



Englobe

Sols Matériaux Environnement

Tetrattech QI inc.

**Replacement of the Automatic Sprinkler Network and
Upgrade of the Fire Alarm system
Asbestos work specifications
Hôtel 3^e Classe – Grosse-Île (Québec)
Your Réf. : 14753AG**

Issued for Tender

May 2017

Our Ref. : 040-P-0012406-0-07-260-GA-S-0001-00



Tetrattech QI inc.

Replacement of the Automatic Sprinkler Network and Upgrade of the Fire Alarm system

Asbestos work specifications

Hôtel 3^e Classe – Grosse-Île (Québec)

Your Réf. : 14753AG

Issued for tender

Prepared by :

Dave Duchesne
Project manager
Hygiene, health & safety

Approuved par :

Philippe Gélinas, Ing., M. Sc., M.B.A.
126581 2017-05-18

Philippe Gélinas, Ing., M. Sc., M.B.A.
Project Leader
Hygiene, health & safety

REVISION AND PUBLICATION REGISTER		
Revision N°	Date	Modification And/Or Publication Details
00	2017-05-18	Issued for Tender : 040-P-0012406-0-07-260-GA-S-0001-00

TABLE OF CONTENTS

Section Number	Section Title	No. of pages	Rév.
02 82 00	Asbestos Abatement – General Precautions	12	00
02 82 00.02	Asbestos Abatement – Intermediate Precautions – Moderate risk	9	00
Certificate of laboratory analysis	Groupe EnvironeX : 2017-278883	11	--
Work sketch	Files provided by the Owner	6	--

PART 1 – GENERAL

1.1 SUMMARY

- .1 Generally, the work covered by this specifications section consists of replacing the automatic sprinkler networks and upgrading the fire alarm. To this end, the Contractor must drill into material that contains or will be contaminated by asbestos in the course of the work.
- .2 Work area:
 - .1 The work will take place at Hôtel 3^e Classe in Grosse-Île, Quebec.
- .3 The asbestos-containing materials (ACMs) referred to in this section are the plastered concrete walls that were previously sampled by the Owner and found to contain between 0.1% and 1% chrysotile asbestos. Certificates and drill sketches are attached.

1.2 EXISTING CONDITIONS

- .1 The primary ACMs covered within the scope of this project are identified in section 1.1 (Summary) of these specifications.
- .2 Notify the Professional of suspect ACMs discovered during the work and not apparent from drawings, specifications or reports pertaining to the work. Do not disturb such materials until instructed by the Professional.
- .3 Inform trades and sub-trades of the presence of ACMs.

1.3 SPECIAL REQUIREMENTS

- .1 Where applicable, this specifications section is supplemental to the specifications from architectural, structural, electrical or building services professionals or any other technical specifications section specific to this project.
- .2 The Contractor must submit to the Professional for approval a sketch of the worksite facilities, that is, the location of required containment walls and airlocks for the entry and exit of workers and waste. Furthermore, the Contractor must submit its waste disposal method for approval by the Professional.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

- .3 The Contractor is responsible for inspecting any damage that was present before commencement of the work and submitting a written report of the noted damage to the asbestos Professional. If such a written report is not submitted, any damage found upon completion of the work will be attributed to the work performed by the Contractor.
- .4 The Contractor must repair any damaged surfaces and replace any damaged material or equipment to the Owner's satisfaction in the event that any damage results from the work performed by the Contractor.
- .5 The Contractor must make sure to take the necessary precautions to avoid any contamination outside the work areas.
- .6 The dismantling method used must be controlled and controllable. Randomly dismantling structures in no particular order is strictly prohibited.
- .7 If the Professional deems the dismantling methods to be inappropriate and to pose any risk or danger to workers, the public, the property or the environment, they may require that the methods be modified or better adapted.
- .8 All asbestos waste must be disposed of on a daily basis in an appropriate container (see section 2.1.5 Waste Containers) and transported to the designated container. The location of the waste container will be determined at the first worksite meeting.
- .9 If a waste-disposal chute is used, its location and construction must be approved by the Professional and the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST) inspector prior to its use; otherwise, waste must be transported manually to ground level, at no additional cost to the Owner.
- .10 The Contractor must appoint an employee to verify the quality of the containment facilities on a daily basis. This inspection must be performed at the start of every shift.
- .11 The Contractor must continuously carry out all the required work until the provisional acceptance thereof.
- .12 The Contractor must anticipate that some work may have to be performed at heights.
- .13 The Contractor must plan to provide additional lighting, as needed.
- .14 The Contractor must make the necessary arrangements before commencement of the work to ensure the mode of transporting and disposing of asbestos waste is compliant.

- .15 Upon completion of the work, the premises must be properly cleaned and returned to their initial state.

1.4 REGULATING BODIES

- .1 Comply with federal, provincial and local requirements pertaining to protection against asbestos. In the event of conflict among these requirements or with these specifications, the more stringent requirement applies.
- .2 The Owner, as well as all contractors, employers and workers affected by the project, must adhere to the *Safety Code for the construction industry* (S-2.1, r. 4) at all times and in all places.

1.5 REFERENCES

- .1 *Canadian Environmental Protection Act* (CEPA) (1999)
- .2 *Act respecting occupational health and safety* (AOHS) (CQLR c. S-2.1) (1979):
 - .1 *Regulation respecting occupational health and safety* (S-2.1, r. 13)
 - .2 *Safety Code for the construction industry* (S-2.1, r. 4)
- .3 Commission des normes, de l'équité, de la santé et de la sécurité au travail (CNESST)
- .4 Workplace Hazardous Materials Information System (WHMIS) / Health Canada:
 - .1 Material safety data sheets (MSDSs)
- .5 Transport Canada (TC):
 - .1 *Transportation of Dangerous Goods Act, 1992* (TDG Act)
- .6 Canadian Standards Association (CSA) / CSA Group:
 - .1 CSA Z94.4-93: Selection, use and care of respirators
- .7 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB-1.205-2003: Sealer for Application to Asbestos-Fibre-Releasing Materials
- .8 Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST):
 - .1 Guide des appareils de protection respiratoire utilisés au Québec

1.6 DEFINITIONS

- .1 Airlock: system for permitting ingress or egress of staff, materials and equipment without permitting air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways two metres apart.
- .2 Asbestos-Containing Materials (ACMs): materials that contain 0.1% or more asbestos by dry weight and are identified in section 1.1.3, including fallen materials and settled dust. The concentration of asbestos in a material must be determined using the analytical method 244-3 established by the Institut de recherche Robert-Sauvé en santé et sécurité du travail (hereinafter "IRSST").
- .3 Asbestos Work Areas: areas where work takes place that will or may disturb ACMs.
- .4 Authorized Visitors: consultants or their designated representatives, and representatives of appropriate regulatory agencies.
- .5 Competent Worker: in relation to specific work, means a worker who:
 - .1 Is qualified to perform the work because of knowledge, training and experience;
 - .2 Is familiar with the provincial laws and the provisions of the regulations that apply to the work;
 - .3 Has knowledge of all potential or actual danger to health or safety in the work.
- .6 DOP Test: testing method used to determine the integrity of a depressurization unit using a dioctyl phthalate (DOP) HEPA-filter leak test.
- .7 Friable Materials: material that when dry can be crumbled, pulverized or powdered by hand and includes such material that is crumbled, pulverized or powdered.
- .8 Negative Pressure: a system that uses fans to extract air from a work area, filters the extracted air through high efficiency particulate air (HEPA) filters and discharges it directly outside:
 - .1 Depressurization system to maintain a pressure differential ranging from 1 to 4 pascals relative to adjacent areas outside of work areas.
- .9 Occupied Area: any area of the building or worksite that is outside Asbestos Work Areas.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

- .10 Owner: the person responsible for overseeing all the work on behalf of Public Services and Procurement Canada and Parks Canada. As needed, ensures the required presence of professionals or specialists for the various disciplines involved and specialized work, such as asbestos work, set out in these specifications.
- .11 Professional: the consultant responsible for preparing the asbestos section of plans and specifications and/or supervising the asbestos removal work, in this case Englobe Corp.

1.7 SUBMITTALS

- .1 Before beginning work:
 - .1 Obtain from the appropriate agency and submit to the Professional all necessary permits for the transportation and disposal of asbestos waste. Ensure that the landfill operator is fully aware of the hazardous nature of the material being dumped and of the proper methods of disposal. Submit satisfactory proof to the Professional that suitable arrangements have been made to receive and properly dispose of asbestos waste.
 - .2 Submit proof satisfactory to the Professional that all asbestos workers have received appropriate training and education on the hazards of asbestos exposure, good personal hygiene, entry and exit from Asbestos Work Areas, protective procedures and measures while working in Asbestos Work Areas, and the use, cleaning and disposal of respirators and protective clothing. Submit documents proving that appropriate training has been received.
 - .3 Submit proof that supervisory personnel have attended an asbestos abatement course approved by the Professional. A minimum of one supervisor for every group of ten (10) workers or fewer is required.
 - .4 Send notice to the CNESST of the start of work on a project involving the handling of asbestos, and submit a copy of this notice to the Professional with at least ten days' advance notice before commencing the work.
 - .5 Submit the layout of proposed Airlock and decontamination facilities to the Professional for approval.
 - .6 Submit proof of the Contractor's asbestos liability insurance.
 - .7 Submit documents containing the information required by the workers' compensation board and confirmation of insurance.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

- .8 Submit relevant documentation including test results, fire and flammability data, and Material Safety Data Sheets (MSDSs) for the chemicals or materials used, including but not limited to the following:
 - 1. Encapsulants;
 - 2. Amended water;
 - 3. Slow-drying sealer;
 - 4. If applicable, performance sheets for exhaust fans and DOP Test results.
- .9 Submit a detailed project schedule for planned work to the Professional for approval, including:
 - 1. The planned duration of the work and the number of shifts anticipated;
 - 2. The number of workers expected per shift;
 - 3. The Professional's planned inspection dates.

1.8 QUALITY ASSURANCE

- .1 The removal and handling of material containing or contaminated by asbestos must be performed by experienced persons using industry-recognized methods, procedures and practices.
- .2 The Contractor must complete the work in such a way that contaminated materials, solid residue and contaminated liquids never exit the work areas. The Professional and the Owner may immediately stop work at any time if any of the aforementioned losses occurs or is likely to occur, at no additional cost to the Owner.
- .3 Neither the Professional nor the Owner may be held responsible for ensuring the compliance of construction means, methods and techniques, sequences, procedures, practices or safety programs and precautions required in connection with the work under current construction worksite health and safety regulations or any other regulations on general construction practices. The Professional and the Owner will not be liable for or have control over any act, error, omission or negligence of the Contractor, its subcontractors, agents, employees or other persons carrying out work under these specifications.

1.9 WORKER PROTECTION

- .1 In general:
 - .1 Give instructions to staff before allowing them access to any Asbestos Work Area. These instructions must include training on the use of respiratory protective equipment and also address clothing, entering and exiting the Asbestos Work Area, work procedures and protective measures.
 - .2 It is strictly prohibited for workers to eat, drink, smoke or chew gum or tobacco on the worksite, except in clearly indicated areas outside the Asbestos Work Area.
- .2 Personal protective equipment:
 - .1 Provide each person with appropriate respiratory protective equipment before entering any Asbestos Work Area.
 - .2 Respiratory protective equipment must be selected in accordance with the *Guide des appareils de protection respiratoire utilisés au Québec* published by the IRSST or any other organization approved by the CNESST.
 - .3 Provide workers with protective coveralls. Once used, treat the coveralls as asbestos waste.
 - .4 Provide workers with hard hats, safety boots and any other equipment required by the *Safety Code for the construction industry*.
 - .5 Workers must wear safety goggles and gloves, in addition to the equipment required by the *Safety Code for the construction industry*, to carry out work.

1.10 VISITOR PROTECTION

- .1 Provide disposable protective clothing and approved respirators to all Authorized Visitors to work areas. Once used, treat the disposable coveralls as asbestos waste.
- .2 Instruct Authorized Visitors in the proper use of protective clothing and respirators and the procedures for entering or exiting work areas.

1.11 WASTE MANAGEMENT AND DISPOSAL

- .1 Disposal of asbestos waste generated by removal activities must comply with federal, provincial and municipal regulations. Dispose of asbestos waste in sealed double-thickness 0.15 mm bags or leak-proof drums. Carefully label containers with appropriate warning labels, as required under section 3.23.13 of the *Safety Code for the construction industry*.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

- .2 Unless specified otherwise, all material that must be removed becomes the property of the Contractor, who is required to clear it from the worksite in accordance with the established regulations and directives.
- .3 The transportation of asbestos waste is subject to the *Transportation of Dangerous Substances Regulation* (C-24.2, r. 43), as ACMs fall under Class 9.1, "Miscellaneous Products, Substances or Organisms." This means that the driver of a vehicle transporting asbestos waste must have received training on the transportation of dangerous goods. Additionally, the driver must have on hand for each trip a certificate attesting that they have received this training as well as the shipping document containing all information related to the transported products. Furthermore, if the quantity of asbestos contained in the vehicle is greater than 500 kg, the vehicle must carry a placard identifying the class of goods.
- .4 Provide manifests describing and listing the waste created in the course of the work. Transport containers by approved means to licensed landfills for burial.

PART 2 – PRODUCTS

2.1 MATERIALS/EQUIPMENT

- .1 The materials and equipment brought onto the worksite must be clean and in good working condition. They must be free from any trace of debris, asbestos dust or fibrous materials.
- .2 Single-use (disposable) materials and equipment must be new.
- .3 Wetting agent: solution composed of 50% polyoxyethylene ester and 50% polyoxyethylene ether, or another material approved by the Professional, mixed with water in sufficient concentration to provide adequate penetration and wetting of ACMs (e.g., Fiberlock Penewet or approved equivalent).
- .4 HEPA vacuum: high efficiency particulate air filtered vacuum equipped with a filter system capable of collecting and retaining fibres greater than 0.3 microns in any direction at 99.97% efficiency, and all its accessories.
- .5 Waste Containers: contain waste in two separate containers:
 - .1 Inner container: 0.15 mm thick sealable polyethylene waste bag.
 - .2 Outer container: into which the inner container will be inserted; sealable metal or fibre type where there are sharp objects included in waste material; otherwise, outer container may be sealable metal or fibre type or second 0.15 mm thick sealable polyethylene bag.
 - .3 Labelling requirements: affix a preprinted cautionary asbestos warning, in French, that is visible on any asbestos waste container when sealed and ready for removal to disposal site. Label containers in accordance with the *Controlled Products Regulations*. The label must be in French and permanently include the following indications and representations and be easily legible:
 1. Matériaux contenant de l'amiante;
 2. Toxique par inhalation;
 3. Conserver le contenant bien fermé.
- .6 Amended Water: water with a non-ionic surfactant wetting agent added to reduce water tension to allow wetting of fibres.
- .7 Polyethylene: minimum 0.15 mm thick unless otherwise specified; in sheet size to minimize joints.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

- .8 Polyethylene sheeting sealed with tape: polyethylene sheeting of type and thickness specified sealed with tape along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide a continuous polyethylene membrane to protect underlying surfaces from water damage or damage by sealants, and to prevent the escape of asbestos fibres through sheeting into clean areas.
- .9 Fibre-reinforced polyethylene: minimum 0.15 mm thick, woven fibre-reinforced fabric bonded on both sides with polyethylene.
- .10 Continuous pressure monitor: an instrument design to continuously monitor and automatically record the pressure differential between inside and outside the work area.
- .11 Curtained doorway: arrangement of closures to allow ingress and egress between two (2) rooms while permitting minimal air movement between rooms, typically constructed as follows:
 - .1 Place two (2) overlapping sheets of polyethylene over existing or temporarily framed doorway, secure each along top of doorway, secure vertical edge of one sheet along one vertical side of doorway, and secure vertical edge of other sheet along opposite vertical side of doorway.
 - .2 Reinforce free edges of polyethylene with duct tape and weight bottom edge to ensure proper closing.
 - .3 Overlap each polyethylene sheet at openings not less than 1.5 m on each side.
- .12 Slow-drying sealer: non-staining, clear, water-dispersible type that remains tacky on surface for at least eight hours and designed for the purpose of trapping residual asbestos fibres.
 - .1 Flame-spread and smoke-developed rating less than 50.
 - .2 Compatible with alternative materials, where applicable.
- .13 Encapsulant: a Type 2 penetrating type Class A water-based product conforming to CAN/CGSB-1.205 and approved by the Fire Commissioner of Canada (e.g., Bakor 120-19, Fiberlock ABC or approved equivalent).
- .14 Sprayer: garden reservoir-type sprayer or airless spray equipment capable of producing mist or fine spray. Must have appropriate capacity for scope of work.
- .15 Tape: fibreglass-reinforced duct tape suitable for sealing polyethylene under both dry conditions and wet conditions using amended water.

**ASBESTOS REMOVAL
GENERAL PRECAUTIONS**

.16 Glove bag:

.1 Prefabricated product as follows:

1. Minimum 0.25 mm (10 mil) thick polyvinyl-chloride bag;
2. Integral 0.25 mm (10 mil) thick polyvinyl-chloride gloves and elastic ports;
3. Equipped with reversible double-pull double-throw zipper on top and at approximately mid-section of the bag.

.2 The glove bag to be equipped with:

4. Sleeves and gloves that are permanently sealed to the body of the bag to allow the worker to access and deal with the insulation.
5. Valves or openings to allow insertion of a vacuum hose and the nozzle of a water sprayer while maintaining the seal to the pipe, duct or similar structure.
6. A tool pouch with a drain.
7. A seamless bottom and a means of sealing off the lower portion of the bag.
8. A high strength double-throw zipper and removable straps, if the bag is to be moved during the removal operation.

.17 DOP Test: testing method used to determine the integrity of a depressurization unit using a dioctyl phthalate (DOP) HEPA-filter leak test.

PART 3 – EXECUTION

3.1 RELATED REQUIREMENTS

- .1 Refer to the following specifications sections for execution of the work:
 - .1 02 82 00.02 — Moderate Risk.

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

- .1 Specifically comply with the requirements of this section when performing the following work:
 - .1 The drilling of plastered concrete walls that contain asbestos to allow for the running of ducts, all in a work enclosure.
- .2 In general, comply with the requirements of this section for the following work:
 - .1 The handling or removal of small quantities of Friable Material containing asbestos having a volume of debris not exceeding 0.03 m³ for each minor renovation or regular specific maintenance job. If the debris exceeds 0.3 m³, the work must be carried out in high-risk worksite conditions.
- .3 The Asbestos-Containing Materials (ACMs) referred to in this section are the following:
 - .1 The concrete present under the plaster covering certain walls of the building contains between 0.1% and 1% chrysotile asbestos.
- .4 The certificate of laboratory analysis of the samples collected by the Owner is attached.

1.2 SECTION INCLUDES

- .1 Requirements and procedures for the removal of ACMs in moderate-risk worksite conditions in an enclosure according to the requirements of section 3.23.15 of the *Safety Code for the construction industry*.
- .2 This section adheres to the following regulations:
 - .1 The *Regulation respecting occupational health and safety* (S-2.1, r. 13);
 - .2 The *Safety Code for the construction industry* (S-2.1, r. 4).

1.3 WORKER PROTECTION

- .1 Protective equipment and clothing to be worn by workers while in the Asbestos Work Area include:
 - .1 An air purifying half-mask respirator with high efficiency particulate air (HEPA) filter, issued to the worker and marked as to efficiency and purpose, suitable for protection against asbestos and acceptable to the provincial authority having jurisdiction. The respirator is to be fitted so that there is an effective seal between the respirator and the worker's face. The respirator is to be cleaned, disinfected and inspected after use on each shift, or more often if necessary, when issued for the exclusive use of one worker, or after each use when used by more than one worker. Any damaged or deteriorated parts of the respirator are to be replaced prior to the respirator being used by a worker. When the respirator is not in use, it is to be stored in a convenient, clean and sanitary location. A worker is not to be assigned to an operation requiring the use of a respirator unless they are physically able to perform the operation while using the respirator.
 - .2 Disposable-type protective clothing that does not readily retain or permit penetration of asbestos fibres. Protective clothing is to be provided by the employer and worn by every worker who enters the work area. The protective clothing is to consist of a head covering and full body covering that fits snugly at the ankles, wrists and neck, in order to prevent asbestos fibres from reaching the garments and skin underneath the protective clothing. It includes suitable footwear and is to be repaired or replaced if torn.
- .2 Eating, drinking, chewing gum and smoking are not permitted in the Asbestos Work Area.
- .3 Before leaving the Asbestos Work Area, the worker can decontaminate their protective clothing by using a vacuum equipped with a HEPA filter, or by damp wiping, before removing the protective clothing, or, if the protective clothing will not be reused, place it in a container for dust and waste. The containers are to be dust tight, suitable for asbestos waste, impervious to asbestos, identified as asbestos waste, cleaned with a damp cloth or a vacuum equipped with a HEPA filter immediately before removal from the work area, and removed from the work area frequently and at regular intervals.
- .4 Ensure workers wash their hands and face when leaving an Asbestos Work Area. Facilities for washing hands and faces must be provided within or close to the work areas.
- .5 Ensure that no person required to enter an Asbestos Work Area has hair or facial hair that affects the seal between the respirator and face.

1.4 VISITOR PROTECTION

- .1 Provide protective clothing and approved respirators to all Authorized Visitors to work areas.
- .2 Instruct Authorized Visitors in the proper use of protective clothing and respirators.
- .3 Instruct Authorized Visitors in the procedures for entering or exiting work areas.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Disposal of asbestos waste generated by removal activities must comply with federal, provincial and municipal regulations. Dispose of asbestos waste in sealed double-thickness 0.15 mm bags or leak-proof drums. Carefully label containers with appropriate warning labels, as required under section 3.23.13 of the *Safety Code for the construction industry*.
- .2 Unless specified otherwise, all material that must be removed becomes the property of the Contractor, who is required to clear it from the worksite in accordance with the established regulations and directives.
- .3 The transportation of asbestos waste is subject to the *Transportation of Dangerous Substances Regulation* (C-24.2, r. 43), as ACMs fall under Class 9.1, "Miscellaneous Products, Substances or Organisms." This means that the driver of a vehicle transporting asbestos waste must have received training on the transportation of dangerous goods. Additionally, the driver must have on hand for each trip a certificate attesting that they have received this training as well as the shipping document containing all information related to the transported products. Furthermore, if the quantity of asbestos contained in the vehicle is greater than 500 kg, the vehicle must carry a placard identifying the class of goods.
- .4 Provide manifests describing and listing the waste created in the course of the work. Transport containers by approved means to licensed landfills for burial.

1.6 SCHEDULING

- .1 Prior to beginning work on this project, notify the following people and organizations in writing:
 - .1 Send notice to the CNESST of the start of work on a hazardous project involving the handling of asbestos.
- .2 Inform trades and sub-trades in writing of the presence of ACMs identified in Existing Conditions.
- .3 Submit to the Professional copies of all notifications sent prior to the start of work.

PART 2 – PRODUCTS

2.1 MATERIALS/EQUIPMENT

- .1 Refer to section 02 82 00 – General Precautions for the standard definitions applicable to this section.

PART 3 – EXECUTION

3.1 PREPARATION AND PRECAUTIONS

- .1 Delimit the work area.
- .2 Remove items that can be removed from the work area to facilitate work and avoid any risk of asbestos contamination.
- .3 Limit access to the work area, and post signs to inform people that work is in progress.
- .4 Wearing protective clothing in accordance with the *Safety Code for the construction industry* is mandatory for all persons in the work area, and the clothing worn for this reason must be used solely to carry out the work.
- .5 Workers must follow the decontamination procedure recommended for all moderate-risk work as soon as they exit the work area.

3.2 SUPERVISION

- .1 A minimum of one supervisor for every group of ten (10) workers or fewer is required.
- .2 An approved supervisor must remain within the Asbestos Work Area during disturbance, removal or other handling of ACMs.

3.3 ELECTRICAL SAFETY

- .1 As needed, electric circuits powering the work area must be turned off by a qualified electrician.
- .2 All electric circuits and electric equipment located in the work area must be fully protected to prevent water or dust infiltration.
- .3 As needed, ceiling luminaires and other electrical equipment must be dismantled prior to the work and reinstalled after the work by a qualified electrician.
- .4 The Contractor must have an electrician install circuits protected by ground fault circuit interrupters to power electric tools and any additional lighting necessary to carry out the work.
- .5 Installation and equipment must meet relevant CSA standards. Ensure safe installation of electrical lines and equipment by qualified persons.

3.4 FIRE DETECTION SYSTEM SECURITY

- .1 If the fire alarm system or a part thereof must be fully or partially disabled, or if repairs or work are likely to activate the fire alarm system, the Contractor must ensure that:
 - .1 Detection devices in the work area are protected with covers to avoid false alarms, or that detection devices in the work area are temporarily disabled.
 - .2 They request the services of the company responsible for managing these systems to coordinate temporary disabling by area.
 - .3 The fire alarm system is reactivated and free of defects after each repair and/or at the end of each day.

3.5 INTRUSION ALARM SYSTEM SECURITY

- .1 As needed, if the intrusion alarm system or a part thereof must be disabled, or if repairs or work are likely to activate the alarm, the Contractor must ensure that the detection devices in the work area are protected with covers to avoid false alarms or that the detection devices in the work area are temporarily disabled.
- .2 The intrusion alarm system must be reactivated and free of defects after each repair and/or at the end of each day.

3.6 PROCEDURE

- .1 The worksite must be properly delimited and signage in French indicating asbestos work is being performed must be posted around the worksite. Before beginning work, a sign must be posted at the entrance to each work area. That sign must be yellow, measure 500 mm high by 350 mm wide and indicate in black letters of the size specified below the following information in the following order:

	Size of letters
AMIANTE	50 mm
DANGER	40 mm
Ne pas respirer les poussières	15 mm
Équipement de protection obligatoire	15 mm
Entrée interdite	15 mm
L'inhalation de la poussière d'amiante peut être dommageable à votre santé	10 mm

- .2 Before beginning work, remove visible dust and debris from surfaces in the work area where dust and debris is likely to be disturbed in the course of the work.
 - .1 Use a HEPA vacuum or damp cloths where damp cleaning does not create a hazard and is otherwise appropriate;
 - .2 Do not use compressed air to clean up or remove dust from any surface.
- .3 Prevent the spread of dust from the work area using measures appropriate to the work to be done.
 - .1 Use fibre-reinforced polyethylene drop sheets over flooring such as carpeting that absorbs dust and over flooring in work areas where dust or asbestos fibres cannot otherwise be safely contained.

3.7 PLANNED MODERATE-RISK WORK IN WORK ENCLOSURE

- .1 Erect an enclosure of polyethylene sheeting around the work area, shut off the mechanical ventilation system serving the work area and seal ventilation ducts to and from the work area.
- .2 Use a garden reservoir-type low-velocity sprayer or airless spray equipment capable of producing mist or fine spray.
- .3 Perform work in a manner to reduce dust creation to the lowest levels practicable.
- .4 As work progresses, and to prevent exceeding the available storage capacity on site, remove sealed and labelled containers containing asbestos waste and dispose of to the authorized disposal area in accordance with the requirements of the disposal authority.
- .5 Work will be subject to visual inspection. Contamination of surrounding areas indicated by visual inspection or air monitoring will require complete enclosure and clean-up of affected areas.

3.8 CLEANUP

- .1 Frequently during work and immediately after completion of work, clean up dust and asbestos-containing waste using a HEPA vacuum or by damp mopping.
- .2 Place dust and asbestos-containing waste in sealed dust-tight waste bags. Treat drop sheets and disposable protective clothing as asbestos waste; wet and fold to contain dust, then place in waste bags.
- .3 Immediately before their removal from the Asbestos Work Area, clean each filled waste bag using damp cloths or a HEPA vacuum and place in a second clean waste bag.

- .4 Seal waste bags and remove them from the site. Dispose of asbestos waste in accordance with the requirements of the provincial and federal authorities having jurisdiction. Supervise dumping and ensure that the dump operator is fully aware of the hazardous nature of the material to be dumped and that guidelines and regulations for asbestos disposal are followed.
- .5 Perform a final thorough cleanup of Asbestos Work Areas and adjacent areas affected by the work using a HEPA vacuum.

3.9 DISMANTLING AND FINAL CLEANUP

- .1 Proceed with final cleanup only once the work is completed.
- .2 Remove polyethylene sheets by carefully rolling them away from walls to the centre of the work area. Immediately vacuum visible asbestos-containing particles observed during cleanup using HEPA vacuum equipment.
- .3 Place polyethylene sheets, tape, cleaning equipment, clothing and other contaminated waste in plastic bags, and place these bags in sealed labelled waste containers for transport.
- .4 Include in cleanup work areas, the equipment and access room and any other enclosure that may be contaminated.
- .5 Include in cleanup sealed waste containers and equipment used in work, and remove them from work areas via the container and equipment decontamination enclosure system at the appropriate time in the cleaning sequence.
- .6 Conduct a final check to ensure that no dust or debris remains on surfaces as the result of dismantling operations.

3.10 RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS

- .1 When cleanup is complete, contractor is required to:
 - .1 Install new filters;
 - .2 Repair or replace objects damaged in the course of the work, as directed by the Owner;
 - .3 Re-establish mechanical and electrical systems in proper working order.

3.11 AIR MONITORING

- .1 From the beginning of work until the completion of cleaning operations, the Professional may, if they deem it necessary, take air samples around the work areas.

- .2 If air monitoring shows that the areas are contaminated, enclose, maintain and clean these areas, in the same manner as that applicable to work areas.

3.12 INSPECTION

- .1 Perform an inspection of the Asbestos Work Areas to confirm compliance with specifications and governing authority requirements. Deviations from these requirements that have not been approved in writing by the Professional may result in work stoppage.
- .2 As needed, the Professional will inspect the work for:
 - .1 Adherence to specific procedures and requirements in relation to various equipment and devices;
 - .2 Final cleanliness and completion;
 - .3 The provision, at no additional cost, of additional labour or materials required to provide the specified performance level.
- .3 Should asbestos leakage from the Asbestos Work Area occur or be likely to occur, the Professional will order a work shutdown:
 - .1 Labour, materials and additional measures in order to provide the specified performance level will be provided by the Contractor at no additional cost.

END OF SECTION

Rapport final

Bio-visite numéro : 2017-278883

Client : Sylvain Giguère, Parc Canada

Téléphone : -

Adresse : 280 rue St-Dominique
 Québec
 Québec, Canada
 G1A 1A1

Cell. : -

Date de prélèvement :
 22 février 2017

Date de réception :
 22 février 2017

Date de résultat :
 23 février 2017

Date d'approbation :
 23 février 2017

Entrepreneur :

d'installation :

No. Projet ou No. Bon Commande :

Prélevé par : Leic Godbout

01 : Identification de l'échantillon : 111 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc peint en jaune FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc peint en vert FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

02 : Identification de l'échantillon : 112 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

03 : Identification de l'échantillon : 113 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc peint en noir FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

04 : Identification de l'échantillon : 114A Plâtre**Lieu du prélèvement :**

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse		Méthode	Ini.
Amiante dans les matériaux (MLP) <24h		Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture beige FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #3	Composition: Peinture beige FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #4	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #5	Composition: Ciment brun FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: 75 à 90% Vermiculite/Mica: 10 à 25% Fibres naturelles: <1%		

05 : Identification de l'échantillon : 114B Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse		Méthode	Ini.
Amiante dans les matériaux (MLP) <24h		Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%		
- Couche #4	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #5	Composition: Plâtre blanc FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1%		

06 : Identification de l'échantillon : 114C Plâtre**Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île**

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse		Méthode	Ini.
Amiante dans les matériaux (MLP) <24h		Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture jaune FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #3	Composition: Ciment brun FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: 75 à 90% Vermiculite/Mica: 10 à 25% Fibres naturelles: <1% Poils: <1%		
- Couche #4	Composition: Gypse gris FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: 1 à 5% Fibres de verre: <1%		

07 : Identification de l'échantillon : 115 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture jaune FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Plâtre blanc peint en vert FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: 1 à 5%	
- Couche #4	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

08 : Identification de l'échantillon : 222 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc FIBRES D'AMIANTE: Trace (<0.1%) Type d'amiante: Chrysotile Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc peint en blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

09 : Identification de l'échantillon : 224 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Colle jaune avec peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

10 : Identification de l'échantillon : 226 plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Plâtre blanc peint en blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: 1 à 5%	
- Couche #4	Composition: Plâtre blanc peint en blanc FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1%	

11 : Identification de l'échantillon : 226 Petit corridor plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc peint en vert FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	
- Couche #2	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Vermiculite/Mica: <1% Fibres naturelles: <1% Poils: <1%	

12 : Identification de l'échantillon : 228 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Vermiculite/Mica: <1% Fibres naturelles: <1% Fibres synthétiques: <1%	
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Vermiculite/Mica: 1 à 5% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #4	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

13 : Identification de l'échantillon : 229 Plâtre

Lieu du prélèvement : Bâtiment 3e classe - Grosse-île

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc peint en blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Vermiculite/Mica: 1 à 5% Fibres naturelles: <1%	
- Couche #2	Composition: Ciment blanc peint en vert FIBRES D'AMIANTE: Trace (<0.1%) Type d'amiante: Chrysotile Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #3	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Matériel non-fibreux: >90% Fibres naturelles: <1% Poils: <1%	

14 : Identification de l'échantillon : 230 Plâtre**Lieu du prélèvement : Bâtiment 3e classe - Grosse-Ile**

État à la réception : Conforme

Notre référence au MDDELCC :

Matrice / Nature de l'échantillon : Matériaux

Origine de l'échantillon :

Point d'échantillonnage :

Analyse de l'Amiante et des Matériaux

Analyse		Méthode	Ini.
Amiante dans les matériaux (MLP) <24h		Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #2	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #3	Composition: Peinture blanche FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%		
- Couche #4	Composition: Plâtre blanc FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: 1 à 5%		
- Couche #5	Composition: Ciment brun FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: 75 à 90% Vermiculite/Mica: 10 à 25% Fibres naturelles: <1% Poils: <1%		
- Couche #6	Composition: Ciment beige FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: 75 à 90% Vermiculite/Mica: 5 à 10% Fibres naturelles: <1%		

15 : Identification de l'échantillon : 231 Plâtre**Lieu du prélèvement : Bâtiment 3e classe - Grosse-Île****État à la réception : Conforme****Notre référence au MDDELCC :****Matrice / Nature de l'échantillon : Matériaux****Origine de l'échantillon :****Point d'échantillonnage :****Analyse de l'Amiante et des Matériaux**

Analyse	Méthode	Ini.
Amiante dans les matériaux (MLP) <24h	Microscopie à polarisation et dispersion des couleurs - Méthode IRSST 244	MAG
- Couche #1	Composition: Plâtre blanc peint en vert FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: >90% Fibres naturelles: <1%	
- Couche #2	Composition: Ciment gris FIBRES D'AMIANTE: Détectées (+) Type d'amiante: Chrysotile <1% Fibres naturelles: <1% Poils: <1%	
- Couche #3	Composition: Morceau de bois brun FIBRES D'AMIANTE: Non détectées Matériel non-fibreux: 5 à 10% Fibres naturelles: >90%	

N.B. : Une mention «Fibres d'amiante : Détectées» confirme que la concentration est évaluée à être supérieure à 0,1 %. Cette méthode analytique est semi-quantitative. Le domaine d'applicabilité de la méthode varie de < 1 % à 100 % (v/v).

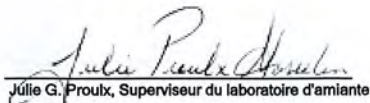
Légende pour l'analyse de l'amiante dans les matériaux

Résultats confirmant la norme permise :

Négatif (non-détectées) / Trace (<0,1%)

Gammes confirmant la présence d'amiante dans l'échantillon :

Détectées (+); <1% / 1-5% / 5-10% / 10-25% / 25-50% / 50-75% / 75-90% / >90%

Approuvé par :
Julie G. Proulx, Superviseur du laboratoire d'amiante

Les analyses sont effectuées dans les Laboratoires EnvironeX de Québec. Ces derniers sont accrédités par le Ministère du Développement Durable, Environnement et Lutte contre les Changements Climatiques (MDDELCC) du Québec, selon la norme internationale ISO/CEI 17025.

Notre département d'analyse de l'amiante dans les matériaux participe aux séquences d'examen «BAPAT» de l'AIHA américaine, est certifié professionnel par cette dernière et est reconnu par l'IRSST.

Ce certificat ne peut être reproduit, sinon en entier, sans l'autorisation écrite du laboratoire. Résultats applicables qu'aux échantillons soumis à l'analyse.

PLAN DE CONSTRUCTION
Echelle = 1 : 100

PLAN DE DÉMOLITION
Echelle = 1 : 100

SECTION
Echelle = 1 : 100

LEGÈNDE:

- 1 COMPTOIR AVEC ÉVIER
- 2 TABLETTE
- 3 COMPTOIR DE SERVICE
- 4 SALLE DE SOUCHÈRE
- 5 COMPTOIR AVEC SUPPORT À CASSEROLLES
- 6 COMPTOIR AVEC ANCHOIRES
- 7 NŒUD AVEC HOTTE
- 8 CONDUIT D'ÉVACUATION DE LA HOTTE
- 9 CLOISON À DÉMOLIR

IDENTIFICATION DES LOCAUX:

- 1101 CAGE D'ÉGOUTS (OUEST)
- 1102 GARDE-MANGER
- 1103 VESTIBULE
- 1104 CUISINE
- 1105 SERVICE DE CAFÉ-TÉA
- 1106 SALLE DE TOILETTE FEMMES (OUEST)
- 1107 SALLE À MANGER
- 1108 ANCIENNE SALLE DE SOUCHÈRE
- 1109 SALLE DE TOILETTE HOMMES
- 1110 SALLE TOILETTE FEMMES (EST)
- 1111 SALLE DE GROUPE
- 1112 ESCALIER ESPACES AU VISE SANITARI
- 1113 SALLE DE TOILETTE ACCÈS UNIVERSEL
- 1114 SALLI À MANGER D'ORIGINE (EST)
- 1115 CUISINE D'ORIGINE (EST)
- 1116 CAGE D'ÉGOUTS (EST)

PLAN DE CONSTRUCTION
Echelle = 1 : 100

PLAN DE DÉMOLITION
Echelle = 1 : 100

SECTION
Echelle = 1 : 100

LEGÈNDE:

- 1 COMPTOIR AVEC ÉVIER
- 2 TABLETTE
- 3 COMPTOIR DE SERVICE
- 4 SALLE DE SOUCHÈRE
- 5 COMPTOIR AVEC SUPPORT À CASSEROLLES
- 6 COMPTOIR AVEC ANCHOIRES
- 7 NŒUD AVEC HOTTE
- 8 CONDUIT D'ÉVACUATION DE LA HOTTE
- 9 CLOISON À DÉMOLIR

IDENTIFICATION DES LOCAUX:

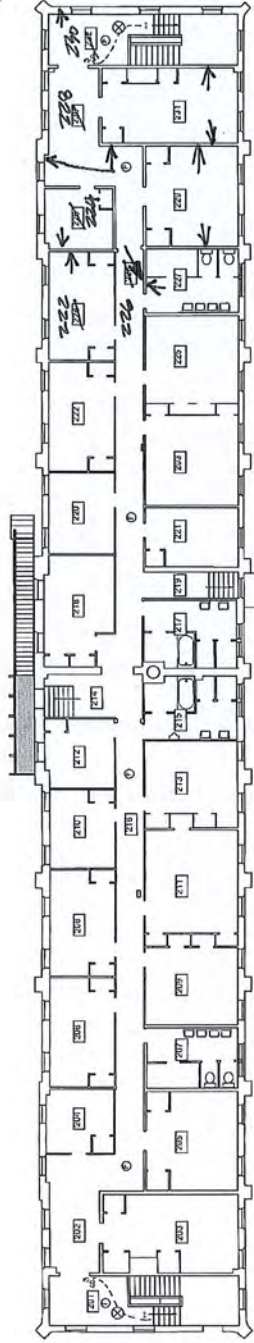
- 1101 CAGE D'ÉGOUTS (OUEST)
- 1102 GARDE-MANGER
- 1103 VESTIBULE
- 1104 CUISINE
- 1105 SERVICE DE CAFÉ-TÉA
- 1106 SALLE DE TOILETTE FEMMES (OUEST)
- 1107 SALLE À MANGER
- 1108 ANCIENNE SALLE DE SOUCHÈRE
- 1109 SALLE DE TOILETTE HOMMES
- 1110 SALLE TOILETTE FEMMES (EST)
- 1111 SALLE DE GROUPE
- 1112 ESCALIER ESPACES AU VISE SANITARI
- 1113 SALLE DE TOILETTE ACCÈS UNIVERSEL
- 1114 SALLI À MANGER D'ORIGINE (EST)
- 1115 CUISINE D'ORIGINE (EST)
- 1116 CAGE D'ÉGOUTS (EST)

2002 2002

Public Works
Department
City of Montreal
1000 Avenue du Parc
Montreal, Quebec
H3A 2K4

REMARQUES:
→ EN FAISANT LES REPARATIONS
DE VOS APPAREILS, VEUILLEZ
PRENDRE EN CONSIDERATION
PAR L'ÉLECTRICIEN ET LE
PLUMBIER.

NOTES:
Tous les REPARATIONS
ONT ÉTÉ RÉALISÉES
DANS LES CLOISONS.



IDENTIFICATION DES LOCAUX:

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

PLAN D'ÉLECTRICITÉ
ÉCHELLE • 1:100

LEGENDE

- ⊙ DÉTECTEUR DE FUMÉE
- ⚡ INTERRUPTEUR
- ⊗ ÉCLAIRAGE / APPAREIL PLAFONNIER

Numéro	Date
--------	------

A. No. de plan	A. Detail No.
B. Description	B. Location
C. Sur feuille No.	C. On sheet

Drawn by	Drawn by
----------	----------

Checked by	Checked by
------------	------------

Approved by	Approved by
-------------	-------------

Charge de projet	Job supervisor
------------------	----------------

F. AUCUN	Asst. manager
----------	---------------

Chief de section	Section head
------------------	--------------

R. MARCOTTE	Area manager
-------------	--------------

Project	Project
---------	---------

LIU HISTORIQUE
NATIONAL DE LA
GROSSE-ÎLE-ET-
LE-MEMORIAL-
DES-IRLANDAIS

HOTEL DE 31ème CLASSE

RÉHABILITATION

Titre du dessin	Drawing title
-----------------	---------------

PLAN DE L'ÉTAGE
PLAN D'ÉLECTRICITÉ

Date	Version
------	---------

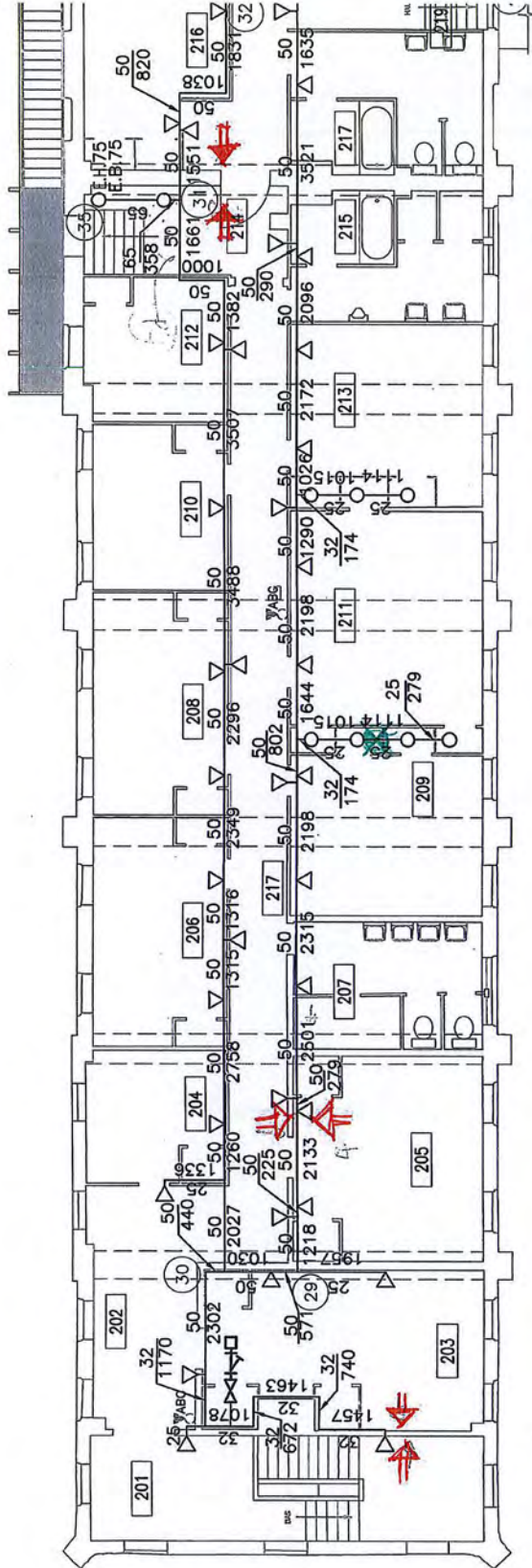
Échelle	Scale
---------	-------

Mat. Contrôlé	Mat. Contrôlé
---------------	---------------

No. de référence	Reference no.
------------------	---------------

124 / 19 / PR 1-002	Sheet
---------------------	-------

ÉCHELLE/SCALE: 1:100



TUYAUTERIE ACIER NOIR CALIBRE 40
SCHEDULE 40 BLACK STEEL PIPE



Pr. Fowd
i.w.f.

PLAN DU 2e ÉTAGE
2nd FLOOR PLAN

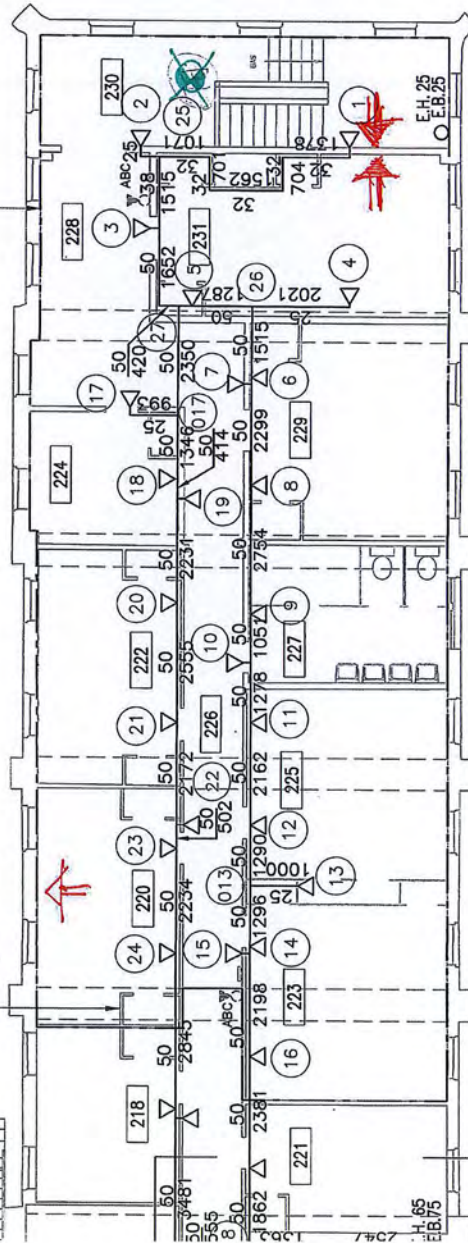
ÉCHELLE/SCALE: 1:100

à Biens

CALCUL/CALCULATION #5.
0.10 GPM/1950 p^{1/2}/ft²
K = 5.6

24 GICLÉURS/SPRINKLERS À 148 p^{1/2}/ft²
DÉBIT BOYAU/HOSE ALLOWANCE: 100 USGPM
DÉBIT TOTAL/TOTAL FLOW: 544 GPM
PRESSION REQUISE/REQUIRED PRESSURE: 70 PSI
MARGE DE SÉCURITÉ/SAFETY MARGIN: 9 PSI

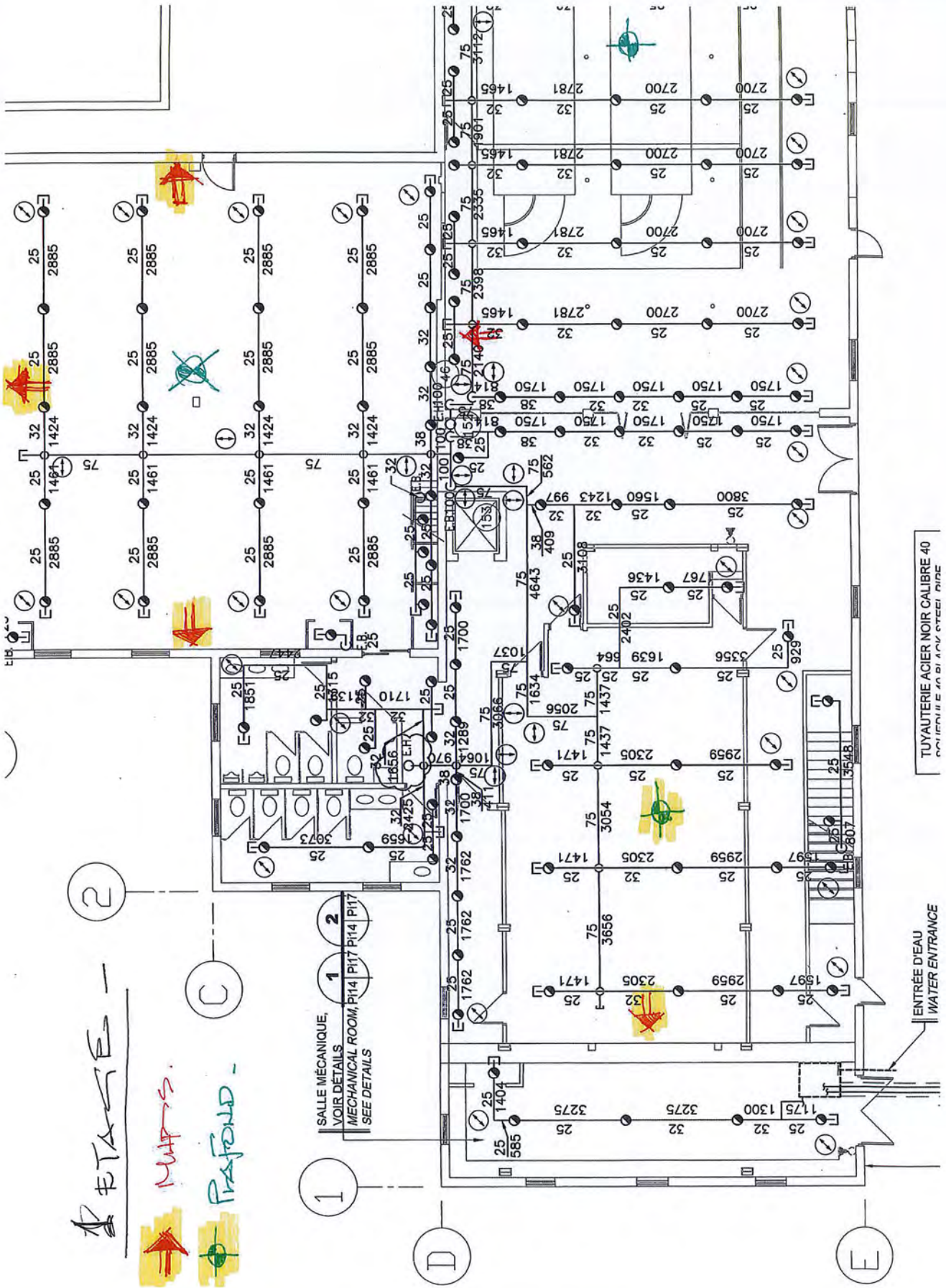
GARDE-ROBE, HAUTEUR 2.1m
DU PLANCHER, TYPIQUE
CLOSET, HEIGHT 2.1m FROM
FLOOR, TYPICAL

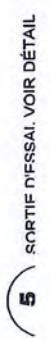


SUITE DU ZIENE -
IDEU ZIENE ETAGE



01	EMISSION PLANS PRÉLIMINAIRE	2016-12-08
Modification		Date
A. No du détail	A. Detail No	
B. Localisation	B. Localisation	
C. Sur feuille No	C. On sheet No	
<div style="text-align: center;"> </div>		
CONCEPTION:		
Conçu par:	DESIGN:	
J. Désilets ing.	Designed by:	
Dessiné par:	Drawn by:	
L. Murray	Checked by:	
Verifié par:	Project manager by:	
J. Désilets ing.	XX	
Chargé de projet:	VALIDÉ PAR:	VALIDATED BY:
XX		
Gestionnaire de projet:	Project manager:	
XX		
Gestionnaire principal de projet:	Project director:	



[illegible]