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Travaux publics et Services gouvernementaux
Canada
Place Bonaventure, portail Sud-Oue
800, rue de La Gauchetière Ouest
7e étage, suite 7300
Montréal
Québec
H5A 1L6

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

**Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Travaux publics et Services gouvernementaux Canada
Place Bonaventure, portail Sud-Oue
800, rue de La Gauchetière Ouest
7e étage, suite 7300
Montréal
Québec
H5A 1L6

Title - Sujet Réfection enveloppe CCC Laferrière	
Solicitation No. - N° de l'invitation 21301-195878/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client 21301-19-5878	Date 2018-11-01
GETS Reference No. - N° de référence de SEAG PW-\$MTC-120-15063	
File No. - N° de dossier MTC-8-41159 (120)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-12-04	Time Zone Fuseau horaire Heure Normale du l'Est HNE
F.O.B. - F.A.B.	
Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Harvey, Keven	Buyer Id - Id de l'acheteur mtc120
Telephone No. - N° de téléphone (514) 607-2867 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Amendment 001

REBUILDING OF THE ENVELOPE LAFERRIÈRE CORRECTIONAL COMMUNITY CENTER 202 RUE ST-GEORGES, ST-JÉRÔME (QUÉBEC) J7Z 4Z9

The purpose of this amendment is to replace the table of contents for the architecture specification.

-All other terms and conditions remain unchanged-

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Partie 1 General

1.1 RELATED REQUIREMENTS

- .1 Not applicable

1.2 REFERENCES

- .1 Not applicable

1.3 ADMINISTRATIVE

- .1 In the shortest possible time and in a predetermined order to not delay the execution of the work, submit documents and samples required Consultant for review. A delay in this regard can not constitute a sufficient reason for an extension of the time limit for completion and no such request will be accepted.
- .2 Do not undertake work for which requires the filing of documents and samples before reviewing all submitted pieces is completely finished.
- .3 The data shown on the shop drawings, data sheets and samples of products and works must be expressed in metric units (SI).
- .4 When the elements are not produced or manufactured in metric (SI) or that the features are not given in metric units (SI), the converted values can be accepted.
- .5 Review documents and samples before returning them to the Consultant. Through this diligence, the Contractor confirms that the requirements applicable to works have been or will be determined and verified, and that each document and samples submitted was examined and found to comply with the requirements of the work and contract documents. The documents and samples that will not be stamped, signed, dated and identified in connection with the particular project will be returned without being reviewed and will be considered rejected.
- .6 Give written notice to the Consultant, upon filing of documents and samples, differences that they have with the requirements of the contract documents, and state the reasons.
- .7 Ensure the accuracy of the measures taken on site from adjacent structures affected by the work.
- .8 The fact that the documents and samples submitted are reviewed by the Consultant does not release the Contractor from its responsibility to provide full and accurate parts.
- .9 The fact that the documents and samples submitted are reviewed by the Consultant does not release the Contractor from its responsibility to transmit coins meeting the requirements of the contract documents.
- .10 Keep a copy on the site checked each document submitted.

1.4 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, tables, graphics performance or performance, brochures and other documentation to be provided by the Contractor to show in detail part of the intended work.
- .2 If required, drawings must bear the seal and signature of a professional engineer or holding a license to practice in Canada, in the province of Quebec.
- .3 Shop drawings must indicate the materials used and the construction methods of fixing or anchor to use, and they must contain the assembly diagrams, details of connections, explanatory notes and other necessary information the execution of works. When structures or elements are connected or connected to other books or other items, indicate on the drawings that had coordination requirements, regardless of the section under which the works or adjacent elements will be provided and installed. Making references to quotations and drawings of draft.
- .4 Allow 10 days Consultant to examine each batch of documents submitted.
- .5 Changes to shop drawings by the Consultant are not intended to change the contract price. If this is the case, however, notify the Consultant in writing before starting work.
- .6 To provide shop drawings the changes that are requested by the Consultant in accordance with the Contract Documents. When submitting drawings again, notify the Consultant in writing of the changes that were made in addition to those required.
- .7 The documents submitted must be accompanied by a cover letter, two (2) copies, containing the following information:
 - .1 the date;
 - .2 the designation and number of the project;
 - .3 the name and address of Contractor;
 - .4 the designation of each drawing, specifications and sample and the number subject;
 - .5 any other relevant data.
- .8 The documents submitted must wear or indicate the following:
 - .1 the date of preparation and review dates;
 - .2 the designation and number of the project;
 - .3 the name and address of:
 - .1 the subcontractor;
 - .2 supplier;
 - .3 the manufacturer;
 - .4 the stamp of the Contractor, signed by the authorized representative of the latter, stating that the documents submitted are approved, the measures taken on site have been checked and that all meets the requirements of the Contract Documents;
 - .5 the relevant details to the relevant portions of the work:
 - .1 materials and manufacturing details;

- .2 layout or configuration, with dimensions, including those taken on site, as well as gaps and clearances;
 - .3 details of mounting or setting;
 - .4 characteristics such as power, flow rate or capacity;
 - .5 performance characteristics;
 - .6 reference standards;
 - .7 operational weight;
 - .8 wiring diagrams;
 - .9 single line diagrams and schematics;
 - .10 linkages to adjacent structures.
- .9 Distribute copies of shop drawings and data sheets once the consultant has completed the audit.
- .10 Submit one (1) electronic copy for verification and 6 copies for distribution audited shop drawings prescribed in the specification sections and according to the reasonable requirements of the Consultant.
- .11 If no shop drawing is required due to the use of a standard production product, submit one (1) electronic copy for verification and 6 copies for distribution of data sheets audited or documentation prescribed manufacturer in the technical sections and as requested by the Consultant.
- .12 Submit one (1) electronic copy for verification and 6 copies for distribution of reports audited tests prescribed in the technical sections and as requested by the Consultant.
- .1 The report signed by the official representative of the testing laboratory must certify that materials, products or systems similar to those proposed in the context of the work have been tested in accordance with the prescribed requirements.
 - .2 The tests must be made within three (3) years preceding the award of the contract.
- .13 Submit one (1) electronic copy for verification and 6 copies for distribution of certificates prescribed in the technical sections and as requested by the Consultant.
- .1 The documents, printed on official correspondence paper manufacturer and signed by a representative of the latter, must certify that the products, materials, equipment and systems supplied comply with the requirements of the tender.
 - .2 Certificates must bear a date after the contract award and indicate the name of the project.
- .14 Submit one (1) electronic copy for verification and 6 copies for distribution manufacturer's instructions specified in the technical sections and as requested by the Consultant.
- .1 pre printed documents describing the product installation method, materials and systems, including special instructions and data sheets showing the impedances, the risks and the safety measures put in place.

- .15 Submit one (1) electronic copy for verification and 6 copies for distribution of reports of spot checks by the manufacturer specified in the technical sections and as requested by the Consultant.
- .16 Reports of tests and checks have been made by the manufacturer's representative in order to confirm the compliance of products, materials, equipment or systems installed to the manufacturer's instructions.
- .17 Submit one (1) electronic copy for verification and 6 copies for distribution of operating and maintenance records specified in the technical sections and as requested by the Consultant.
- .18 Delete information that does not apply to work.
- .19 In addition to the current information, provide any additional details that apply to the work.
- .20 When the shop drawings were checked by the Consultant and any error or omission was detected or that only minor corrections were made, the prints are returned, and the work of shaping and installation can then be undertaken. If shop drawings are rejected, or the annotated copies are returned and corrected the shop drawings must be submitted again according to the above indications before the shaping and installation work can be undertaken.
- .21 The review of shop drawings by the consultant solely to verify compliance with the general concept of the data indicated on them.
 - .1 This examination does not mean that the Consultant approve the final design presented in the shop drawings, responsibility to the contractor that submits and does not relieve it of the obligation to transmit drawings of complete and accurate workshop, and comply with all requirements of the work and contract documents.
 - .2 Without limiting the generality of the foregoing to be restricted, it should be noted that the Contractor is responsible for the accuracy of the dimensions confirmed on site, the provision of information to the methods of shaping or construction techniques and installation and coordination of work performed by all bodies of trades.

1.5 SAMPLES

- .1 Submit three (3) samples of products for review, according to the requirements of specification sections. Label the samples indicating their origin and intended destination.
- .2 Ship Harbor samples paid to the business office or the Consultant's site office.
- .3 Notify Consultant in writing at the time of submission of product samples, differences they have with the requirements of the contract documents.
- .4 When the color, pattern or texture is the subject of a prescription, submit full range of samples required.
- .5 Changes to samples by the Consultant are not intended to change the contract price. If this is the case, however, notify the Consultant in writing before starting work.

- .6 Bring samples to changes that may be requested by the Consultant while respecting the requirements of the contract documents.
- .7 The samples examined and approved become the reference standard from which the quality of materials and workmanship of the finished works and installed will be evaluated.

1.6 SAMPLES OF WORK

- .1 Achieve sample required depending on the estimate.

1.7 PHOTO DOCUMENTATION

- .1 Submit every month with the progress report, or as directed by the Consultant, one (1) copy of digital photos folder color, standard resolution, in jpg format in an electronic format and on paper .
- .2 Project Identification: Project name and number and date of the photo.
- .3 Number of views: four (4).
 - .1 The views and location will be determined by the Consultant.
- .4 Photo submission Frequency: every month or as directed by the Consultant.
 - .1 Once the demolition work completed but before the works are hidden and as directed by the Consultant.

1.8 CERTIFICATES AND MINUTES

- .1 Submit the documents required by the Committee on Health and Safety relevant work immediately after the contract award.
- .2 Submit copies of insurance policies immediately after the contract award.

Partie 2 Product

2.1 NOT APPLICABLE

- .1 Not applicable.

Partie 3 Execution

3.1 NOT APPLICABLE

- .1 Not applicable.

END OF SECTION

1. OBJECT

- .1 See that the construction project and the activities of the institution are conducted without interruption or undue impediments and that the security of the institution is maintained at all times.

2. DEFINITIONS

- .1 "Prohibited items" means:
 - .1 Intoxicants, including alcohol, drugs or narcotics;
 - .2 The weapons or parts of weapons, ammunition and any object designed to kill, injure or disable a person or object modified or assembled for these purposes, the possession of which has not been authorized in advance;
 - .3 The explosives or bombs or their components;
 - .4 Any other item not described in paragraphs .1) .4 in) possessed without prior authorization, and may endanger the safety of persons or the penitentiary.
- .2 "Unauthorized smoking items" means products including tobacco, but not limited to, cigarettes, cigars, snuff, chewing tobacco and snuff, cigarette rolling machines, matches and lighters are considered unauthorized objects.
- .3 "Commercial vehicle" means any motor vehicle intended for the transportation equipment, equipment or tools required for the construction project.
- .4 "CSC" Means Correctional Service Canada.
- .5 "Director" means the director or the director of the facility, as applicable, or their authorized representative.
- .6 "Construction employees" means the employees of the main contractor, one of the sub-contractors, equipment operators, equipment suppliers, expertise and inspection laboratories and regulatory agencies .
- .7 "Departmental Representative" means the Project Manager of Public Works Government Services Canada (PWGSC) and the Correctional Service Canada (CSC) in the project.
- .8 "Perimeter" means the area of the establishment of safe belted fences or walls limiting inmate movement.
- .9 "Construction Area" means the area which, as indicated by the contract documents, the contractor will be allowed to work. This may or may not be insulated from the chamber of security of the institution. The "Construction Zone" includes the sidewalk, a lane on the street and some areas inside the building where work is required.

3. PRELIMINARY MEASURES

- .1 Before starting work, the contractor must meet with the Director to:
 - .1 To discuss the nature and scope of all project activities
 - .2 Establish acceptable security measures of both sides in accordance with this Directive and the specific needs of the institution.

-
- .2 The contractor must:
 - .1 Ensure that all construction employees know the requirements CSC security;
 - .2 Ensure that the security CSC requirements are always prominently displayed on the site;
 - .3 Work with facility staff to see that the construction employees comply with all safety requirements.

4. EMPLOYEES OF CONSTRUCTION

- .1 The contractor shall submit to the Director the list of names with birth dates for all employees to work on the construction site and a completed security verification form for each employee.
- .2 Provide two (2) weeks for processing requests for security clearance. No employee shall be admitted to the facility without security clearance duly approved nor without an identity card with a recent photo, such as driver's license of a province. Security permissions are unique to each CSC institution and any authorization obtained from another institution is not valid for the institution where this project will take place.
- .3 The ownership of property is prohibited for any person whom there are grounds to believe could present a security risk.
- .4 Any person employed on the construction site will be immediately expelled from the ownership of the property if:
 - .1 It seems to be under the influence of alcohol, drug or narcotics;
 - .2 She abnormal or disorderly conduct;
 - .3 She is in possession of contraband.

5. WORKING HOURS

- .1 The work week to the property from Monday to Friday, from 07:30 am to 18.00 hrs.
- .2 The work is not allowed on weekends or holidays days without express permission, we should pray for at least seven days in advance. In the event of an emergency, or in any other circumstances, this period may be canceled by the Director.

6. WORK OUTSIDE NORMAL HOURS OF WORK

- .1 The Director's permission is required for any work performed outside normal working hours. The Contractor shall give notice of at least forty-eight hours when it is necessary to perform work approved outside normal working hours. If working overtime to accomplish an urgent task, for example, pouring concrete or to ensure the safety of the construction, the contractor must notify the manager when he himself is made aware of such a need, then follow the directions given by the Director. Costs incurred by Canada because of this situation could be charged to the contractor.
- .2 Maintain a list of tools and equipment specified above throughout the construction project.

7. TOOLS AND EQUIPMENT

- .1 When propane or natural gas is used for heating of the project, the facility will require that an employee of the contractor oversees the construction site outside working hours

8. RESTRICTION ON SMOKING

- .1 Contractors and construction workers are not allowed to smoke inside correctional facilities or outdoors within the perimeter of a correctional facility. They should not, inside the perimeter, be in possession of unlicensed tobacco products.
- .2 Contractors and construction workers who violate this policy will be asked to immediately stop smoking or discard any product not authorized tobacco. If they refuse to comply, they will be ordered to leave the property.
- .3 He will be allowed to smoke only outside the perimeter of the correctional institution at a place designated by the Director.

9. PROHIBITED OBJECTS

- .1 Weapons, ammunition, explosives, alcohol, drugs and narcotics are prohibited on the premises of the establishment.
- .2 The discovery of object (s) banned (s) on the construction site and identification of the person (s) responsible (s) of the presence of these objects should be reported immediately to the Director.
- .3 Contractors must be alert to their employees and the employees of their subcontractors, since the discovery of contraband may result in cancellation of the security clearance of the employee. A serious violation may lead to expulsion from the site of the establishment of the company in question for the duration of the construction project.

10. TRAFFIC VEHICLES

- .1 The Contractor shall notify the Director twenty four (24) hours in advance of the arrival of heavy equipment such as concrete mixers, cranes, etc.

11. WORK STOPPING

- .1 At all times, the Director may order the Contractor, its employees, sub-contractors or their employees, not to enter the site or leave immediately due to ongoing security incident in establishment. The foreman of the site manager contractor must note the name of the CSC employee transmitting the order, the time of the investigation and comply with the order received as quickly as possible.

The Contractor must notify the Departmental Representative of the situation within twenty four hours of work stoppage.

12. CONTACT HELD

- .1 It is forbidden, without specific permission, to contact with detainees, talk to them, give them items or receive them. Any breach of this directive will result in eviction from the site of the employee responsible and the revocation of his security clearance.
- .2 Note that the cameras are not allowed on the property of CSC.
- .3 Notwithstanding the foregoing, if the director allows the use of cameras, it will be strictly forbidden to photograph detainees or CSC staff or any part of the property using the photo taken is not necessary to execution of this contract.

13. COMPLETION OF THE BUILDING PROJECT

- .1 Upon completion of the construction project or, if applicable, to the management of the facilities, the contractor will remove all materials, tools and equipment that are not identified as the construction contract to be left to the establishment.

Laferrière Community Correctional Center
Repairs and Rehabilitation of the building envelope
CSC Project No: 550-2-390-3202

Section 01 35 13
SPECIAL SECURITY PROCEDURES
Correctional Service Canada
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2018-05-28

END OF SECTION

Partie 1 General

1.1 SCOPE OF WORK

- .1 Carpentry demolition, membrane roofing and flashing required for the installation of new sections of wooden bridges, bi-layer membrane covering of elastomer bitumen and new metal flashing.
- .2 Removal of existing caulking around windows and other existing openings for the new caulk these elements after the installation of new brick facing.

1.2 RELATED REQUIREMENTS

- .1 Selective demolition of the brick veneer to allow the work of strengthening the foundation of the brick veneer and the new brick facing, according to Section 4 April 99 Masonry
- .2 The recovery of decorative stone elements of resettlement for facades in the restored facades of new bricks
- .3 Section June 10, 10 Carpentry
- .4 Section 07 52 00 Coverage modified bitumen membrane
- .5 Section 07 61 00 Flashings foil
- .6 Section 07 92 00 of Sealants

1.3 REFERENCES

- .1 Definitions
 - .1 Hazardous materials: Materials, commodities, goods and dangerous products including, without limitation, poisons, corrosives, flammable materials, ammunition, explosives, radioactive substances and other materials, misused, may adversely affect the health or welfare of persons or the environment.
- .2 References
 - .1 CSA International
 - .1 CSA S350, Code of Practice for Safety in Demolition of Structures.
 - .2 Department of Justice Canada (Jus)
 - .1 Canadian Environmental Assessment Act (CEAA), c. 37, 1995.
 - .2 Canada Act, Environmental Protection Act (CEPA), c. 33, 1999.
 - .1 Regulations on emissions of road vehicles and engines, SOR / 2003-2.
 - .2 Regulation amending the Regulation on emissions from road vehicles and engines, SOR / 2006-268.
 - .3 1992 Law on the Transportation of Dangerous Goods (TDG), c. 34.

1.4 ADMINISTRATIVE

- .1 meetings prior to installation

- .1 One (1) week before the start of the work being the installation work of this section, hold a meeting with the representative of the Contractor, Consultant and the Ministerial Representative, which will focus on the following.
 - .1 Project requirements.
 - .2 Existing conditions near where will be performed demolition work.
 - .3 The coordination of activities with those performed by other trades.
 - .2 Ensure the presence of all key personnel: site supervisor, project manager and representatives of contractors.
 - .3 In case of change of dates and / or meeting times established at the time of award of the contract, the Consultant will advise interested in writing 24 hours before the time announced for the meeting.
- .2 scheduling
- .1 Take the necessary steps to ensure that the timetable is respected.
 - .1 Inform the Consultant in writing of any delays.

1.5 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Shop Drawings
 - .1 Submit for review and approval, drawings, diagrams or details indicating the order of demolition, shoring and underpinning work and items used to do this.
 - .2 Shop drawings demolition work submitted must bear the seal and signature of a professional engineer registered or licensed in Canada, in the province of Quebec.

1.6 MANAGEMENT AND DISPOSAL

- .1 Carry out site every demolition products.

1.7 QUALITY ASSURANCE

- .1 Regulatory Requirements: Ensure that work is done in accordance with provincial / territorial and municipal regulations.

1.8 CONDITIONS OF IMPLEMENTATION

- .1 Environmental Protection
 - .1 Ensure that the work not produce any deleterious effect on wildlife, underground water and the adjacent streams, and they do not generate excessive levels of atmospheric or noise pollution.
 - .2 It is forbidden to burn waste and materials on site.
 - .3 No garbage or waste material should be buried on the site.
 - .4 Do not pour waste or volatile materials, such as mineral spirits, oils, petroleum based lubricants or toxic cleaning solutions into waterways or into storms and sewers.
 - .1 Ensure enforce appropriate methods of disposal of such waste throughout the duration of the work.
 - .5 Do not pour water containing suspended solids in streams, storm or sanitary sewers or on adjacent land or by pumping or otherwise.

- .6 Ensuring the drainage and containment of runoff water containing suspended matter or other harmful substances, in accordance with jurisdictional requirements.
- .7 Protect vegetation (trees, plants, shrubs and foliage) on the field and the adjacent properties, as indicated.
- .8 During the execution of the demolition work, erect temporary protective enclosures to prevent substances or foreign materials contaminate the air outside the site.
- .9 Covering the dry matter and the waste or to be slaughtered wet to prevent the lifting of the dust and debris. Apply a dust on all temporary access roads.

1.9 EXISTING CONDITIONS

- .1 If materials resembling asbestos materials applied with a trowel or by spraying or any other dangerous controlled substance are discovered during the execution of work, they should be halted, appropriate preventive measures should be taken and the Ministerial Representative must be informed on the spot. Do not resume work until you have received written instructions about the Ministerial Representative.
- .2 Existing conditions refer to the state structures to be demolished at the time of the site inspection.
 - .1 Remove, protect and store the recovered items for resettlement, as directed by the Consultant.
 - .2 Collect the items designated by the Ministerial Representative applicable and hand over to the designated place.

Partie 2 Product

2.1 MATERIALS AND EQUIPMENT

- .1 Equipment and heavy machinery
 - .1 Road vehicles must meet the requirements of the Emission Regulations of road vehicles and engines, SOR / 2003-2, made under CEPA and the Regulation amending the Regulation on emissions from road vehicles and engines, SOR / 2006-268, made under CEPA.
- .2 Stop the machine at the end of their use, unless extreme temperature conditions require uninterrupted operation.

Partie 3 Execution

3.1 PREPARATORY WORK

- .1 Protection of works in place
 - .1 Take steps to prevent movement or collapse of structures, utility lines, sidewalks, pavements, trees, landscaping, adjacent soil, adjacent properties, building parts to keep and to avoid damage.
 - .1 Provide and install parts bracing and shoring, end perform recovery work required underpinning.

- .2 If necessary, repair damaged structures during demolition work as Consultant Guidelines
- .2 Although support structures or covered structures. If the demolition work appears to be a danger to the rest of the structure or structure to the structures or adjacent structures, or for piping utilities take appropriate precautionary measures, stop work and notify the Consultant.
- .3 Ensure that the demolitions do not obstruct the drainage system of surface water, elevators and electrical and mechanical systems that must remain in operation.
- .2 Preparatory work surface
 - .1 Unplug and re-route the pipes for electric and telephone connections works or structures to be demolished.
 - .1 Ask warning signs on equipment and electrical conduits that must remain energized during demolition work to feed other works.
 - .2 Disconnect and plug the designated pipes mechanical installations.
 - .1 Remove the water and sewer lines located within the boundaries of the property, according to the competent authority or as directed by the Consultant.
 - .3 Do not interrupt the utility lines that are in service or on and crossing places and that should not be moved.
 - .4 Exterminate rodents and vermin, as required

3.2 DEMOLITION

- .1 Run the demolition work under the rules of art.
- .2 It prohibits the use of blasting for the execution of demolition work.
- .3 Remove contaminated or substances defined as hazardous by the competent authorities for environmental protection and rid the site by taking all necessary security measures to minimize the dangers during their removal and disposal.
- .4 Partially demolished structures as indicated.
- .5 Run the demolition work necessary for the execution of the indicated work.
- .6 Spray all concrete debris generated by the demolition of the foundations until suitably sized material for recycling.
 - .1 Demolish the foundation walls as indicated in the structural drawings.
 - .2 Do not backfill the demolition zones basements before they are inspected by the Consultant.
- .7 Remove the equipment, pipes and other elements that hinder the rehabilitation or repair of existing surfaces, end replace them as and measuring progress.
- .8 At the end of each working day, to ensure that the structure is safe and stable.
 - .1 Protect any time against the elements inside surfaces of the parts that will not be demolished.
- .9 Run the demolition work in order to raise the least possible dust. Keep wet materials as directed by the Consultant .

- .10 Remove structural members as indicated.
- .11 Unless otherwise indicated, remove and dispose of construction demolition materials, respecting the requirements of the competent authorities.
- .12 Remove the hardware and below appliances, store, protect, and then reinstall them in the new building by competent workers.
 - .1 The decorative stone items to keep and resettle in the new masonry.
- .13 Complete work in daylight whenever possible.
 - .1 At the end of each working day, close all light sources except those used for security purposes.

3.3 CLEANING

- .1 Divert excess materials to a site approved by the Consultant.
- .2 Take appropriate safety measures and allocate sufficient resources to prevent theft, vandalism and deterioration of materials.
- .3 Put the deposition materials in a place that will lend itself to reuse in new construction. Eliminate as much as possible handling duplicate.
- .4 To deposit the materials to an environmentally friendly disposal in a place that, firstly, facilitate their removal from the site and review by potential users interested in their re-employment, and, secondly, not hinder not dismantling, processing or trucking.
 - .1 Clearly label all materials deposited, indicating the nature and quantity of materials recovered.
- .5 Evacuate similar nature materials stockpiled and must be disposed of in the same ecological method, once the collection of these materials is complete.

- .6 Eliminate products and materials that are not intended for environmentally friendly disposal in accordance with relevant regulations.
 - .1 Use of approved waste, listed in the waste reduction plan.
 - .2 Written permission of the Ministry of Representative must be achieved if we are to move products and materials to landfills other than those specified in the waste reduction plan.

END OF SECTION

Partie 1 General

1.1 SCOPE OF WORK

- .1 The work of this section is primarily (but not limited to):
 - .1 Selective demolition of the brick veneer and existing blocks to allow the work of strengthening the foundation of the brick veneer and the new facing bricks and blocks.
 - .2 The recovery of decorative stone elements of resettlement for facades in the restored facades of new bricks.
 - .3 The supply, installation and all the tools and scaffolding required to complete the masonry bricks and blocks, and installation of precast concrete window sills (described in Section 03 45 00) as described in the drawings.
 - .4 Installation of decorative elements in existing stone salvaged from demolition.

1.2 RELATED REQUIREMENTS

- .1 Section 03 45 00: Parapet precast concrete.
- .2 Section 06 10 00: Carpentry.
- .3 Section 07 52 00: Coverage modified bitumen membrane
- .4 Section 07 62 00: Flashing and Sheet Accessories
- .5 Section 07 92 00: for Sealants

1.3 REFERENCES

- .1 ASTM International
 - .1 ASTM C216-10, Standard Specification for Facing Brick
- .2 CSA International
 - .1 CAN / CSA-A82 cooked masonry brick clay and shale.
 - .2 CAN / CSA-A165 CSA Standards on concrete masonry units contains: A165.1, A165.2, A165.3.
 - .3 CAN / CSA-A179 mortar and grout for fat masonry.
 - .4 CAN / CSA-A370 Connectors for masonry.
 - .5 CAN / CSA-A371 Masonry buildings.
 - .6 CSA S304.1 Calculation of masonry structures.
- .3 Health Canada - Information system on Hazardous Materials (WHMIS)
 - .1 Safety Data Sheets (MSDS).

1.4 DOCUMENTS / SAMPLES SUBMITTALS

- .1 Submit documents and samples required in accordance with Section 01 33 00 - / Submittal Procedures.
- .2 Data sheets
 - .1 Submit product data and instructions and the manufacturer's documentation for masonry materials. The technical data must include product characteristics, performance criteria, physical size, texture and color.
- .3 Shop Drawings
 - .1 The shop drawings submitted must bear the seal and signature of a professional engineer registered or licensed in Canada, in the province of Quebec.
 - .2 Shop drawings must include a list of rebar required and fold details and installation drawings of the latter.
 - .3 establishment of the drawings shall show the number of reinforcing elements, studs and anchors required as well as the dimensions, spacing and location of these parts.
- .4 samples
 - .1 Submit samples indicated below:
 - .1 Two (2) full-scale samples, the proposed bricks.
 - .2 Two (2) samples of mortar.
 - .3 Two (2) samples of each type required accessories and masonry flashings.
 - .4 Two (2) samples of each type suggested frames, connectors and anchoring to the masonry.

1.5 DOCUMENTS TO SUBMIT INFORMATION

- .1 Certificates: documents provided by the manufacturer certifying that the products, materials and equipment comply with the prescribed requirements.
- .2 Test reports:
 - .1 The test reports must certify that masonry units meet the requirements as to the physical characteristics and performance criteria.
 - .2 In addition to the data specified in the ASTM and CSA standards referenced, submit information on the initial water absorption rate (suction) of the masonry, in accordance with ASTM test standard C67.

1.6 DOCUMENTS TO BE SUBMITTED AT THE END OF WORK

- .1 Provide manufacturer's instructions, which shall specify requirements regarding the maintenance of the works, and a parts catalog with cuts and identifying numbers.

1.7 INSURANCE THE QUALITY

- .1 Qualification
 - .1 Masons: business or people specialized in the realization of masonry, with five (5) years of experience supporting references in similar projects to the subject of this section.

- .1 Masons working within this project must be able to carry out works that meet the quality standards defined by the samples of the work.

1.8 SAMPLES OF WORK

- .1 Build a sample panel to an outside wall of masonry, 1200 mm x 1800 mm, showing the colors and textures of masonry and details frames, fasteners, through flashing, weep, mortar joints, grouting, as well as the type of device and seat and quality of works.
- .2 The sample used for the following purposes:
 - .1 Evaluate the quality of works, substrate preparation, operation of equipment and the implementation of the materials.
- .3 Allow 24 hours Consultant and Departmental Representative to examine the sample before starting work.
- .4 Once accepted by the Consultant, the sample of the book will be the minimum standard in respect to the work covered by this section. It may be part of the finished work.
- .5 Do not start work once the mock-accepted in writing by the Consultant.

1.9 TRANSPORT, STORAGE AND HANDLING

- .1 Transport, store and handle materials and equipment in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials and equipment to site in original factory packaging, bear a label showing the name and address of the manufacturer.
- .3 Protective measures for storage and handling
 - .1 Keep dry materials until their implementation.
 - .2 Store materials under impermeable covers, on pallets or platforms placed on boards or planks, such that they do not rest directly on the floor.

1.10 CONDITIONS OF IMPLEMENTATION

- .1 Environmental conditions: not to make the assembly and implementation of the elements only when the temperature is above 4 degrees Celsius.
- .2 Implementation cold weather
 - .1 According to the requirements of CSA A371 and the requirements listed below.
 - .1 Maintain the mortar at a temperature of between 5 and 25 degrees C, until use or stabilization of the mix.
 - .2 Maintain the masonry and its constituent materials at a temperature between 5 and 25 degrees Celsius and protect premises against wind chill.
 - .3 Maintain the masonry at a temperature above freezing for at least seven (7) days after the implementation of the mortar.
 - .4 Preheat in speaker to a temperature above 10 degrees Celsius, unheated wall sections at least 72 hours before the mortar implementation.
- .3 Implementation hot weather

- .1 Cover with a waterproof cover, which does not stain, freshly made masonry structures so they do not dry out too quickly.
- .2 As long as the masonry is not completed or protected by flashings or other permanent structure, keep them dry with waterproof tarps that do not stain, which extend beyond the top and sides of works on a distance sufficient to protect the latter against the wind driven rain.
- .3 Spray mortar surfaces at regular intervals so as to keep them moist for at least three (3) days after implementation.

1.11 GUARANTEE

- .1 In the case of work covered by this Section, 4 April 99 - Masonry, the 12-month warranty period is extended to 24 months.

1.12 MATERIALS OR PRODUCTS ACCEPTABLE

- .1 When the materials or products are prescribed by their trademark, consult the "Instructions to Bidders" in order to know the procedure concerning the request for approval of materials or substitutes

Partie 2 products

2.1 MANUFACTURERS

- .1 Ensure that the manufacturer has at least five (5) years experience in the manufacture of components with similar or superior characteristics to those required in the case of the present work.

2.2 MASONRY ELEMENTS

- .1 clay bricks baked, in accordance with CAN / CSA-A82 standard.
 - .1 Type: Extruded BFX.
 - .2 Category: SW.
 - .3 Dimensions: 57 x imperial modular 192 x 92 mm (2-1 / 4 "x 7-5 / 8 " X3-5 / 8 ") or modular metric 57 x 190 x 90 mm (2-1 / 4 'x 7-1 / 2' 'X3-1 / 2' ')
 - .4 Colors and textures: extruded bricks pairing existing brick shaded orange and burgundy shaded smooth finish.

2.3 FRAMES AND ANCHORS

- .1 Rebar: shade 400, comply with CAN / CSA-A371 and CSA G30.18.
- .2 reinforcing son: lattice, in accordance with CAN / CSA-A371 and / or ASTM A496 / A496M.
- .3 Anchors and Tethers for brick veneer and support wall wood fiber and wood studs:
 - .1 Anchorages and seismic adjustable fasteners consist of an adjustable anchor plate gauge 14, of triangular fasteners wire 3 / 16"diam. (4.5 mm) (Vee Byna-tie) a seismic clip rigid PVC hold a reinforcing steel wire for continuous brick 3 / 16"diam. (4.5 mm). All hot-dip galvanized steel elements in accordance with ASTM A153 / A153M.

- .1 acceptable product, "Hohman & Barnard DW-10HS seismic anchors and ties with Seismiclip Interlock system" or approved equivalent.
- .4 Screw the anchor plates: 2 wood screws 6 mm hex # 12-14 stainless steel, as distributed by Senneco or approved equivalent .. sufficient length to penetrate at month 38 mm in timber Of wood.
- .5 All anchors must have the appropriate depth to the conditions present at the site, so that they overlap the siding they relate to at least 60mm deep, they are not distorted to meet this requirement. The Contractor will consider the actual dimensions on the site. No supplement will be granted by default to control the appropriate hardware.

2.4 MORTAR AND GROUT

- .1 Mortars: external installation: (Bedding Mortar) to CAN / CSA-A179.
 - .1 Cementitious materials, sand and dyes will be pre-mixed in the factory and then kneaded with water to the site to get the properties described in the data sheets for manufacturing an N-type mortar
 - .2 The mortar color should match that of the existing mortar. Color pigments are to be determined by the manufacturer and submitted samples to the consultant for approval.
 - .3 Prepare the mortar according to the supplier's instructions pre-blended material as the ratio of sand / water / cementing materials, the steps in the successive introduction into the mixture of all materials.
 - .4 Acceptable Products: Brand mortar Betomix PLUS Daubois KING 1-1-6 or King or approved equivalent.
- .2 Mortars: laying concrete elements according to CAN / CSA-A179
- .3 Grout Compliant with CAN / CSA-A179, Table 3.

2.5 ACCESSORIES

- .1 Flashings intramural: pressure-sensitive adhesive membrane of rubberized asphalt laminate to a film of polyethylene-wall flashing as "Blueskin® TWF Henry / Bakor, or equivalent approved" with primer and sealant recommended by the manufacturer.
- .2 Weep: filters propylene fibers, gray, 9 mm x 64 mm x 84 mm for aeration and drainage of water and moisture while blocking access to insects and other debris such as "Quadro-wind (wind cell) distributed by Senneco" or approved equivalent.
- .3 of the air gap drainage system: fiber filter of polypropylene with mosquito repellent membrane for air space of 25.4 mm x 191 mm high (in box 100 linear feet) to prevent mortar clogging the weep holes.

Partie 3 Execution

3.1 INSTALLERS

- .1 The work of implementation and assembly of masonry structures must be performed by qualified and experienced masons.

3.2 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, implementation instructions specified in the product catalogs and on packaging cartons, as well as information factsheets

3.3 EXAMINATION

- .1 Checking conditions: prior to the installation of masonry, ensure that the state of surfaces / materials previously implemented under other sections or contracts is acceptable and can perform the work in accordance with written instructions manufacturer.
 - .1 Make a visual inspection of surfaces / materials in the presence of representative of the Ministry and the Consultant.
 - .2 Immediately inform the Consultant of unacceptable conditions detected.
 - .3 Start the installation work only after correcting the unacceptable conditions and written approval of the Consultant.
 - .4 Ensure recessed elements are in the right place and ready to be incorporated into the masonry.
 - .5 The fact starting work means that the state media was satisfactory.

3.4 PREPARATORY WORK

- .1 Identify lines, levels and types of seating, and take the necessary steps to meet them.
- .2 Protect against damage and deterioration structures located near the work performed under this section. Verify the integrity of the sealing and protection of any opening, door, window or adjacent surface to prevent the spread of dust, water or other materials within the building and to prevent the glazing and frames doors and windows are soiled or damaged by the work.
- .3 Protecting existing masonry against damage caused by temporary work or scaffolding. Use protective elements lumber or plywood sheets with soft cushion needed.
- .4 Establish canvases effective protection to prevent the spread of dust during work, especially when hollowing joints.
- .5 Approval installations and protective measures before starting the works.

3.5 GENERAL

- .1 Unless otherwise noted, perform masonry work in accordance with CAN / CSA-A371.
 - .1 Device: seated to set running bond (called "Greek"), each vertical joint being perpendicular to the stretchers above and below and between the centers thereof.
 - .2 Decorative Device: standing and checkered with contrasting colored bricks as indicated in the drawings.
 - .3 Seat Height: 200 mm for one (1) row of concrete elements and one (1) ring] for three (3) rows of bricks and three (3) joints.
 - .4 Seals: pulled throat to places where they will be apparent, or when the application of paint or other type of finish coating is specified.
- .2 Carry out work in masonry plumb, level and alignment, in preparing well-aligned vertical joints.

- .3 Arranging the rows of bricks according to the apparatus required and so as to obtain proper height of seating and to maintain the continuity of the device above and below the windows, by cutting a minimum number of masonry units.

3.6 IMPLEMENTATION

- .1 Articles apparent masonry
 - .1 Remove items chipped, cracked or otherwise damaged apparent books and replace them in good repair.
 - .2 Cut the masonry in places where you need to install switches, sockets or other embedded or recessed elements.
- .2 housing
 - .1 Ask anchors and reinforcement at the locations indicated on drawings.
 - .2 Build in items to be incorporated in masonry structures.
 - .3 Prevent recessed elements move during construction. As to measuring the progress of work, frequently check the plumbing, alignment and position of these elements.
 - .4 Install not joint above the windows where indicated lintels.
- .3 Load Support
 - .1 In places where it is necessary to implement cell elements filled with poured concrete instead of solid elements, use of concrete 15 MPa in accordance with Section 03 30 00 - Poured in place.
 - .2 In places where it is necessary to implement cell elements filled with grout instead of solid elements, use the grout complies with CAN / CSA-A179.
 - .3 Ask construction paper in the empty filling grout; placing the construction paper to 25 mm back from the face of the elements.
- .4 Connecting to other works
 - .1 Cut openings in existing structures as indicated.
 - .2 Any holes in the walls must be approved by the Consultant].
 - .3 Repair damaged existing structures using materials corresponding to those used for the realization of these.
- .5 Embed flashing to the masonry in accordance with CAN / CSA-A371.
 - .1 In the case of exterior masonry, install flashings under the first course based on the foundation wall or slab on ground, on support brackets and steel brackets placed above the bays. also install flashings under seats having discharge nozzles and other locations indicated.
 - .2 In cavity walls and masonry veneer walls, install flashings in the outer wall, from the outside inwards, bend and make up against the lining wall over a height of at least 150 mm; also comply with the following requirements.
 - .1 In the case of a masonry wall lining, walnut flashing at a depth of 25 mm into the joints.
 - .2 In the case of a concrete wall lining, insert flashing into with channels.
 - .3 In the case of a wooden wall-frame lamination, staple flashing to the wall, under the coating of paper and glue flashing to the wall using an adhesive recommended by the manufacturer.
 - .3 Overlap joints with a width of 150 mm, and sealing with an adhesive.

- .6 In the vertical joints of the outer wall of the hollow walls and masonry veneer walls immediately above the flashings, install discharge nozzle 600 mm on center maximum, in the horizontal plane.

3.7 INSTALLATION OF FRAMES AND STUDS

- .1 Unless otherwise specified, install reinforcement, masonry spikes and anchors in accordance with CAN / CSA-A370, CAN / CSA-A371 and CSA S304.1.
- .2 Obtain approval of the Consultant regarding the location of frames, and anchors prior to the implementation of mortar and grout.

3.8 ATTACHMENT AND BONDING

- .1 Liaisonner walls consist of two walls (2) or more walls by means of seismic metal anchors, in accordance with CAN / CSA-A371 and CSA S304.1, and as indicated.
- .2 Attach the masonry veneer to the medium according to the National Building Code (NBC), with CSA S304.1 and CAN / CSA-A371 and as indicated.

3.9 EQUIPMENT OF HEADER AND BEAM LINK

- .1 Arm lintels and bond beams as indicated.
- .2 Set up the frames and the grout in accordance with CAN / CSA-A179, CAN / CSA-A371 and CSA S304.1.

3.10 GROUTING

- .1 Grouting in masonry in accordance with CAN / CSA-A179, CAN / CSA-A371 and CSA S304.1 and as indicated.

3.11 INSTALLATION OF ANCHORS

- .1 Provide metal anchors required and install as indicated.

3.12 ANCHORAGE INSTALLATION AND SIDE SUPPORT

- .1 Provide anchors and required lateral supports and install them in accordance with CSA S304.1 and as indicated.

3.13 INSTALLATION alleviated by PRECAST

- .1 Before assembling, place the prefabricated elements according to level scores and alignments established in compliance with the permissible tolerances.
- .2 Put prefabricated concrete spandrel on an N-type mortar bed
- .3 Grout with the same mortar for bricks with joints

3.14 TOLERANCE IMPLEMENTATION

- .1 The tolerances given in CAN / CSA-A371 apply.

3.15 CONTROL OF QUALITY

- .1 Inspection and testing will be carried out by the testing laboratory designated by [Departmental Representative.

3.16 PLASTER

- .1 Redo the plaster where indicated. Pair to the adjacent existing.

3.17 PROTECTION OF FINISHED WORKS

- .1 Protection against moisture
 - .1 As long as the masonry is not completed or protected by flashings or other permanent structure, keep them dry with waterproof tarps that do not stain, which extend beyond the top and sides of works on a distance sufficient to protect the latter against the wind driven rain.
 - .2 At the end of each working day, solidly covered with tarpaulins subject works partially or fully completed, which are not protected by an enclosure or shelter.
 - .3 Protect works to maintain the recommended environment in article 1.10 implementing conditions.

3.18 CLEANING

- .1 course work Cleaning: daily cleaning jobs
 - .1 Leave the place clean at the end of each working day.
- .2 Clean masonry as brick manufacturer's instructions and using cleaning products specifically recommend it. If no adverse effects appear and the mortar curing is complete, protect windows, sills, doors, trim and other works and to clean the brickwork.
 - .1 Repeat the cleaning as often as necessary to remove traces of mortar and other stains.
 - .2 Do not use acid-based cleaners.
 - .3 For hard works to clean, consult the manufacturer of bricks and submit its recommendations to the Consultant in writing. Follow the instructions of the Consultant.
 - .4 Final cleaning:
 - .1 Once completed, to clean the site to remove dirt and accumulated debris, due to construction work and the environment.
 - .2 Once the work of implementation and control of the complete performance completion remove materials and surplus materials, rubbish, tools and equipment barriers.
- .3 Protect masonry, among others, against brands, mortar burrs and other damage. Use protective tarps that do not stain.
- .4 Repair damage to adjacent materials and equipment for the installation of masonry.

END OF SECTION

Partie 1 General

1.1 SCOPE OF WORK

- .1 Manufacture and delivery to site of stone window sills precut for installation Section 4 April 99 Masonry.

1.2 RELATED SECTIONS

- .1 Section 4 April 99: Masonry.
- .2 Section 06 10 11: Carpentry.
- .3 Section 07 92 00: for Sealants

1.3 STANDARDS REFERENCES

- .1 ASTM International
 - .1 ASTM C97 / C97M-09 Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
 - .2 ASTM C98 / C98M-09 Method of Test for Compressive Strength of Natural Building Stone
 - .3 ASTM C99 / C99M-09 Standard Test Method for Modulus of Rupture of Dimension Stone.
 - .4 ASTM C170 / C170M-09 Standard Test Method for Compressive Strength of Dimension Stone.

1.4 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Section 01 33 00 - / Submittal Procedures.
- .2 Data sheets
 - .1 Submit product data and instructions and the manufacturer's documentation regarding pre-cut stones. The technical data must include product characteristics, performance criteria, dimensions, finish and limitations.
 - .2 Submit two copies of the design drawings and detailed calculations of precast concrete and types assemblies for verification by the consultant three weeks prior to manufacture.
- .3 Shop Drawings
 - .1 The shop drawings submitted must bear the seal and signature of a professional engineer registered or licensed in Canada, in the province of Quebec.
 - .2 Submit shop drawings in accordance with CSA A23.4 and CAN / CSA-A23.3.
- .4 samples
 - .1 Submit the consultant a sample of 300mm x 300mm x 25mm stone for approval of the finished and color. Indicate the maximum expected change color.

Start production of precast after receiving the written approval of the consultant.

1.5 QUALITY CONTROL

- .1 Test Reports: submit reports certified to tests indicate compliance with the physical characteristics and performance criteria.
- .2 Mock
 - .1 Build a sample sill precast stone, showing the colors and textures, frames, fasteners, through membrane flashings, the weep holes, joints, ranks, mortar and quality of works.
 - .2 The sample used for the following purposes.
 - .1 Judging the quality of works, preparatory work, equipment operation and application of products.
 - .3 If accepted, the sample may be part of the work.

1.6 TRANSPORT, STORAGE AND HANDLING

- .1 Transport, store and handle materials and equipment in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials and equipment to site in original factory packaging, bear a label showing the name and address of the manufacturer.
- .3 Storage and Handling
 - .1 Store materials and equipment on pallets so they do not rest on the ground, dry, in a clean, dry area, according to the manufacturer's recommendations.
 - .2 Store and protect precast spandrels against damage and contamination.
 - .3 Replacing materials and equipment damaged by materials and new equipment.

1.7 GUARANTEE

- .1 Provide 12 months warranty certificate for lighters in pre-cut stones against bursting and cracks.
- .2 The Contractor hereby certifies that the stone parapets are guaranteed against spalling or against any other obvious signs of cracking, except normal capillary shrinkage cracks.

Partie 2 Product

2.1 DESIGN CRITERIA

- .1 The stone works must be designed and constructed to withstand wind loads, the forces of gravity, seismic forces, movements of the skeleton of the building, movement associated with thermal contraction and expansion phenomena of the elements as well as normal wear and tear, including exposure to weather.
- .2 It is important to hire an engineer to design the support system and restraint of the coating. The engineer will perform the necessary calculations for all major components, including stones, fasteners, staples and anchors in accordance with the performance criteria set out in this section.

- .3 The calculations must consider the design loads, material properties, applicable safety factors, which must comply with applicable building codes and standards, as well as data below.
 - .1 The weight of the stones and the allowable loads.
 - .2 The thickness of the stones.
 - .3 The weight of the supports and anchors, including constraints, safety factors, load ratings and permissible loads.
 - .4 The dimensions of the supports, fasteners and anchors.
- .4 In the case of limestone, types of fasteners and connectors used must comply with the CAN / CSA-A370.
- .5 The manufacturing tolerances, assembly tolerances and bending of the structure must be taken into account in the design and manufacture of connectors. Refer to CAN / CSA-A370, CAN / CSA-A371 and ASTM C1242.
- .6 Prevent galvanic corrosion and other forms of corrosion, avoiding to direct contact of incompatible elements (metal and other), or by applying to the elements suitable protective coating

2.2 MATERIALS AND EQUIPMENT

- .1 Cement Portland complies with CAN / CSA-A3000 type GU color chosen by the Departmental Representative.
- .2 Hydrated lime: conform to ASTM C207, Type S
- .3 Aggregates: comply with CAN / CSA-A179, ASTM C144, type for masonry clean, dry, protected against humidity and frost and against contamination by foreign matter.
- .4 Pigments based on natural oxides.
- .5 Water: potable, clean and free of acids, alkalis and organic harmful substances.

2.3 Sills PREFABRICATED STONE

- .1 Dolomitic limestone sills of windows, the following characteristics.
 - .1 modulus of rupture (flexural) ASTM C99:
 - .1 dry sample 16.3Mpa
 - .2 wet sample 13.6 Mpa
 - .2 Density ASTM C97: 2711 kg / cm².
 - .3 Porosity ASTM C98: 0229%
 - .4 Compressive strength: ASTM 170
 - .1 Dry sample: 153.9 Mpa
 - .2 wet sample: 155.6 Mpa
 - .5 Durability to freeze / thaw cycles:
 - .1 Loss 7 cycles: 0.68 g / m²
 - .2 Cumulative loss 28cycles: 0.68 g / m²
 - .3 Cumulative loss 49cycles: 0.68 g / m²

2.4 FRAMES AND ANCHORS

- .1 Anchors, caught, studs: stainless steel grade 316.
- .2 Fasteners: in accordance with CAN / CSA-A370, made of wire or strip of stainless steel.
- .3 fastening devices: stainless steel.
- .4 Finishing workshop
 - .1 stainless steel: according to ASTM A508 / A508M, grade 316.

2.5 FLASHING

- .1 Membrane flashings: membrane air / vapor barrier.

Partie 3 Execution

3.1 INSPECTION

- .1 Verification of Conditions: Before installing lighters pre-cut stones, ensure that the state of surfaces / materials previously implemented under other sections or contracts is acceptable and can perform the work in accordance with manufacturer's written instructions.
 - .1 Make a visual inspection of surfaces / materials in the presence of Departmental Representative.
 - .2 Immediately notify the Departmental Representative of unacceptable conditions detected.
 - .3 Start the installation work only after correcting the unacceptable conditions and written approval of the Departmental Representative.

3.2 PREPARATORY WORK

- .1 Before putting them in place, apply a waterproofing coating on the back of the stones will be laid out.
- .2 Clean the surface of the stones with water and a stiff bristle brush.

3.3 TOLERANCE IMPLEMENTATION

- .1 verticality difference: more than 6 mm by 3 m long, more or less.
- .2 level difference: more than 13 mm per length of 6 m, more or less.
- .3 Deviation from the building lines: more than 13 mm per length of 6 m, more or less.
- .4 Gap section: 13 mm 6 mm or more and less.

3.4 IMPLEMENTATION - GENERAL

- .1 Do work in accordance with CAN / CSA-A371.
- .2 Ask frames and anchors.
- .3 Ask plumb stones, square and level, as indicated on the drawings and approved shop drawings.

- .4 Align the seal faces and facing stones according to the intended device and the specified tolerances.

3.5 IMPLEMENTATION WITH MORTAR

- .1 Ask lighters mortar hot stone perfectly coating the sides of vertical joint, unless otherwise indicated.
 - .1 Fill the lifting holes and the holes for receiving the anchors, clamps and bolts.
- .2 Lay the stone parapets depending on the device shown in the drawings.
 - .1 Ask anchors, studs and caught.
 - .2 Adjust the media, using shims if necessary, so that the plates are installed exactly where indicated, with uniform joints of the width indicated.
- .3 Realize joints of 10 mm thick.
- .4 Placing separating studs under stones in order to achieve uniform width joints.
 - .1 Placing lighters, once the mortar of the previous row has hardened sufficiently to support the weight thereof.
- .5 Bracing and anchoring lighters raised projecting.
- .6 Use soft wood shims to support water-soaked stone lighters and keep them aligned until the mortar has set.
 - .1 then Reset shims avoiding breaking them and fill the voids with grout.
- .7 Implement through membrane flashings to continuous corner supports, the projections, lintels steel and other similar obstructions to the flow of water to the ground.
- .8 Shaping seams once completed the initial mortar outlet.

3.6 CLEANING

- .1 course work Cleaning: daily cleaning work:
 - .1 Leave the place clean at the end of each working day.
- .2 Clean stone sills as and measuring progress.
 - .1 Let partially dry mortar droppings then removed by means of a stiff bristle brush.

3.7 PROTECTION FINISHED SURFACES

- .1 Protect the masonry work against any damage that may result from subsequent construction.
- .2 Use means and methods of protection that does not damage or stain the stone.
- .3 Remove the protective means at the time of substantial completion or when the work no longer be damaged.

END OF SECTION

Partie 1 General

1.1 SCOPE OF WORK

- .1 Roofing and changes to the structure of the existing ventilated roof to correct the slopes and drains of the installation.
- .2 Structural reinforcements (struts parapets)
- .3 Fillings existing skylights in the roof.
- .4 The new control joints on the roof.
- .5 The addition of vapor barriers and insulation for sealed skylights.
- .6 Replacements and Tyvek wall coverings in wall sections damaged by leaks or other damage.

1.2 RELATED REQUIREMENTS

- .1 Section 02 41 61 structure demolition.
- .2 Section 07 52 00 Coverage modified bitumen membrane
- .3 Section 07 61 00 Flashing foil

1.3 REFERENCES

- .1 ASTM International
 - .1 ASTM D1761, Standard Test Methods for Mechanical Fasteners in Wood.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN / CGSB-51.32, coating membrane, permeable to water vapor.
- .3 CSA International
 - .1 CSA B111 Wire Nails, Spikes and Staples (studs, plugs and steel wire jumpers).
 - .2 CSA O121 Plywood Douglas fir.
 - .3 CSA O141- Softwood Lumber.
 - .4 CSA O151-plywood on Canadian softwood.
 - .5 CSA O153 Poplar Plywood.
 - .6 CSA O325- Construction Sheathing.
- .4 National Lumber Classification (NLGA)
 - .1 classification rules for Canadian lumber.

1.4 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Section 01 33 00 - / Submittal Procedures.
- .2 Data sheets

- .1 Submit product data and instructions and the manufacturer's documentation for wood products and accessories. The technical data must include product characteristics, performance criteria, dimensions, finish and limitations.

1.5 QUALITY ASSURANCE

- .1 Wood Marking: Classification print of an organization recognized by the Accreditation Board of the Canadian Standards Commission lumber.
- .2 Marking plywood boards: according to the relevant CSA Standards and ANSI.

1.6 TRANSPORT, STORAGE AND HANDLING

- .1 Transport, store and handle materials and equipment in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials and equipment to site in original factory packaging, bear a label showing the name and address of the manufacturer.
- .3 Storage and Handling
 - .1 Store materials and equipment so that they do not rely on it in a clean, dry, well-ventilated, according to the manufacturer's recommendations.
 - .2 Store the timber in order to protect against marks, scratches and scrapes.
 - .3 Replace defective materials and materials or damaged materials and new equipment.

Partie 2 products

2.1 STRUCTURAL COMPONENTS, STRUCTURAL ELEMENTS

- .1 Lumber: softwood finish S4S (milled 4 side), with a moisture content not exceeding 19% (R-SEC).
 - .1 Meets CSA O141.
 - .2 Meets Standard Grading Rules for Canadian lumber, the NLGA.
- .2 Studs, joists, runners, furs, wedges, strapping, nailers, false frames, membrons, nailers for fascia and beams.
 - .1 Boards: "standard" category or higher.
 - .2 Wood dimension classification "light frame (light)", "Standard" category or higher.
 - .3 Poles and pieces of square wood "standard" category or higher.

2.2 PANELS

- .1 Plywood boards, : conform to CSA O325.
- .2 fir plywood Douglas (Douglas taxifolié) Compliant with CSA O121, classification "building", "standard" category.
- .3 Canadian softwood plywood: conforms to CSA O151, classification "construction", "standard" category.

- .4 Poplar plywood: conforms to CSA O153, classification "construction", "standard" category.
- .5 sheathing: use to replace existing damaged sections in exterior walls; wallboard, made from high quality wood fibers impregnated with wax and asphalt coated on both sides, inserts: in accordance with CAN / CSA-A247 standard and CAN / ULC-S706, Type II, Class 3, Grade 1 , CCMC 12044-L, and ASTM C-208, type IV, Grade 1. As the high performance coating ½ "BP: BH 900" with TYVEK type of air barrier and pressure sensitive adhesive tape to join the existing.

2.3 ACCESSORIES

- .1 Felt to cover: compliance with the CAN / CSA A123.2, Type S.
- .2 Vapor (for sealing skylights) Polyethylene sheet: conforms to the CAN / CGSB-51.34, type 1, of a thickness of 0.15 mm. With vapor barrier aluminum tape 75 mm to seal the joint ave the existing vapor barrier.
- .3 air sealant: polyurethane foam or polyethylene with closed cells.
- .4 seal products in accordance with Section 07 92 00 - Joint Sealants.
- .5 Nails, staples and horsemen: to CSA B111.
- .6 Bolts: with nuts and washers, with a diameter of 6.4 mm unless otherwise specified.
- .7 Patented fastening devices: toggle bolts, expandable pads with coach screws, screw sockets with lead or inorganic fiber recommended by the manufacturer.

2.4 FINISHED

- .1 Galvanized: according to CAN / CSAG164 for outdoor areas standard, woodwork pressure treated .The stainless steel devices are acceptable equivalence.
- .2 wood treatment product
 - .1 Treat dimension lumber with a product whose base is arsenic-free and without chromium, ProNature ACQ (Copper and Alkaline Quaternary), as the vacuum impregnation method, and under pressure in an enclosed cylinder in accordance with the standard CSA 080,1,2-2002, to a retention level of 6.40 kilograms per cubic meter for wood that comes into contact with soil, 3.84 kilograms per cubic meter for wood that does not come into contact with the ground.
 - .2 After the treatment with a water-soluble preservative, dry the material so that its moisture content does not exceed 19%.
 - .3 preservative applied to the surface: colored repellent preservative, suggested by the manufacturer of pressure treated lumber. Use for cuts and nicks treated wood under pressure, and where indicated.
 - .4 Use pressure-treated wood for any work to the roof.

2.5 INSULATION MATS

- .1 fiberglass batt insulation to CAN / ULC S702, latest revision, type 1, to be inserted between the studs, such as rose Owens Corning insulation or approved equivalent.
 - .1 Width: adapted to the spacing of the studs;
 - .2 Thickness: as indicated in the drawings and, in general, the thickness of the timber between which the insulation is installed.

- .3 Use for parapets, statements to the roof and to seal openings in the outer walls.

Partie 3 Execution

3.1 EXAMINATION

- .1 Checking conditions: prior to product installation, ensure that the state of surfaces / materials previously implemented under other sections or contracts is acceptable and can perform the work in accordance with written instructions maker.
 - .1 Make a visual inspection of surfaces / materials in the presence of representative of the Ministry and the Consultant.
 - .2 Immediately inform the Consultant of unacceptable conditions detected.
 - .3 Start the installation work only after correcting the unacceptable conditions and written approval of the Consultant.

3.2 USE OF MATERIALS

- .1 roofing panels
 - .1 fir plywood Douglas (Douglas taxi foliate) or Canadian softwood, coating category, or poplar plywood, coating category, standard, with squared edges, 19 mm thick.
- .2 cladding panels for replacing exterior walls damaged sections.
 - .1 Panels of insulating fibers, coating-type high-performance, coated, 13 mm thick.
 - .2 With air barrier of TYVEK type and pressure sensitive adhesive tape to join the existing.

3.3 INSTALLATION

- .1 Install square and plumb elements, according to the height dimensions, levels, and prescribed alignments.
- .2 Carry out continuous elements from the longest possible pieces.
- .3 Install joist elements so that their camber is up.
- .4 Install wall covering panels in accordance with manufacturer's written instructions.
- .5 Install roof covering panels in accordance with the NBC.
- .6 Install furs and shims to support the finishing elements of walls and ceilings, coatings, edgings, soffits, siding, and other works needed.
- .7 Installing around the false frames berries, strapping and fittings for supporting the frames and other structures provided.
- .8 Install the cleats and cants, nailing funds to fascia, rods nailing the membrons and other required timber supports and secure them by means of fastening devices made of galvanized or stainless steel.
- .9 Install the joists as indicated.
- .10 Assemble, anchor, fix, tie and brace elements to ensure the strength and rigidity required.
- .11 If necessary, countersink the holes so that the bolt heads do not form protrusions.

3.4 CLEANING

- .1 Cleaning course work: do the daily cleaning.
 - .1 Leave the place clean at the end of each working day.
- .2 Final Cleaning: upon completion remove materials / surplus materials, rubbish, tools and equipment.
- .3 Waste Management: separate waste materials for reuse / re-use and recycling.
 - .1 Remove the trays and construction of recycling bins and dispose of materials at appropriate facility.

3.5 PROTECTION

- .1 Protect installed products and components against damage during construction.
- .2 Repair damage to adjacent materials and equipment for the installation of carpentry elements.

END OF SECTION

Partie 1 General

1.1 SCOPE OF WORK

- .1 This section includes all materials, equipment, fixtures, tooling, and labor required for the supply and installation of the whole roofing system bilayer membrane of bitumen modified non-isolated ponds identified existing drawings and according to the requirements of this specification

1.2 RELATED REQUIREMENTS

- .1 Section 02 41 16 Structure demolition
- .2 Section 06 10 10 Carpentry
- .3 Section 07 61 00 Flashings foil
- .1 Section 07 92 00 of Sealants

1.3 REFERENCES

- .1 Unless otherwise indicated, achieve coverage in accordance with the applicable standard of covers Quote of the Association of Roofers Quebec masters (AMCQ).
- .2 Put a document issued by an organization officially recognized by the Standards Council of Canada that certifies that the proposed sealing system complies with the requirements of CAN / ULC-S107-03, "fire resistance test of building materials" class C.
- .3 Unless otherwise specified, comply with the following references:
 - .1 ONGC 37.56-M (9th Version) "modified bituminous membrane, Prefabricated, and Reinforced for Roofing."
 - .2 ASTM D2178: Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
 - .3 ASTM D3617: Standard Practice for Sampling and Analysis of New Built-Up Roof Membranes.
 - .4 CAN / CSA-O121: Plywood Douglas fir.
 - .5 CAN / CSA-O151: Plywood in Canadian softwood.
 - .6 CAN / CSA-B111: Wire Nails, Spikes and Staples.
 - .7 CAN / ULC-S107: Methods resistance test Standard fire roofing materials.
 - .8 CAN / ULC-S126: Test Standard Method flame spread under the bypass roofs.
 - .9 CAN / CGSB 37-GP-56: sheet of elastomer membrane for roofing and waterproofing.
 - .10 wind pressure: The assembly of the waterproofing system will be made to withstand the pressure and suction forces due to the winds of this area as defined by the Quebec Construction Code and CAN / CSA A123.21 and Factory Mutual (FM) (high winds), but not less than the requirements contained herein; the application of glue, notwithstanding the presence of mechanical anchoring, to be applied following the manufacturer's requirements to withstand winds.
 - .11 Applying the modified bitumen membrane and flashings according to manufacturer's manual application and according to the requirements of AMCQ, and not less herein.

1.4 WASTE MANAGEMENT

- .1 Recover packaging waste for reuse / recovery and reuse by the manufacturer.
 - .1 Collect and separate plastic waste, packaging paper and corrugated cardboard in accordance with waste management plan.
 - .2 Fold up metal, flatten and place them in a designated area for recycling.
- .2 The contractor must carry to places recovering all recoverable items such as metals (steel, etc.) and wood. The non-recoverable waste will be transported to the appropriate sites, the assembly according to the codes and standards.

1.5 COMPATIBILITY OF MATERIALS

- .1 It is essential that the materials used in making the waterproofing system are compatible and accepted by manufacturers of adhesives and membranes. Submit a written and signed statement certifying that all components of roofing systems are compatible.

1.6 WARRANTIES OF CONTRACTOR-SLATER AND MANUFACTURER

- .1 The manufacturer of sealants and the roofer will provide a written document issued to the owner and valid for 10 years, indicating that they will repair any leaks in the membrane to restore the system to a roof dry and water-tight, to the extent that manufacturing defects or installation led to water infiltration. The guarantee should cover the total costs of repair during the entire period of the guarantee. The guarantee must be transferable at no additional cost to subsequent purchasers of the building. The guarantee certificate should reflect these requirements.

1.7 QUALIFICATION CONTRACTOR - ROOFING

- .1 The roofing contractor or subcontractor must cover, at the time of the bids and during the work be recognized officially and in writing as the manufacturing contractor accredited, recognized or authorized by the manufacturer of waterproofing materials.
- .2 Only a skilled workforce in the roofing, the employment of a company with the right equipment and necessary to such work, be able to perform these

1.8 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Article 34 of the additional terms and conditions.
- .2 Data sheets
 - .1 Submit two (2) copies of the latest technical data on materials of the cover and detailing the product specifications, performance criteria, dimensions, finish and limitations.
 - .2 Submit two (2) copies of Material Safety Data Sheets (MSDS) required under WHMIS. The MSDS must indicate the VOC content of the following products:
 - .1 primary;
 - .2 bitumen;
 - .3 sealants;
- .3 samples
 - .1 Present for examination by the Consultant, two (2) samples of membrane type (12 "x 12"), flashing, etc. against flashings

- .4 Submit shop drawings.
 - .1 Shop drawings must indicate or show the details flashing.
- .5 Manufacturer's Certificate: submit a certificate attesting that the products meet the prescribed requirements, or they exceed them.
- .6 Test reports and assessment reports: subjecting test reports have been made in the laboratory, certifying that the membrane complies with the requirements of this section.
- .7 manufacturer's instructions for implementation: indicate, as appropriate, any special precautions relating to the bonding of the membrane sheets.

1.9 QUALITY CONTROL

- .1 Continuous monitoring of these roofing is ensured by a laboratory chosen by the owner.
- .2 Technical inspections and support required for the issuance of the joint manufacturer warranty are provided by the manufacturer's representative who must be notified in the proper time contractor for compliance work.

1.10 FIRE SAFETY

- .1 Before beginning work, checking to ensure the safety of the site and submit the procedures and proposed changes to minimize the risks and dangers of fire.
- .2 Follow the safety instructions recommended by the AMCQ, materials manufacturers, the local authorities concerned and any regulations.
- .3 At the end of each working day, use a heat detector gun to find out smoldering fires and fires partitions. The site organization must allow the presence of a responsible and / or a worker at least 4 hours after the welding work. An inspection must be performed at the end of the work by an employee of the roofing contractor who specializes in this kind of work and, if necessary, with the help of a member of the fire protection service of the municipality.
- .4 Never weld directly on combustible materials.
- .5 Be very careful to clean the site at all times. Throughout the implementation, be sure to have a fire hose (when possible) and at least one fire extinguisher ULC Class A, B and C, loaded and in perfect operation, within six meters of each torch. Apply security guidelines accompanying data sheets sealants. Ensure that the torch is not placed near flammable or combustible. Laflamme torch should in no way enter a place where it is not visible or can not be easily controlled.
- .6 The Contractor must include in the realization of its work barriers and / or protection panels, so as not to weld a membrane on flammable surfaces such as old wood, bare wood (not covered) or any other unsuitable surfaces this installation technique. Provide that all the wood " existing " must first be covered with a new primed plywood.
- .7 The modified bitumen membranes must be implemented by trained applicators who have received specific training for the prevention and protection against accidents due to the use of combustible materials, propane gas and flame. Applicators must have a Certificate issued by the AMCQ, confirming that they have passed the examinations connected during training on safe installation of welded membranes and prevention courses (scenarios) developed by the IPIQ .The precautions should be taken:
 - .1 The storage and handling
 - .2 The welding

- .3 The welding equipment
- .4 The use of the torch
- .5 Propane bottles.

1.11 CONDITIONS OF IMPLEMENTATION

- .1 environmental conditions
 - .1 Not to proceed to the implementation of the roofing material when the temperature is lower than -10 degrees Celsius in the case of a membrane bonded welding torch.
 - .2 The solvent-based adhesive should be applied at a temperature equal to or greater than -5 degrees Celsius.
- .2 The cover substrate must be dry and free from snow and ice. Use only dry materials and apply only when weather conditions do not encourage moisture infiltration in the cover system.

1.12 ADMINISTRATIVE

- .1 One (1) week before beginning work, hold a meeting with the representative of the roofing contractor, the Representative of the Ministry during which will be examined:
 - .1 project requirements;
 - .2 the condition of the structure and the roof deck;
 - .3 coordination of work of this section with those executed by other trades;
 - .4 the installation instructions provided by the manufacturer and the terms of the guarantee offered by the latter.

1.13 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Data sheets
 - .1 Submit two (2) copies of the latest technical data on materials of the cover and detailing the product specifications, performance criteria, dimensions, finish and limitations.
 - .2 Submit two (2) copies of Material Safety Data Sheets (MSDS) required under WHMIS. The MSDS must indicate the VOC content of the following products:
 - .1 primary;
 - .2 bitumen;
 - .3 sealants;
 - .4 filter cloth.
- .3 Submit shop drawings.
 - .1 Shop drawings must indicate or show the details flashing, control joints.
- .4 Present for examination by the Consultant, two (2) samples of membrane type (12 "x 12"), flashing, etc. against flashings
- .5 Manufacturer's Certificate: submit a certificate attesting that the products meet the prescribed requirements, or they exceed them.

- .6 Test reports and assessment reports: subjecting test reports have been made in the laboratory, certifying that the membrane complies with the requirements of this section.
- .7 manufacturer's instructions for implementation: indicate, as appropriate, any special precautions relating to the bonding of the membrane sheets.

1.14 QUALITY ASSURANCE

- .1 Qualification of the Installer: company or person specializing in the production of modified bitumen membrane roofs, approved by the manufacturer, with five (5) supporting references.

1.15 TRANSPORT, STORAGE AND HANDLING

- .1 Transport, store and handle materials and equipment in accordance with manufacturer's written instructions.
- .2 Storage and Handling
 - .1 Security: Comply with the safety requirements set out in the Information System Hazardous Materials (WHMIS), with respect to the use, handling, storage and disposal of bitumen as well as primary and sealants and caulking.
 - .2 Store materials in a dry, sheltered from the weather, and so they are not in contact with the ground.
 - .3 felt and membrane rolls must be stored upright; in the case of membranes, the covering strip shall be high.
 - .4 Do not remove the local or the storage area that the amount of materials that will be implemented on the same day.
 - .5 Make plywood circulation paths, over the completed facility to allow the passage of people and equipment.
 - .6 Keep sealants at a temperature equal to or greater than 5 degrees Celsius.
 - .7 Protect insulation against the light of day, weather and against harmful substance.
- .3 Management of packaging waste: recover packaging waste for recycling / reuse and recovery, pallets, crates, quilting, other packaging materials by the manufacturer in accordance with Section 01 74 21 - management and disposal of construction / demolition waste.
 - .1 Collect and separate plastic waste, packaging paper and corrugated cardboard in accordance with waste management plan.
 - .2 Fold up metal, flatten and place them in a designated area for recycling.

1.16 QUALITY CONTROL

- .1 Continuous monitoring of these roofing is ensured by a laboratory chosen by the owner.
- .2 Technical inspections and support required for the issuance of the joint manufacturer warranty are provided by the manufacturer's representative who must be notified in the proper time contractor for compliance work.
- .3 Continuous monitoring of the laboratory aims to ensure the execution accordance with the drawings and specifications and includes among others the following checks which must be reported to the site visit reports:
 - .1 Cleanliness, strength and unevenness (slope) surfaces to be waterproofed.
 - .2 The nature, thickness and number of waterproof membranes.

- .3 The overlapping and sealing joints of the membranes.
- .4 The construction of oil and metal flashing the parapets, walls, walls and / or the accompanying control or expansion.
- .5 The tightness of the bases of mechanical equipment, electricity or others.
- .6 The flow of rainwater to the drainage points.
- .4 In addition to monitoring, the representative of the manufacturer of modified bitumen membrane will conduct the necessary checks for the duration of the work to ensure compliance of the system for issuing guarantees. To this end, the contractor is responsible for notifying the representative work progresses manufacturer so that it can carry out the visits and site inspections for the issuance of their guarantees. Any comments on the quality of the installation will be reported in writing to the Consultant and the Ministerial Representative. The representative of the manufacturer will provide technical assistance to the applicator and, if necessary, will submit his recommendations to the membrane installation conforms to complement the manufacturer's requirements with this section.
- .5 Timely and at least 48 hours notice, the Contractor shall notify the Consultant, the Representative of the Ministry and the representative of the manufacturer so that they can perform a preliminary inspection of the roof of the bridge to receive the cover system and that its slopes, its strength, its cleanliness. This inspection includes the examination of construction and preparation of related structures such as walls, railings, eaves, downspouts, plumbing vents, and other work required.
- .6 After removal of the existing waterproofing, contractor and subcontractor must check surfaces and slopes of the bypass to detect any depression that could result in an accumulation of water on the surface of the new covers. If necessary, they must notify the representative of the Ministry and the manufacturer's representative before continuing the work.
- .7 The contractor shall ensure perfect continuity in the performance of roofing materials so that the insert in such work are not damaged by any cause whatsoever.
- .8 The owner reserves the right to take samples for analysis.
- .9 Run without fees, repairs and tests necessary cuts.
- .10 The roofing contractor is responsible for convening the laboratory and the Departmental Representative; if the roofing contractor mistakenly convenes for periods where their presence is not required, it will bear the cost of such a presence. After the installation of metal, the laboratory will ensure that the performance of works sheet metal complies with the specifications and meets the applicable installation requirements. It is recalled in the roofing contractor the importance of a perfect continuity in the performance of roofing materials that are incorporated in such work are not damaged by any cause whatsoever.

1.17 CONDITIONS OF IMPLEMENTATION

- .1 Ambient conditions:
 - .1 Not to proceed to the implementation of the roofing material when the temperature is lower than -10 degrees Celsius in the case of a membrane bonded welding torch, or when the temperature is less than -5 degrees Celsius.
 - .2 The solvent-based adhesive should be applied at a temperature equal to or greater than -5 degrees Celsius.

- .2 The cover substrate must be dry and free from snow and ice. Use only dry materials and apply only when weather conditions do not encourage moisture infiltration in the cover system.

Partie 2 Product

2.1 PERFORMANCE CRITERIA

- .1 It is essential that the different materials as part of the cover system are compatible with each other. Provide Departmental Representative a written declaration that the materials and components of the roofing system, as they have been implemented are compatible.
- .2 Cover system according to A123.21 CSA with respect to the dynamic resistance to uplift wind.

2.2 MEDIA PANEL WOOD FIBER AND FIREPROOF MEMBRANE UNDERLAYMENT

- .1 Description: high performance support panel comprised of a bituminous membrane SBS modified with a reinforcement nonwoven polyester, laminated cold bonding factory on a high-density Fiberboard flame retardant in the mass. The panel is 0.914 m x 2.44 m (3.0 ft x 8 ft). The upper side is covered with a plastic film thermo fuse. The membrane has combined longitudinal joints stickers and thermo welded. Width of braid 90mm (3.5 in.)
- .2 Total panel and membrane thickness: 14.9 mm
- .3 Panel density: 256 / kg / m3.
- .4 membrane thickness 2.2 mm
- .5 Panel thickness: 12.7 mm
- .6 Meets: CGSB 37.56-M (9th draft).
- .7 Reference Product: HD Soprabase OF SOPREMA or approved equivalent.

2.3 MEMBRANE UNDERLAYMENT FOR STATEMENTS AND PARAPETS

- .1 Description: Membrane composed of bitumen modified with SBS and reinforced with a composite nonwoven polyester and glass veil. The upper face is covered by a plastic film thermo sealable. The lower face is self-adhesive covered by a removable protective sheet the top face will be marked with three (3) lines to facilitate alignment of the rollers.
- .2 Thickness: 3 mm,
- .3 Dimensions 10 x 1 M
- .4 Weight: 3.5 kg / m2
- .5 Stripe width: 75 mm
- .6 Surface: Plastic film heat sealable
- .7 Under face; Adhesive, covered by a detachable protective sheet.
- .8 Application temperature: Grade summer (app ≥ 10 ° C
Winter Grade (applications between -10 10°C
- .9 Meets: ONGC 37.56-M (9th draft).

.10	Minimum requirements:	Longitudinal	Transverse
	Deformation resistance (kN / m)	10	10

Tensile strength (kN / m)	17	16
Elongation at break (%)	60%	65%
Tear resistance (N)	75	
Static puncture resistance (N)	420	
dimensional stability	-0.8	-0.2
temperature flexibility at -30 ° C.	No cracking	

- .11 Reference Product: SOPRALENE FLAM STICK SOPREMA or approved equivalent.

2.4 COLOR CHOICE FOR FINISHING PELLETS MEMBRANES

- .1 For common surfaces: gray.
.2 For traffic sidewalks: the selection of the consultant.

2.5 Membrane FINISHING THE PARTIES CURRENT, AND STATEMENTS PARAPETS.

- .1 Description: Membrane composed of SBS modified bitumen with flame retardant and a non-woven polyester reinforcement. The upper side is protected with colored granules, the lower face is covered by a plastic film thermo sealable. Thickness: 4 mm
- .2 Meets: ONGC 37.56-M (9th draft).
- .3 Minimum requirements:
- | | Longitudinal | Transverse |
|--|----------------------|------------|
| .1 Deformation resistance (kN / m) | 10 | 10 |
| .2 Tensile strength (kN / m) | 17 | 16 |
| .3 Elongation at break (%) | 60 | 65 |
| .4 Tear resistance (N) | 75 | |
| .5 Static puncture resistance (N) | 420 | |
| .6 dimensional stability | -0.8 | -0.2 |
| .7 Creep Resistance (° C) | ≥ 110 | |
| .8 temperature flexibility at -30 ° C. | No cracking | |
| .9 Tensile lap joint (kN / m) | Succeeded > 4 kN / m | |
- .4 Reference Product: SOPRALENE FLAM 250 GR SOPREMA or approved equivalent.

2.6 ADHESIVE

- .1 Adhesive bonding of the support panels of the bridging wood adhesive urethane bi-component low expansion, fast curing and without temperature limit.
.2 Reference product "DUOTACK SOPREMA" or approved equivalent.

2.7 SEALING PRODUCTS

- .1 Sealant: mastic bitumen multipurpose SBS modified fibers, aluminum pigment, mineral substances and solvents.
.1 Reference product "SOPRAMASTIC ALU SOPREMA" or approved equivalent.
.2 Sealants: Refer to Section 07 92 00 - Joint Sealants.

2.8 ROAD TRAFFIC

- .1 circulation made using paths additional thickness membrane topcoat of a color different from that of the membrane on which it is placed and chosen by the Consultant.

2.9 CARPENTRY

- .1 Refer to Section 06 10 00 - Rough Carpentry.

2.10 DRAINS MECHANICAL ROOF

- .1 Drains mechanical roof supplied and installed by mechanics see materials engineers.

Partie 3 Execution

3.1 REVIEW AND SURFACE PREPARATION

- .1 The review and preparation surfaces should be done according to the instructions contained in the technical documentation of the manufacturer of membranes.
- .2 Evaluation
 - .1 Before starting work, make sure:
 - .1 That the cover support is solid, solid, dry and free from snow, ice and frost, and it has been freed of dust and debris using a brush; It is prohibited to use calcium or de-icing salt to remove ice and snow;
 - .2 That the bridge has the minimum required drainage slopes
 - .3 That the walls and equipment mounting frames are in place;
 - .4 That roof drains are installed at appropriate level in relation to that of the finished surface of the cover;
 - .5 That nailing plates plywood or lumber were installed on the walls and parapets, as indicated
 - .3 Before beginning work, the Consultant, the Ministerial Representative and the foreman on the cover will be responsible for inspecting and approving particular the condition of the support, slopes and nailing funds and records the walls parapets, drains roof, plumbing vents, ventilation and other outputs and construction joints. If appropriate, a notice of non-compliance will be awarded to the contractor to make any adjustments. The beginning of the work will be considered as acceptance of the conditions for the realization of this work.
 - .4 Do not start any of the work before the surfaces are clean, smooth, dry and free of ice, snow and scrap materials. The use of salts and calcium is forbidden to remove ice or snow.
 - .5 Make sure the plumbing, carpentry and others have been duly completed.
 - .6 Do not place materials rainy or snowy weather

3.2 PROTECTION WORKS IN PLACE

- .1 Protect walls, flow paths and nearby structures of the places where we must raise or implement materials or equipment.
- .2 Provide and implement posters and safety barriers and keep them in good condition until the end of the work.

- .3 Remove promptly drops and bitumen stains.
- .4 To ensure that rainwater is discharged to the periphery of the roof, as far as possible from the building facade, and until drains or hoppers were installed and connected.
- .5 Protect coverage against damage that may be caused by, among other circulations. Take precautions deemed necessary by the Consultant.
- .6 At the end of each working day or when the work is interrupted due to bad weather, protect finished surfaces as well as the materials were removed from the room or storage area.
- .7 When metallic connectors are used, the latter and the metal elements of the substrate must be galvanized or treated against rust

3.3 LAYING THE PANELS and UNDERLAYMENT ROLLED FACTORY

- .1 Join the underlayer with the panels applied in specified spaced cords 150 mm adhesive on the common surface of 150mm on the perimeters and 150 mm in the corners. Areas perimeters and corners should be installed according to FM requirements as stated in the 1-29 PLPDS.

3.4 INSTALLATION UNDERLAYMENT SELF ON SURVEY AND PARAPETS

- .1 The primer layer should be dry at the time of application of the underlayer.
- .2 Before applying membranes, always burning of plastic wrap to cover when there is overlap (inside and outside corners and running surface).
- .3 The cross-struts, the angle cutting corner of the area to be covered by the next membrane roll.
- .4 Each edge will overlap the previous laterally following the lineage provided for this purpose, and 150 mm (6 inches) to abouts.
- .5 Positioning the pre-cut membrane. Detach 150 mm (6 inches) the silicone paper from the top of the parapet to keep the membrane in place.
- .6 progressively remove the remaining release paper while pressing the membrane with an aluminum applicator to promote adhesion. Using the same applicator for a perfect transition between the statement and the current surface. Pass a heavy roller on the whole of the membrane to ensure adhesion.
- .7 Installing a reinforcing gusset on all internal and external corners.
- .8 Always seal overlaps the end of the working day.
- .9 Avoid kinking, swelling or mouths of fish.

3.5 INSTALLATION OF BRACE GUSSETS

- .1 Install vis-à-vis reinforcing gussets all inside and outside corners.
- .2 Install the pockets by thermal welding after the implementation of the underlayer.

3.6 INSTALLATION sealable FINISH COAT ON CURRENT PART

- .1 Use the feed rollers double braid for the first edge. Failure to use a starter roll, the longitudinal overlap coated granules will be granulated by pressing the granules into the bitumen heated torch, over a width of 75 mm (3 inches).
- .2 From the drain, unwind dry waterproofing membrane on the sublayer, taking care to align the edge of the first edge with the roof edge.
- .3 The cross-struts, the angle cutting corner of the area to be covered by the next membrane roll.
- .4 Each edge will overlap the previous laterally following the lineage provided for this purpose and overlap of 150 mm (6 inches) at the ends. Spacing the transverse joints of at least 300 mm (12 in.).
- .5 Welding the topcoat with a welding torch on the undercoat layer so as to create a slight overflow of bitumen (3-6 mm) (0.12 in to 0.25 in).
- .6 Ensure proceed without overheating the membranes and their fittings.
- .7 Avoid kinking, swelling or mouths of fish.
- .8 Avoid use on finished surfaces; use rigid protective necessary.

3.7 INSTALLATION sealable FINISH COAT ON SURVEY AND PARAPETS

- .1 This topcoat is prepared by elements of 1 m (3.25 ft) wide.
- .2 Each edge will overlap the previous laterally following the lineage provided for this purpose and overlap of 150 mm (6 inches) the current surface. The statement finishing membranes must be delayed by at least 100 mm (4 inches) with respect to those of the current area topcoat to avoid excess thickness.
- .3 The cross-struts, the angle cutting corner of the area to be covered by the next membrane roll.
- .4 With a line, draw a straight line on the current surface at 150 mm (6 in) surveys and parapets.
- .5 With a torch and a blunt trowel, press the surface of granules in the layer of hot bitumen from the drawn line by line on the running surface and to the edge of raised or parapet, as well as the vertical portions granulated overlap.
- .6 This topcoat will be welded to the welding torch directly on the underlayer, proceeding from bottom to top.
- .7 Avoid kinking, swelling or mouths of fish.
- .8 Ensure proceed without overheating the membranes and their fittings.

3.8 INSTALLATION OF TRAFFIC SIDEWALK

- .1 Install traffic pavements following the same requirements as for the topcoat. Apply primer to the top coat before laying sidewalks.

3.9 EXECUTION OF SEALING THE OTHER DETAILS

- .1 Install waterproofing membranes to various roof details as specified details of the types illustrated in the manufacturer's technical documentation.

3.10 SEALING THE ROOF DRAINS

- .1 mechanical drains (drains mechanical AMCQ recommended by as Zurn ZA-107-96)
 - .1 Mechanical drains should be installed according to the manufacturer's recommendations and adjusted to a height allowing the formation of a minimum trough 13 mm (1/2 ") relative to the surface of the cover and sealed as follows:
 - .1 The wide flange (deck) of the iron roof drain that allows the membrane of membership must be coated with a primer.
 - .2 Join the underlayer on the deck of the drain with a layer of elastomeric bitumen sealant recommended by the manufacturer.
 - .3 Cover with a reinforcing strip of 1m x 1m centered on the apron.
 - .4 Followed by the topcoat raised torch.
 - .5 Cutting the membrane inside the drain flange and bolt aluminum dome up
 - .6 Aluminum dome is to allow maximum flow of rain water.

3.11 INSTALLATION TASSEaux BEVELED

- .1 Ask the Wood can't strips as indicated in the drawings.
- .2 Cut the cleats in order to change the angle of the back and the base so that they fit snugly to the wall and roof, in the case where the angle between them is greater than or less than 90 degrees.

3.12 INSTALLING TRAFFIC ROADS

- .1 Install extra membrane thickness constituting flow paths according to the manufacturer's instructions in accordance with the indications given.
 - .1 Applying a primer to the membrane topcoat for flow path, and the welding torch. Remove the cover edge.

3.13 CONTROL OF QUALITY

- .1 Inspection
 - .1 The inspection and testing of the coverage will be done by testing laboratory designated by the Departmental Representative.
 - .2 The representative of the Ministry will bear the cost of testing.
 - .3 The tests will be paid by the Employer.

3.14 CLEANING

- .1 Remove bitumen brands finished surfaces.
- .2 When finished surfaces are soiled as a result of work covered in this section, contact the manufacturer of the affected area for cleaning tips and keep his documented instructions.
- .3 Repair or replace the finished surfaces that have been altered or otherwise damaged as a result of the work covered by this section.
- .4 Waste Management: separate waste materials for reuse / re-use and recycling.
 - .1 Place in designated containers substances that meet the definition of toxic and hazardous waste.

- .2 Although identify storage areas of recovered materials and delineate by barriers and other safety devices.
- .3 Ensure emptied containers are sealed and stored properly.
- .4 Route adhesives and sealants unused to an authorized collection site for hazardous materials, authorized by the Departmental Representative.
- .5 It is forbidden to discharge adhesives, sealants and bitumen unused drains in a river, a lake, on the ground or any other location where it will pose a risk to health or for the environment.

END OF SECTION

Partie 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 16 structure demolition.
- .2 Section 06 10 10 Carpentry
- .3 Section 07 52 00 Coverage modified bitumen membrane
- .4 Section 07 92 00 Sealants

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A792 / A792M-, Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
 - .2 ASTM D523-, Standard Test Method for Specular Gloss.
- .2 Roofers Association of Masters of Quebec AMCQ
 - .1 Quote covers current edition.
- .3 Canadian Standards Association (CSA) / CSA International
 - .1 CSA B111, Wire Nails, Spikes and Staples.
- .4 Health Canada / Information System Hazardous Materials (WHMIS)
 - .1 Safety Data Sheets (MSDS).

1.3 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Data sheets
 - .1 Submit product data for the materials of manufacture flashings, and specifications and the manufacturer's documentation. The technical data must include product characteristics, performance criteria, dimensions, finish and limitations.
- .3 samples
 - .1 Submit two (2) samples of 100 mm x 100 mm for each color, each finite and each type of sheet proposed.
- .4 Quality assurance:
 - .1 Manufacturer's Instructions: provide the installation instructions provided by the manufacturer, including any indication to the special handling, implementation and cleaning

1.4 QUALITY ASSURANCE

- .1 meeting prior to the implementation of one (1) week before the start of the work covered by this section and installation work on site, hold a meeting with the representative of the

contractor, the consultant and the representative of the Ministry, during which will be examined:

- .1 The needs of the work;
- .2 The execution conditions and the state of the support;
- .3 The coordination of work with those executed with other trades;
- .4 The manufacturer's installation instructions and the terms of the guarantee offered by the latter.

Partie 2 Product

2.1 SHEETS

- .1 Steel sheet coated with a zinc-aluminum alloy, galvalume: commercial grade according to ASTM A792 / A792M AZ180, surface non-treated chemically, for painted finish, of a thickness of 0.45 mm bare. (26 gauge)

2.2 STEEL SHEET prefinished

- .1 prefinished steel sheets coated in the factory with a layer of polyester modified silicone
 - .1 Color: selected by the Consultant from standard colors offered by the manufacturer.
 - .2 Specular gloss: 30 units, with a maximum deviation of 5 units more or less, according to ASTM D523.
 - .3 coating thickness: at least 0.9 @ 1.1 mil.
 - .4 As the system "Weather XL Vicwest" or approved equivalent with limited 40-year warranty.

2.3 ACCESSORIES

- .1 protective paint coating anti base.
- .2 Plastic putty: in accordance with CAN / CGSB 37.5 standard.
- .3 Layer for metal flashing: self-adhesive bitumen membrane
- .4 sealants: silicone single non-marking component, low modulus, neutral-curing, color chosen by the Architect from the colors offered by the manufacturer in accordance with ASTM C920, Type S, Grade NS, CAN / CGSB-19.13 and 300.01 EIMA, latest editions as Spectrem 3 Tremco or approved equivalent.
- .5 securing tabs: the same material and same mold as the sheet used, of thickness identical to that of the sheet to be fixed. The securing tabs (stapling bands) are continuous.
- .6 fastening devices: the same material as the sheet used, in accordance with the CSA B111, flathead roofing nails and annular ring of appropriate length and thickness to the metal flashing.
- .7 Washers: the same material as the sheet used, 1 mm thick, with rubber gaskets.
- .8 Paint touch-ups: as recommended by the manufacturer of prefinished sheet.

2.4 SHAPING

- .1 The metal flashings and other sheet metal parts must be shaped in accordance with the details and indications AMCQ.
- .2 The parts must be shaped in lengths up to 2400 mm.
 - .1 It is important to foresee the joints, the game needed to expansion items.
- .3 Exposed edges must be folded 12 mm on their underside.
 - .1 The angles must be assembled mitered and sealed with a sealant.
- .4 The elements must be shaped square, level and accurately in the prescribed dimensions, so that they are free of any deformation or other defects that could affect their appearance or effectiveness.
- .5 Metal surfaces embedded in the concrete or mortar must be coated with a protective coating.

2.5 METAL FLASHING

- .1 Flashings, copings and fascia must be shaped in accordance with prescribed profiles, with steel sheet galvalume prefinished 0.45mm (26 gauge) thick.

2.6 SLEEVES SEAL

- .1 The sealing sleeves must be formed with the aluminum sheet. The sleeves should protrude at least 75 mm coated on the roof and be provided with a continuous flange 100 mm free open angles.
 - .1 The joints must be made by soft soldering or riveting.
 - .2 The diameter of the sleeve must be greater than at least 50 mm after the items that pass through the cover membrane.

2.7 Engravure BANDS AND COUNTER FLASHING

- .1 The bands engravure recessed for receiving the flashings must be [formed] formed with the sheet of 0.45 mm thick and be incorporated into the concrete or masonry in accordance with the details AMCQ.
 - .1 The elements must comprise oval fixing holes and be secured by means of fasteners to steel / plastic washer.
 - .2 The faces and ends of the elements must be covered with a plastic tape.

Partie 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with the requirements, manufacturer's written recommendations, including product technical bulletins, handling instructions, storage and implementation of products and indications datasheets.

3.2 INSTALLATION

- .1 Fit the metal works as detailed in the AMCQ and the manufacturer's instructions.

- .2 Fastener concealment, except where the Consultant has accepted that they be left exposed.
- .3 Put an underlayer before installing the sheet members.
 - .1 Although the subject and run 100 mm lap joints.
- .4 Munir against flashings flashings oil produced at the intersection of cover and walls, mounting rack or other vertical surfaces.
 - .1 Realize joints single agrafure well subjecting them to the stringers.
- .5 Closing the end seals and the seal by means of a sealant.
- .6 Install plumb and level bands engravure laid flush. Caulking the upper bands engravure by means of a sealant.
- .7 Insert metal flashing in the bands of engravure under the flashings against to form a seal.
- .8 Fold at least 25 mm the upper end of the flashing in the bands of engravure set back or in the mortar joints. Securely flashing in the joints with lead.
- .9 With a sealant, caulk flashings in the bands of engravure and against flashings.
- .10 Ask sealing sleeves at prescribed locations, around the elements passing through the cover membrane.

3.3 FANS ATTIC

- .1 Install roof between fans as indicated in the drawings.

3.4 CONTROL OF QUALITY

- .1 Spot checks by the manufacturer
 - .1 The manufacturer shall make recommendations for the use of the product and make periodic visits to check whether the implementation was performed according to the recommendations.

3.5 CLEANING

- .1 Perform cleaning.
- .2 After the implementation of works and control of the complete performance completion remove materials and surplus materials, rubbish, tools and equipment.
- .3 Keep the area clean and free of grease works, stains and fingerprints.

END OF SECTION

Partie 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 16 structure demolition
- .2 Section 04 04 99 Masonry
- .3 Section 06 10 00 Carpentry
- .4 Section 07 62 00 Flashing and sheet accessories

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM C920 Standard Specification for Elastomeric Joint Sealants.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN / CGSB-19.13 Sealant single component, elastomer, chemical polymerization.
- .3 Health Canada / Information System Hazardous Materials (WHMIS)
 - .1 Safety Data Sheets (MSDS).

1.3 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Submit documents and samples required in accordance with Section 01 33 00 - / Submittal Procedures.
- .2 Data sheets
 - .1 Submit product data and instructions and the manufacturer's documentation for the joint sealants. The technical data must include product characteristics, performance criteria, dimensions, finish and limitations.
 - .2 The manufacturer's data sheets must cover the following.
 - .1 Sealants.
 - .2 The primary.
 - .3 Sealants (all types), including their compatibility with each other.
 - .3 Submit two (2) copies of MSDSs required under WHMIS.
- .3 samples
 - .1 Submit two (2) samples of each color and each type of products.
 - .2 If necessary, for harmonization with adjacent materials, submit samples dried sealants that must be left exposed, and, for each proposed color.
- .4 Manufacturer's Instructions
 - .1 The instructions submitted must cover each of the products offered.

1.4 DOCUMENTS / ITEMS TO BE GIVEN TO COMPLETION

- .1 Submit documents / items required to deliver to completion].

- .2 operating and maintenance records: provide instructions for operation and maintenance for incorporation to the I manual and E.

1.5 TRANSPORT, STORAGE AND HANDLING

- .1 Transport, store and handle materials and equipment in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials and equipment to site in original factory packaging, bear a label showing the name and address of the manufacturer.
- .3 Storage and Handling
 - .1 Store materials and equipment in a clean, dry area, according to the manufacturer's recommendations.
 - .2 Replacing materials and equipment damaged by materials and new equipment.
- .4 Management of packaging waste: recover packaging waste for recycling / reuse by the manufacturer.

1.6 CONDITIONS OF IMPLEMENTATION

- .1 Ambient conditions:
 - .1 Proceed with the implementation of sealants only under the following conditions.
 - .1 The ambient temperature and the substrate are situated within the limits set by the manufacturer of the products or are greater than 4.4 degrees Celsius.
 - .2 The substrate is dry.
 - .3 The manufacturer's recommendations regarding temperatures, relative humidity and moisture content of the specific substrate for the implementation and drying sealants and special instructions for the use of these, are met.
- .2 Joint width
 - .1 Proceed with the implementation of sealants only when joint width is greater than that established by the product manufacturer for specified applications.
- .3 substrate
 - .1 Proceed with the implementation of sealants only after the substrate has been cleared of any contaminants that may prevent adhesion of the products.

1.7 REQUIREMENTS FOR THE ENVIRONMENT

- .1 Meet the requirements of Information System Hazardous Materials (WHMIS) regarding the use, handling, storage and disposal of hazardous materials as well as labeling and providing MSDS recognized by Health Canada.

Partie 2 Product

2.1 SEALANTS - DESCRIPTION

- .1 Type 1: Sealant single component, silicone Compliant with CAN / CGSB-19.13 standard and ASTM C920 Type S, Grade NS, Class 50, Use NT, M, G, A and O

- .1 joint movement capability (ASTM C 719) Extension or compression of +/- 50%
 - .2 Sealant validated by the SWRI-Sealant Waterproofing & Restoration Institute.
 - .3 Color choice of the Consultant from the range of the manufacturer's standard colors.
 - .4 minimum size of the seal 6.4 x 6.4 mm
 - .5 As the sealant to low modulus silicone, non-staining and picking up little dirt "Spectrem 2 Tremco" or approved equivalent.
- .2 Gaskets Fund, compressible and non-compressible
- .1 polyethylene foam closed cell elements.
 - .1 filling strips extruded cellular foam.
 - .2 Oversize elements from 30 to 50%.
 - .2 Antisolidarisation tape.
 - .1 polyethylene tape does not adhere to the sealant.

2.2 SEALANTS - LOCATIONS

- .1 Circumference of openings in the outer walls (bricks, blocks or prefabricated concrete elements), and whose frames are contiguous to top coating: Product type 1.
- .2 Joints formed atop walls non-load bearing masonry, to the underside of the elements in situ concrete: Product type 1.
- .3 Seals break in the brick veneer.

2.3 CLEANING PRODUCTS FOR JOINTS

- .1 non-corrosive cleaning products and non-messy, compatible with the materials constituting the gaskets and sealants according to the manufacturer's written recommendations sealants.
- .2 Primary: according to manufacturer's written recommendations sealants.

Partie 3 Execution

3.1 EXAMINATION

- .1 Checking conditions: prior to the installation of joint sealants, ensure that the state of surfaces / materials previously implemented under other sections or contracts is acceptable and allows for work according to the manufacturer's written instructions.
 - .1 Make a visual inspection of surfaces / materials in the presence of representative of the Ministry and the Consultant.
 - .2 Immediately inform the Consultant and Departmental Representative of unacceptable conditions detected.
 - .3 Start the installation work only after correcting the unacceptable conditions and written approval of the Consultant.

3.2 SURFACE PREPARATION

- .1 Check the dimensions of the joints to realize the state of surfaces, in order to obtain an adequate width-depth ratio for the implementation of joint funds and sealants.
- .2 Ridding the joint surfaces from unwanted material, including dust, rust, oil, grease and other foreign matter that could affect the quality of works.
- .3 Do not apply sealant on the joint surfaces have been treated with a wood filler, a curing product, a water repellent or other type of coating, unless prior trials have confirmed the compatibility of these materials. Remove coatings already covering the surfaces as needed.
- .4 Make sure the gasket surfaces are well drained and they are not frozen.
- .5 Prepare surfaces in accordance with manufacturer's instructions.

3.3 PRIMING

- .1 Before applying the primer and caulk, masking necessary adjacent surfaces to prevent dirt.
- .2 Apply the primer on the side surfaces of immediately before joined to implement the sealant in accordance with the instructions of the manufacturer of the latter.

3.4 FITTING THE BOTTOM SEAL

- .1 Ask the bond breaker tape where required, according to the manufacturer's instructions.
- .2 Compressing the about 30%, posing the seal base depending on the depth and the desired joint profile.

3.5 DOSAGE

- .1 Assay components in strict accordance with the instructions of the manufacturer of the sealant.

3.6 IMPLEMENTATION

- .1 Applying the sealant
 - .1 Implement the sealant according to the manufacturer's written instructions.
 - .2 To achieve net joints, ask the need of masking tape on the edge of the surfaces to be joined.
 - .3 Apply the sealant in a continuous cord.
 - .4 Applying the sealant using a gun provided with a nozzle of appropriate size.
 - .5 The supply pressure should be high enough to allow filling of empty and perfect sealing of joints.
 - .6 Realize joints to form a continuous sealing bead free edges, folds, subsidence, air voids and coated dirt.
 - .7 Before it forms a skin on the joints, shaping exposed surfaces to give them a slightly concave profile.
 - .8 Remove excess sealant as and measure the progress of work, and at the end of the latter.
- .2 Drying

- .1 Ensure the drying and curing sealants as directed by the manufacturer of these products.
- .2 Do not cover the joints made with sealing products before they are dry.

3.7 CLEANING

- .1 Cleaning course work: do the daily cleaning.
 - .1 Leave the place clean at the end of each working day.
 - .2 Clean adjacent surfaces immediately.
 - .3 As to measuring the progress of work, remove excess sealant and burrs with the recommended cleaners.
 - .4 Remove the masking tape at the end of the initial period of engagement of the sealant.
- .2 Final Cleaning: upon completion remove materials / surplus materials, rubbish, tools and equipment.
- .3 Waste Management: separate waste materials for recycling.
 - .1 Remove the trays and construction of recycling bins and dispose of materials at appropriate facility.

3.8 PROTECTION

- .1 Protect hardware and installed items against damage during construction.
- .2 Repair damage to adjacent materials and equipment for the installation of joint sealants.

END OF SECTION

Partie 1 Overview

1.1 RELATED SECTIONS

- .1 Section 02 41 16 Structure Demolition
- .2 Section 06 10 00 Carpentry.
- .3 Section 09 91 23 Painting - Interior Work

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C36 / C36M01, Specification for Gypsum Wallboard.
 - .2 ASTM C47501, Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
 - .3 ASTM C84001, Specification for Application and Finishing of Gypsum Board.
 - .4 ASTM C100201, Specification for Steel Tapping Screws Self Piercing for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
 - .5 ASTM C104799, Specification for Gypsum Wallboard and Accessories for Gypsum Veneer Base.
- .2 Association of the Wall and Ceilings International Industries (AWCI)
- .3 Underwriters Laboratories (ULC)
 - .1 CAN / ULCS1021988 Test Method for Surface Burning Characteristics of Building Materials and assemblies.

1.3 DOCUMENTS / SAMPLES SUBMITTALS / INFORMATION

- .1 Data sheets
 - .1 Submit product data and instructions and the manufacturer's documentation for the drywall coatings. The technical data must include product characteristics, performance criteria, dimensions, finish and limitations.
- .2 samples
 - .1 A post (1) sample of 300 mm x 300 mm of plasterboard.

1.4 TRANSPORT, STORAGE AND HANDLING

- .1 Transport materials without altering the packaging, container or the original batch or hide the trademark and the name used by the manufacturer.
- .2 Store materials inside, dry and well level in a tank. protect them from weather, other materials and damages that may be inflicted during the construction work and other activities.
- .3 Handle the gypsum board so as not to damage their surfaces or ends. also protect parts and metal fittings for damage or twisting that can damage them.

1.5 CONDITIONS OF IMPLEMENTATION

- .1 Maintain the room temperature at least 10 Celsius degrees and not more than 21 degrees Celsius for 48 hours before and during the setting and grouting of plasterboard, and for at least 48 hours after completion of the joints.

- .2 Ask the plasterboard and grouting tiles on dry surfaces and not frosted.
- .3 Ensure good ventilation in areas of the building covered with drywall to remove excessive moisture that could prevent drying of grouting material immediately after application.

1.6 MATERIALS OR PRODUCTS ACCEPTABLE

- .1 When the materials or products are prescribed by their trademark, consult the "Instructions to Bidders" in order to know the procedure concerning the request for approval of materials or substitutes.

Partie 2 products

2.1 MATERIALS / MATERIALS

- .1 Common rings: in accordance with ASTM C36 / C36M, flame retardant X-type, 13 mm thick, 1200 mm wide and the maximum usable length, with squared edges at the ends and beveled edges on the sides. To be used for ceilings.
- .2 Screw steel drills: to ASTM C1002.
- .3 Joint compound: in accordance with ASTM C475, asbestos.
- .4 Thermal insulator:
 - .1 For ceilings: mats, in accordance with the CAN4-S114 standard, non-combustible, fiberglass or rock fiber, to recycled content of 50% or more, thicknesses shown in the drawings, a density of 15kg / m³ minimum such LBS insulating Roxul or approved equivalent.

Partie 3 Execution

3.1 MOUNTING

- .1 Unless otherwise noted, perform the installation and finishing of plasterboard in accordance with ASTM C840.
- .2 Ask the coating gypsum board in accordance with ASTM standard c1280.
- .3 Install level elements, the allowable deviation is 1: 1200.
- .4 Framing of furring openings housing the access panels, light fixtures, diffusers, grilles.

3.2 INSTALLATION

- .1 Do not place the drywall before waiting frames, anchors, blocks, acoustic insulation materials and electrical and mechanical installations are approved.
- .2 Attach the drywall to the fur or wood frame with screw anchors. Fit the screws at 300 mm centers maximum.
 - .1 Coating a single layer
 - .1 Ask the drywall ceiling in accordance with ASTM C840.
 - .2 Ask the plates vertically or horizontally, in the direction which will reduce
- .3 Ask the drywall ceiling in the direction that will minimize the number of butt joints. Stagger the joints of the ends of at least 250 mm.
- .4 Lay the sheets with the side of outside siding.
- .5 Do not place a damaged or wet drywall.

3.3 INSTALLATION

- .1 Mounting the bracket accessories, plumb or level, and firmly secure the expected plan. Use full length pieces where possible. Make tight fitting joints, aligned and securely attached. Trim tab angles and adjust perfectly, leaving no rough or uneven edges. Fix the elements with the pressure sensitive adhesive applied along their whole length.
- .2 Ask the flush moldings around the perimeter of suspended ceilings.
- .3 Installing moldings outcrop at the junction of plasterboard and surfaces without covermount, as well as various locations shown. Seal the joints with a sealant.
- .4 Finishing joints between the plates and in the nips by means of the following products: dope, and coated tape for tape. Apply these products according to the manufacturer's recommendations and smooth thinning the right way to catch the finish of the plate surface.
- .5 Finishing drywall: giving plasterboard ceilings coatings conform finished the requirements set out in the document is Recommended Specification of Gypsum Board Finish Levels of the Association of the Wall and Ceiling Industries (AWCI) International. The finish must comply with degree 4.
 - .1 Degrees finishing
 - .1 Level 0: No jointing product, accessory or required finishing element.
 - .2 Degree 1: installation with joints and interior angles covered with a tape embedded in the joint compound. The jointed surfaces must be free of pipe dope surplus, but the tool marks and dents are acceptable.
 - .3 Grade 2: Coyer the tape placed on the seals and the interior angles in a pipe dope and applying a separate layer of paste on the joints, corners and the head of the fastening devices and other accessories used. The jointed surfaces must be free of pipe dope surplus, but the tool marks and dents are acceptable.
 - .4 Grade 3: Coyer the tape placed on the seals and the interior angles in a pipe dope and applying two different layers of dough on the joints, angles and the head of the fastening devices and other accessories used. The jointed surfaces must be smooth and free of tool marks and dents.
 - .5 Level 4: Walnut tape placed on the seals and the interior angles in a pipe dope and applying three distinct layers of paste on the joints, corners and the head of the fixing devices and other accessories used. The surfaces must be smooth and free of tool marks and dents.
 - .6 Level 5: Walnut tape placed on the seals and the interior angles in a pipe dope and applying three distinct layers of paste on the joints, corners and the head of the fixing devices and other accessories used. then apply a thin layer of facing coated on the entire surface of the coating in place. The jointed surfaces must be smooth and free of tool marks and dents.
- .6 Fill the depressions left by the screw head with the sealing compound and the coating tape until a smooth surface flush with the adjacent surfaces of the drywall, so that these depressions are invisible once the finish.
- .7 Lightly sand irregular ends and other imperfections. Avoid sanding adjacent surfaces.
- .8 Once installation is complete, the work must be smooth, level or plumb, free from ripples and other defects, and ready to be coated with a finish coat.
- .9 Ensure the protection of plasterboard coatings to ensure they are not damaged or deteriorated to the substantial completion date.

END OF THE SECTION

Partie 1 General

1.1 SUMMARY

- .1 Section contents
 - .1 Materials, products and methods associated with the application, on site, paint coatings on substrates new interior, including painting new drywall ceilings under the skylight roof removed.
- .2 Related requirements
 - .1 Section. September 21 16 plasterboard covering

1.2 REFERENCES

- .1 Master Painters Institute (MPI)
 - .1 MPI Architectural Painting Specifications Manual particularly covering component identification, evaluation substrates, paint systems, preparatory work and the list approved products.
- .2 Department of Justice Canada (Jus)
 - .1 Canada Act, Environmental Protection Act (CEPA), (1999), c. 33.
- .3 Environmental Protection Agency (EPA)
 - .1 EPA Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings).
- .4 Health Canada / Information System Hazardous Materials (WHMIS)
 - .1 Safety Data Sheets (MSDS).
- .5 National Code of fire prevention in Canada

1.3 QUALITY ASSURANCE

- .1 Qualifications
 - .1 The Contractor must be able to demonstrate that it has at least [five (5) years of experience in performing similar work. List the three (3)] last comparable projects, specifying there the name and location of the project, the contractual authority of the estimate and the name of the project manager.
 - .2 The paint work must be performed by skilled workers who hold a "man of competence Certificate of trade."
 - .3 Apprentices can also be engaged on the condition that they work under the direct supervision of a skilled worker in accordance with the regulations governing this trade.
- .2 Comply with the latest requirements of the MPI with respect to interior work of paint coatings, including those for cleaning and surface preparation and application of primary or print painting.
- .3 Products used, either primary or printing products, paints, coatings, varnishes, stains, varnishes, fillers, diluents, solvents and the like, must be included in the latest version of

the list MPI approved products, and all products forming the chosen paint system must be from the same manufacturer.

- .4 Keep purchase receipts, invoices and other documentation to establish, at the request of the Consultant, the work conforms to specified requirements MPI.
- .5 Quality standard: the examined surfaces must, under the planned final lighting, meet the following requirements.
 - .1 Ceilings: no defects visible to an observer on the ground at an angle of 45 degrees relative to the surface being examined.
 - .2 The color and the gloss of the topcoat must be uniform over the entire tested surface.

1.4 PERFORMANCE REQUIREMENTS

- .1 Environmental Performance Requirements
 - .1 paint products used must comply with the requirements for obtaining the mention * environmental choice + E2 MPI, granted based on the content of volatile organic compounds (VOC) as determined by number 24 method of the Environmental Protection Agency (EPA).

1.5 TIMETABLE

- .1 Establish work schedules with the Representative of the Ministry so as to avoid disturbing building occupants.
- .2 Submit calendar of the various stages of painting Departmental Representative and the Consultant for review, and at least 48 hours before the start of the work.
- .3 Get written permission from the representative of the Ministry for any change in the schedule.

1.6 DOCUMENTS / SUBMITTALS

- .1 Submit product data and manufacturer's instructions regarding the implementation or application of each product and each paint coating in accordance with Section 01 33 00 documents and to submit samples.
- .2 Submit samples required in accordance with Section 01 33 00 documents and to submit samples.
 - .1 Submit samples of all colors available for review and selection and specify when the color range is limited.
 - .2 Submit for painting products and coatings used, MSDSs required Information System on Hazardous Materials (WHMIS).
- .3 Documents / Elements to submit to completion
 - .1 Provide maintenance data for incorporation into maintenance manual à completion.
 - .1 Submit a record of all the products used. Indicate all products comprising each system, stating the following information for each of them.
 - .1 The name, type and use of the product (ie the materials and where they are applied).
 - .2 The manufacturer's product number.

- .3 The colors of the code numbers.
- .4 The reference given to the product as classified by the Environmental Choice Program MPI.
- .5 Material Safety Data Sheets (MSDS) from the manufacturer of each product.

1.7 MAINTENANCE

- .1 Materials / replacement materials
- .2 Providing materials / equipment replacement / replacement required.
- .3 A post (1) containing four (4) liters of each type and each color finish product. Identify the color and type of product following the list of colors and the specified paint system.

1.8 TRANSPORT, STORAGE AND HANDLING

- .1 Packing, shipping, handling and unloading
 - .1 Packaging, shipping, handling and unloading of materials and products according to the manufacturer's written instructions.
- .2 Acceptance of materials and products
 - .1 Identify the products and paint coating and the materials and products used by labels indicating the following:
 - .1 the name and address of the manufacturer;
 - .2 the type of paint or coating;
 - .3 compliance with standards or the relevant requirements;
 - .4 the color number, according to the list of specified colors.
- .3 Remove from construction materials and products damaged, open or refused.
- .4 Storage and Protection
 - .1 Provide a secure storage area, although dry and maintained at a controlled temperature and maintain it properly.
 - .2 Store materials and products away from heat sources.
 - .3 Store materials and products in a well-ventilated place, the temperature is between 7 degrees Celsius to 30 degrees Celsius.
- .5 The storage temperature of temperature-sensitive products should never be less than the minimum recommended temperature by the manufacturer.
- .6 Keep clean and orderly areas used for storage, cleaning and surface preparation. Once the work is completed, restore these areas to their original state of cleanliness.
- .7 Remove from storage area only the quantities of products which will be implemented on the same day.
- .8 Fire Safety Requirements
 - .1 Providing one (1) 9 kg extinguisher for ABC lights and place it close to the storage area.

- .2 Place in sealed containers, ULC, oily rags, waste, empty containers and materials liable to spontaneous combustion and remove the containers from the site daily.
- .3 Handle, store, use and dispose of products and flammable and combustible materials in accordance with the requirements of Canada's National Fire Prevention Code.
- .9 Management and Disposal
 - .1 Separate waste materials for reuse / re-use and recycling.
 - .2 Remove from site all packaging materials and transport them to the appropriate recycling facilities.
 - .3 Collect and sort packaging for recycling in accordance with Waste Management Plan.
 - .4 Separate waste metal for recycling and re-use / re-use and place in designated containers in accordance with Waste Management Plan.
 - .5 Place in designated containers substances that meet the definition of toxic and hazardous waste.
 - .6 Handle and dispose of hazardous materials in accordance with [regional and municipal regulations on CEPA and to the Act.
 - .7 Ensure emptied containers are sealed and stored safely for disposal.
 - .8 Divert unused coatings and paint products to an authorized collection site for hazardous materials accepted by the Departmental Representative and the Consultant.
 - .9 Paints, stains, wood preservatives as well as related products such as thinners and solvents are treated as hazardous materials and, therefore, are subject to regulations regarding disposal. Information regarding the relevant legislation can be obtained from the provincial ministers responsible for the environment and the competent regional administrations.
 - .10 Products that can not be reused must be treated as hazardous waste and disposed of properly.
 - .11 Position materials and hazardous or toxic designated products, including tubes and used containers adhesive and sealant in designated areas or receptacles for receiving hazardous waste.
 - .12 To reduce the contamination of soil or waterways and sanitary sewers and storm, strictly observe the following guidelines.
 - .1 Preserve the water used for cleaning in the case of paints and other products based on water so as to allow the collection by filtration of the various deposited materials.
 - .2 Keep cleaning products, thinners, solvents and excess paint in containers designated for this purpose and dispose of properly.
 - .3 Keep oily rags and solvent used during the painting work for recovering the contaminants contained therein and to remove or to clean adequately rags, as appropriate.
 - .4 Take the necessary steps for the removal of contaminants in accordance with the regulations for hazardous waste.
 - .5 Dry the empty paint cans prior to disposal or recycling (in areas with appropriate facilities).

- .13 Where there is a paint recycling service, collect excess paint, classified by type of products and provide their transport to an installation for collection or recycling.

1.9 CONDITIONS OF IMPLEMENTATION

- .1 Heating, ventilation and lighting
 - .1 Before starting the repainting work, check whether a continued adequate ventilation can be ensured on the one hand and on the other hand, if proper heating help bring the temperatures of the air and substrate more than 10 degrees Celsius 24 hours before the start of work and maintain this temperature for the duration of the implementation and after completion, until the paint is sufficiently hardened.
 - .2 Ventilate enclosed spaces. If required, ensure continuous ventilation during the seven (7) days of completion.
 - .3 Coordinate the use of existing ventilation system with the Representative of the Ministry and, if necessary, make appropriate arrangements for its operation during and after the execution of works.
 - .4 Provide and install temporary heating and ventilation devices necessary if permanent systems can not be used; if building permanent systems fail to meet the minimum requirements, supply and install the additional equipment required to meet them.
 - .5 Provide the required lighting equipment and maintain a level of illuminance of 323 lux at least on the surfaces to be painted.
- .2 ambient temperature, relative humidity and moisture content of the substrate
 - .1 Unless the prior written permission of the responsible for the preparation of specifications body, the competent body providing inspection paintings and manufacturer of coating material used, do not make the painting in conditions listed below:
 - .1 The temperatures of the ambient air and the substrate are less than 10 degrees Celsius.
 - .2 The substrate temperature is greater than 32 degrees Celsius, unless the formula of the paint to be used is designed for application at elevated temperatures.
 - .3 The temperature of the ambient air and substrate are not located within the range recommended by the MPI or the manufacturer of the paint.
 - .4 The relative humidity is greater than 85% or the dew point corresponds to a difference of more than 3 ° C between the temperature of the air and that of the substrate. The coating material should not be applied if the difference between the dew point and the ambient or the temperature of the substrate is greater than 3 degrees Celsius. Relative humidity should be determined by a whirling hygrometer prior to implementation.
 - .5 It's raining, it's snowing, there's fog or drizzle, or precipitation as snow or rain are expected before the complete drying of the paint.
 - .6 Environmental conditions during the drying or curing of the product or the applied coating conform to specified ranges and that, until the new coating used can withstand the current climate.
 - .2 Run the paint coating to ensure compliance with the conditions and the maximum moisture content of the substrate listed below:

- .1 maximum moisture content of 12% for plates and plasters.
- .3 Perform tests to determine the moisture content of the substrates using a properly calibrated electronic moisture meter. In case of concrete floors, assess the moisture content with a simple "control coverage on reference surface."
- .4 Conduct tests on plaster surfaces, concrete and masonry to determine their alkalinity.
- .3 State of surfaces and conditions of implementation
 - .1 Apply the paint product only in areas where the quality of finished surfaces will not be impaired by dust suspended in the air during construction or dust blown by the wind or by the ventilation system.
 - .2 Proceed with the application of paints and coatings on surfaces properly prepared and whose moisture content is within the specified range.
 - .3 Applying paint when the preceding layer has dried or cured sufficiently.
- .4 Additional requirements for the application of paint or coating on the interior surfaces
 - .1 Apply paint products when the temperature on the work site can be maintained within the limits recommended by the manufacturer of the products used.
 - .2 In the occupied buildings, all paint work must be coordinated with the Departmental Representative. The work schedule must be approved by the Representative of the Ministry and it should provide a drying time and sufficient curing before the return of the occupants.

Partie 2 Product

2.1 MATERIALS / MATERIALS

- .1 paint products and coatings listed in the List of Approved Products MPI can be used in the framework of the present work.
- .2 All products forming the chosen paint system must be from the same manufacturer.
- .3 Only registered products have obtained the mention E2 or E3 Environmental Choice can be used in the present work.
- .4 Comply with the latest requirements of the MPI with respect to interior paint coatings, including those for surface preparation and application of primary or print painting.
- .5 The products used, either primary or printing products, paints, coatings, varnishes, stains, lacquers, fillers, diluents, solvents and others, must be on the list of approved products presented in the MPI Architectural Painting Specification Manual.
- .6 Paints, coatings, adhesives, solvents, cleaners, lubricants and other products used must have the following characteristics:
 - .1 Products manufactured without any compounds that contribute to ozone depletion in the upper atmosphere;
 - .2 Products manufactured without promoting compound smog formation in the lower atmosphere;
 - .3 Products not containing methylene chloride (dichloromethane)

- .7 Establishing a form and preparing water-based coatings containing no aromatic solvent, halogenated solvent, formaldehyde, mercury, lead, cadmium, hexavalent chromium or any of their derivatives.
- .8 Flash point: 61.0 degrees Celsius or more in the case of water-based coatings and recycled water-based coatings.
- .9 The preparation and application of water-based coatings and coatings based on water recycling should in any case clear:
 - .1 of materials that can generate a biochemical oxygen demand (BOD) greater than 15 mg / L in the undiluted a production plant effluent that flows into a natural waterway or in a sewage treatment facility providing no secondary treatment;
 - .2 materials bringing the total suspended solids (TSS) to more than 15 mg / L in the case of an undiluted effluent discharged into a natural stream or a waste water treatment facility not involving treatment secondary.
- .10 Paints, stains and varnishes to water as well as coatings based on water recycled must at least meet the requirements of the Environmental Choice Program for the indication E2.

2.2 COLORS

- .1 The Consultant will provide the color list after contract award.
- .2 The colors will be chosen from the full range of colors and shades offered by manufacturers.
- .3 If particular products are available in a limited range of colors, the colors of the products actually used will be selected in this narrow range.
- .4 In paint systems with three (3) layers, the second layer should be of a color slightly paler than the topcoat to facilitate visual identification of each layer.

2.3 MIXING AND START COLOR

- .1 Perform setting color coating materials prior to transport to the site. This color setting must be previously approved by the Consultant.
- .2 A certain amount of diluent may, if necessary, be added to the paint according to the manufacturer's recommendations. Kerosene or similar organic solvent should not be used to dilute the paint with water.
- .3 Thin the paint to be applied to the gun according to the manufacturer's instructions.
- .4 Before and during application, mix thoroughly the paint in the container to break the agglutinated material, to ensure complete dispersion of the deposited pigments, and to preserve the uniformity of the color and gloss of the paint applied.

2.4 DEGREE OF GLOSS (GLOSS)

- .1 For gloss paint means the degree of gloss paint implementation, according to the values presented in the following table:

	60 degree gloss	Chandelier 85 degrees
Gloss 1 - matte finish	more than 5	to 10
Gloss 2 - velvet finish	to 10	10 to 35
Gloss 3 - finished eggshell	10 to 25	10 to 35

Gloss 4 - satin finish	20 to 35	at least 35
Gloss 5 - finished traditional semi-gloss	35 to 70	
Gloss 6 - Traditional gloss finish	70 to 85	
7 gloss - high gloss finish	over 85	

- .2 The degrees of gloss paint coated surfaces must comply with the nomenclature of finished surfaces and indications.

2.5 PAINT INTERIOR SYSTEMS

- .1 Plasters and gypsum wallboard including wallcoverings plasterboard panels "Sheetrock" drywall and textured finishes
- .1 INT 9.2B - high performance architectural latex product, mat or velvet finish is pairing with adjacent ceiling surfaces

Partie 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: Comply with the recommendations or manufacturer's written instructions, including newsletters and fact sheets dealing with products and instructions for handling, storage and implementation of products.

3.2 GENERAL

- .1 Unless otherwise indicated, prepare the interior surfaces and perform the work of painting as required by the MPI Architectural Painting Specifications Manual.
- .2 Apply paint products according to the manufacturer's written instructions.

3.3 INSPECTION

- .1 Inspect existing substrates to ensure that their condition can compromise the adequate preparation of surfaces to be painted or coated. Before starting work, report to the Ministerial Representative, if any, damage, unsatisfactory or unfavorable terms or defects detected.

3.4 PREPARATORY WORK

- .1 Protection
- .1 Protect building surfaces and adjacent structures that should not be coated with paint or plaster against the specks, marks and other damage using blankets or non-dirty cache elements. If the surfaces in question are damaged, clean them and restore them according to the instructions of the Consultant.
- .2 Surface Preparation
- .1 If necessary, cover or move items of furniture and transportable equipment to facilitate painting. Put these elements and materials in place as and when the work progresses.
- .2 Ask signs "FRESH PAINT" in occupied areas during execution of works. Signs must be accepted by the Departmental Representative.

- .3 Clean and prepare the inner surfaces in accordance with the requirements of the MPI Architectural Painting Specification Manual. Refer to this document regarding specific requirements in addition to the instructions below.
 - .1 Remove dust, dirt and other foreign matter by wiping surfaces with clean, dry cloths or by scanning them with a compressed air jet and by vacuuming.
 - .2 Washing the surfaces with a biodegradable detergent admixed with a bleaching agent, if necessary, and clean hot water by means of a stiff bristle brush to clear the surfaces of dirt, oil and other contaminants.
 - .3 After having brushed surfaces, rinse with clean water until no more foreign materials.
 - .4 Allow surfaces to drain completely and dry thoroughly.
 - .5 To prepare the surfaces to receive a water-based paint, it is recommended to use water cleaning products instead of organic solvents.
 - .6 Once dry, many water-based paints can not be removed with water. We must minimize the use of mineral oils or organic solvents to clean the paintings.
- .4 Sand and dust between each layer, as required, to ensure proper adhesion of the next layer and to eliminate defects visible at a distance of 1000 mm or less.

3.5 APPLICATION

- .1 The application method used must be approved by the Consultant. Apply paint roller, brush or brush. Unless otherwise stated, apply the product according to the manufacturer's instructions.
- .2 Brushing, brush and roller
 - .1 Applying a uniform layer of paint with a brush, a brush and / or a suitable type of roller.
 - .2 To penetrate the paint in the cracks, slots and the corners of the elements.
 - .3 Apply paint with a pad or a sheepskin on surfaces and in inaccessible corners with a brush or brush. Use a brush or a brush, pad or sheepskin where it is impossible to paint some areas or some corners with a roller.
 - .4 Remove the scallops and drips with a brush, a brush or a roller, and board on the left and brands. The painted surfaces must be free roller marks and roll excess paint.
 - .5 Remove the scallops, drips and brush marks or brush on finish, and take these surfaces.
- .3 Apply each layer of paint so as to obtain a continuous film of uniform thickness. Resume bare surfaces or coated with a too thin film before applying the next layer.
- .4 Allow surfaces to dry and harden properly after cleaning and between each successive layer, until the minimum time recommended by the manufacturer.
- .5 Sand and dust between each layer to remove defects.

3.6 ELECTRICAL EQUIPMENT AND MECHANICAL

- .1 Unless other indications, apply the paint product of piping, electrical conduits, ventilation ducts, media / suspensions and other apparent domestic electrical and mechanical components so that the color and finish of painted surfaces are aligned to those of the contiguous surfaces.

- .2 Touch up scratches and marks on the coatings applied in the factory using the product provided by the hardware manufacturer.
- .3 Do not paint the nameplates.
- .4 Do not paint the sprinkler heads.

3.7 TOLERANCE IMPLEMENTATION

- .1 Ceiling: no defects visible to an observer on the ground at an angle of 45 degrees relative to the surface being examined, in the intended final lighting.
- .2 The color and the gloss of the topcoat must be uniform over the entire tested surface.

3.8 CONTROL OF QUALITY

- .1 Inspection
- .2 Inform Departmental Representative when a surface coating and are ready to be inspected. Do not apply the next coat before the previous layer has been approved.

3.9 REHABILITATION OF PLAY

- .1 Clean and reinstall all hardware removed for easy painting.
- .2 Remove the protections and warning signs as soon as possible after completion.
- .3 Remove splashes on exposed surfaces that have not been painted. Remove burrs and speckles gradually as the work progresses, using a compatible solvent.
- .4 Protect freshly painted surfaces against drips and dust to the satisfaction of the Departmental Representative and the Consultant and avoid scratching the new coatings.
- .5 Put local used for storage, mixing and handling of paint and the cleaning of tools and equipment used in their original state of cleanliness, to the satisfaction of the Departmental Representative.

END OF SECTION