 836-2101 | (204) 836-2255 |
| Long Plain First Nation | Dennis Meeches | Chief | PO Box 430 | Portage La Prairie | Manitoba | R1N 3B7 | (204) 252-2731 | (204) 252-2012 |
| Roseau River Anishinabe First Nation | Alexander Craig | Chief | PO Box 30 | Genew | Manitoba | ROA 2R0 | (204) 427-2312 | (204) 427-2584 |
| Brokenhead Ojibway Nation | Jim Bear | Chief | General Delivery | Scanterbury | Manitoba | ROE 1W0 | (204) 766-2494 | (204) 766-2306 |
| Manitoba Metis Federation | David Chartrand | President | 300-150 Henry Avenue | Winnipeg | Manitoba | R3B 0J7 | (204) 586-8474 | (204) 947-1816 |

October 27, 2017

File No. 17-0107-016

«ContactGroup»
«AddressLine1»
«Town», «Province»
«PostalCode»

ATTENTION: «ContactName»
«Title»

RE: City of Winnipeg
Insect Control Branch Relocation Project, Duty to Consult

Dear «Salutation»:

KGS Group is submitting this letter on behalf of the City of Winnipeg to inform your community about potential plans to merge and relocate the Insect Control Branch (ICB) heliport and ground operations to city-owned land adjacent to the South End Water Pollution Control Centre (SEWPCC). Based on communications with the Canadian Environmental Assessment Agency (the Agency), the heliport component of the proposed Project meets the definition of a designated project pursuant to item 26(a) of the *Regulations Designating Physical Activities* (Regulations) under the *Canadian Environmental Assessment Act 2012 (CEAA 2012)*. As such, the Agency has determined that the Project, as presented, is a designated physical activity under *CEAA 2012* and the preparation of a formal Project Description is required.

The Agency will use the Project Description to examine whether the Project may cause adverse environmental effects. A determination that an environmental assessment under *CEAA 2012* is not warranted could be made, if it is established through review of the Project Description and public comments received on the Project Description that the Project has no potential to cause significant adverse environmental effects, or has the potential to cause minor environmental effects that can be adequately managed through other existing legislative or regulatory processes. If the proposed Project is determined to be a “development” under *CEAA 2012*, an Environmental Impact Assessment (EIA) would be required.

At this time, the City of Winnipeg is seeking to engage nearby Indigenous groups for input about the Project and to solicit comments or questions. This letter includes project-specific information to help your group determine if the proposed Project may potentially affect your Aboriginal rights or ability to hunt, fish and trap for food and/or carry out traditional activities.

Proposed Project Description

The City of Winnipeg is preparing to relocate the heliport and ground operations facilities of the ICB to a city-owned property northeast of 2641 St. Mary’s Road and adjacent to the SEWPCC (Figure 01). The existing ICB heliport and base of operations for the City of Winnipeg mosquito larviciding program is located

at 3 Grey Street in Winnipeg's Elmwood neighborhood, while a second facility at 1539 Waverley Street functions as the base for the ground operations. Part of the rationale for relocation of the heliport is that the current location is on land the city intends to use for expansion of the Bus Rapid Transit Project. Aside from potential federal regulatory approval under CEAA, the Project will be required to meet Transport Canada safety standards. Due to the large quantity of pesticides that will be stored at the facility, an Environment Act Licence will be required as it would be considered a Bulk Materials Handling Facility, a Class 1 Development under Regulation 164/88 of *The Environment Act* (Manitoba).

The scope of the Project will include planning, designing, constructing, operating and maintaining the proposed development, although there will be no change in operation and maintenance activities from the current facilities. There are presently no plans for the Project to be decommissioned, however, the existing site on Grey Street will be demolished as part of a separate project to make way for a new arm of the Bus Rapid Transit system and allow the City's active transportation network to be expanded. The Project will require development of site drainage, and will be connected to the City of Winnipeg water supply and waste water system. Project activities will be the same as most construction projects in the city and only a small amount of clearing at the site will be required as most of the Project footprint is currently an agricultural field.

If an EIA is required, it will include identification, assessment and mitigation of adverse environmental effects, and evaluation of the significance of residual environmental effects. The assessment of environmental effects will consider a regional assessment area that includes the lands within 10 km of the city limits and a local assessment area that includes lands within a 4,000 m radius of the centre-point of the proposed Project location (Figure 01). The EIA will consider direct and indirect biophysical and socio-economic effects, including cumulative environmental effects. Alternatives to the Project and requirements for follow-up will also be considered in the assessment.

Potential environmental concerns that might be considered in an EIA and preliminarily assessed in the Project Description include air quality, soil integrity and quality, surface water quality, wetland health, groundwater quality, aquatic and terrestrial vegetation (with special emphasis on species of conservation concern), wildlife, fish and fish habitat, and social and economic conditions associated with the proposed Project.

The purpose of this Indigenous engagement is to identify potential questions and comments related to project construction as early as possible in the process so that they may be addressed as the Project progresses. Should you have any questions or comments, please do not hesitate to contact the undersigned at (204) 896-1209, via e-mail at gsenior@ksgroup.com, or by mail.

Yours truly,

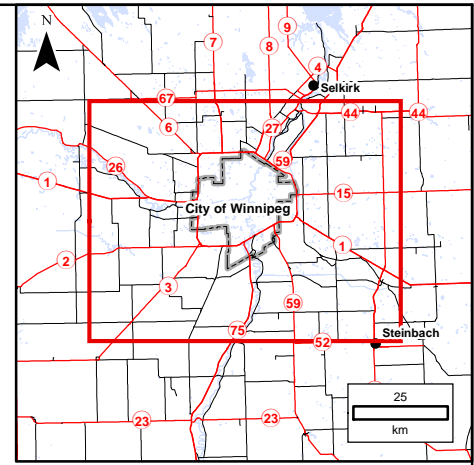
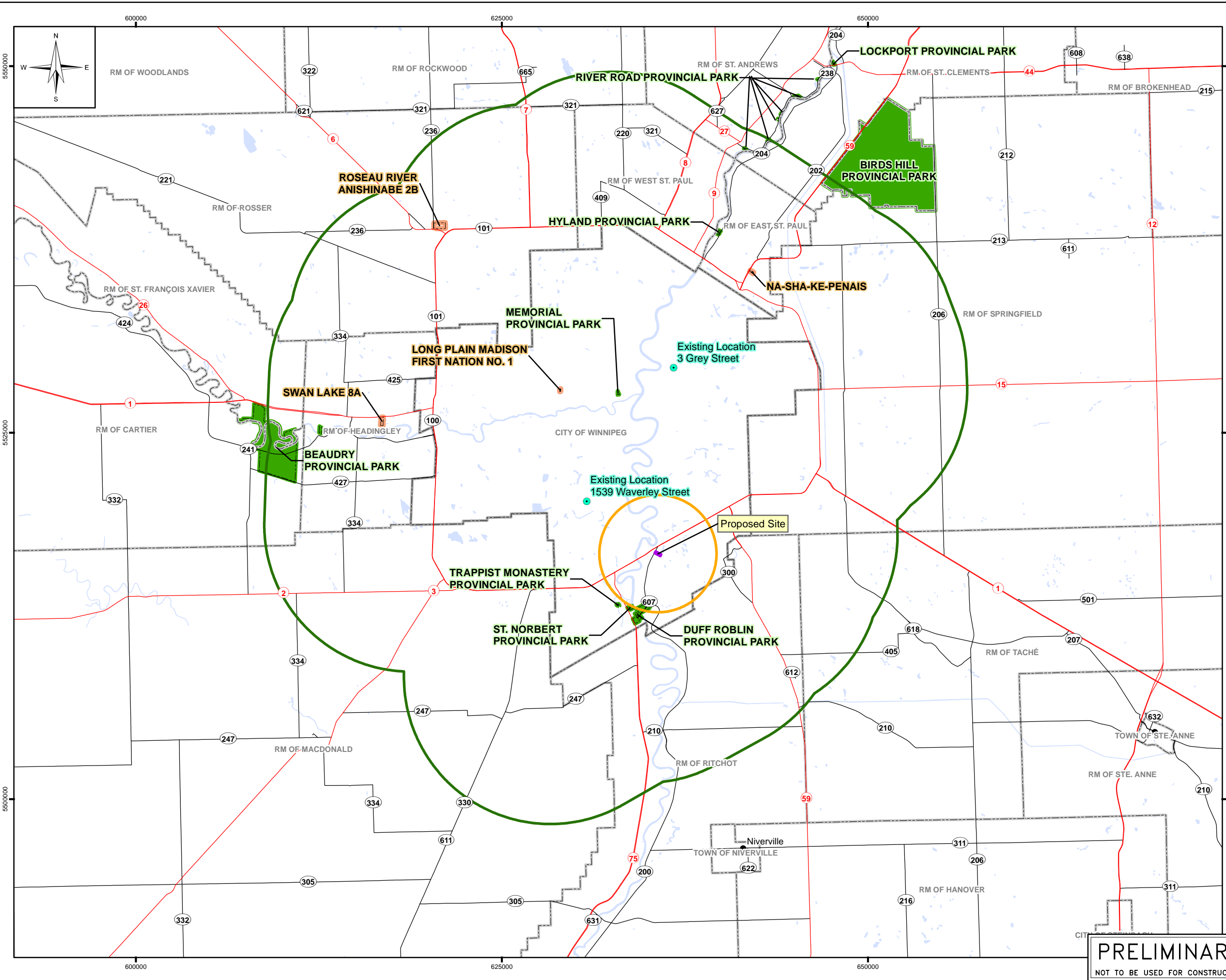
Gene Senior, M.A.
Environmental Scientist

GS/jr
Attachment

cc: Jason Bell, City of Winnipeg

Portions of data Produced by KGS Group, under Licence with the Province of Manitoba
 © 2017 Her Majesty the Queen in Right of Manitoba. All rights reserved.

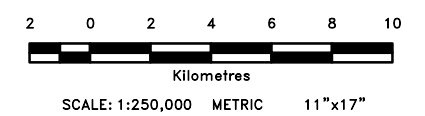
FileName: P:\Projects\2017\17-0107-016\DWG\GIS\MXD\DTC_Letter\RevA\17-0107-016_Fig01_RevA.mxd
 11"x17" PLOT SCALE 1:1



- LEGEND:**
- Existing Location
 - Provincial Highway
 - Provincial Road
 - Lakes / River
 - First Nation
 - Provincial Park
 - Rural Municipality
 - City of Winnipeg
 - Project Footprint
 - Local Assessment Area
 - Regional Assessment Area

NOTES:
 1. All units are metric and in metres unless otherwise specified. Transverse Mercator Projection, NAD 1983, Zone 14. Elevations are in metres above sea level (MSL).

DRAFT



| | | | | |
|-------------------|----------|------------------------|-----------|----------|
| A | 17/10/27 | ISSUED WITH DTC LETTER | GS | BAT |
| NO. | YY/MM/DD | DESCRIPTION | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE | | | | |



**INSECT CONTROL BRANCH RELOCATION
 GEOTECHNICAL, MUNICIPAL AND
 ENVIRONMENT ENGINEERING SERVICES**

PRELIMINARY
 NOT TO BE USED FOR CONSTRUCTION

SITE PLAN
 OCTOBER 2017 FIGURE 01 REV: A

Gene Senior

From: Marshall Birch <marshall.birch@mmf.mb.ca>
Sent: Friday, November 03, 2017 4:34 PM
To: gsenior@ksgroup.com
Cc: Jasmine Langhan
Subject: MMF Response to ICB Relocation Project
Attachments: 11.3.17. MMF Response to ICB Relocation Project.pdf

Good afternoon Mr. Senior,

On behalf of Jasmine Langhan, Engagement and Consultation Coordinator of the Manitoba Metis Federation, please see the attached response to your letter, dated October 27, 2017, regarding the MMF comments on the City of Winnipeg Insect Control Branch Relocation Project.

Please do not hesitate to contact us if you have any questions or concerns.

All the best,

Marshall Birch

Marshall Birch, B.Env.St & Geo
Consultation Project Officer
Manitoba Metis Federation
300-150 Henry Avenue
Winnipeg, MB, R3B 0J7
Tel: (204)586-8474 **Ext. 240**
E-mail: marshall.birch@mmf.mb.ca



MANITOBA METIS FEDERATION INC.

300 - 150 Henry Avenue, Winnipeg, Manitoba R3B 0J7

Phone: (204) 586-8474 Fax: (204) 947-1816 Website: www.mmf.mb.ca

David Chartrand, LL.D. (Hon)
President

November 3, 2017

VIA EMAIL

Mr. Gene Senior
Environmental Scientist
KGS Group
3rd Floor, 865 Waverley Street
Winnipeg, MB R3T 5P4

Dear Mr. Senior,

Re: City of Winnipeg Insect Control Branch Relocation Project, Duty to Consult

The Manitoba Metis Federation (MMF) received your letter dated October 27, 2017 regarding the relocation of the Insect Control Branch (ICB) heliport and ground operations to city-owned land adjacent to the South End Water Pollution Control Centre (SEWPCC). We appreciate the City of Winnipeg's recognition of the need to consult with the MMF on behalf of the Manitoba Metis Community.

We have noted that the letter indicates that potential effects of the proposed project on our Community's ability to exercise our Aboriginal rights have been considered, and that the project is located within the Recognized Manitoba Metis Natural Resource Harvesting Zone (MNRHZ). The project falls within the City of Winnipeg, the traditional homeland of the Metis people, and an area with significant known use by our Community for fishing, hunting, trapping, and cultural purposes. Given this, full, proper, and meaningful consultation with our Community needs to be undertaken to understand the potential effects of the relocation of the ICB heliport and ground operations.

The MMF is the self-government of the Metis Nation's Manitoba Metis Community. The MMF's 2007 Resolution No. 8 sets out a process for the MMF's engagement in discussions with governments, industry and other proponents in matters that relate to the interests and rights of the Community. The MMF Home Office is the central point of contact for all consultation and engagement on behalf of the Community. In consulting with the MMF on behalf of the Manitoba Metis Community, the Resolution No. 8 process provides direction for the implementation of five phases:

- Phase I: Notice and Response;
- Phase II: Funding and Capacity;
- Phase III: Engagement and Consultation;
- Phase IV: Partnership and Accommodation; and

Phase V: Implementation.

As we believe the project could potentially have an impact on the rights, interests, and claims of the Manitoba Metis Community, the process as set out above will need to be followed.

It is appreciated that we have been contacted early on in the project process, as we would like to ensure we fully understand, as early as possible, any potential effects upon our rights that may arise as the project progresses. We would like to arrange a meeting to learn more about the project, and to begin discussions to ensure that the MMF and our Community are adequately informed as to the significance of the project and any impacts that may occur as a result. The MMF looks forward to hearing your response and working collaboratively with you on this project to develop and implement a full, proper, and meaningful consultation process with our community.

Please contact me at your earliest opportunity via telephone at 204-586-8474, extension 234 or via email jasmine.langhan@mmf.mb.ca to further discuss the Project, the Resolution No. 8 process, or if you require any further clarification on any matters raised in this letter.

Best regards,
<Original signed by>

Jasmine Langhan
Engagement and Consultation Coordinator

cc: MMF President's Office

KGS
GROUP
CONSULTING
ENGINEERS

