SPECIFICATIONS

FOR THE

CONSEIL SCOLAIRE CATHOLIQUE MON AVENIR

PLUMBING UPGRADES

AT

ÉCOLE ÉLÉMENTAIRE CATHOLIQUE SAINT-JEAN-BAPTISTE, MISSISSAUGA

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PROJECT: # 2409 **DATE: FEBRUARY 2025**

SPECIFICATION

MECHANICAL AND ELECTRICAL SPECIFICATIONS ON DRAWINGS

LIST OF DRAWINGS

The Drawings forming part of Contract Documents, and bound separately, are listed below.

ARCHITECTURAL

MECHANICAL

ELECTRICAL

END OF TABLE OF CONTENTS

1. General

1.1 CONTRACT DOCUMENTS

1.1.1 Work will be performed under a Stipulated Price Contract: Standard Construction Document CCDC2 – 2020, as amended.

1.2 GENERAL CONDITIONS

1.2.1 The General Conditions of the Contract form an integral part of the Specifications.

1.3 DIVISION 1

1.3.1 The provisions of all Sections of Division 1 shall apply to each Section of this Specification.

1.4 SUPPLEMENTARY DEFINITIONS

1.4.1 Wherever in the Specification the word "Owner" is used in any form, it shall mean "Csc Mon Avenir".

1.4.2 In the Specification, reference such as "Shown on the Drawings", "Specified", "Scheduled", "Called for" and the like shall be deemed to include work required by any of the Contract Documents.

1.4.3 In the Specifications the expression Sub-Contractor is synonymous with Trade Contractor(s) if the context permits.

1.5 STANDARDS

1.5.1 Conform to latest date of issue of referenced standards in effect on date of submission of bids, except where a specific date or issue is specifically noted.

1.6 SAFETY MEASURES

1.6.1 Comply with the safety regulations of the Occupational Health and Safety Act and authorities having jurisdiction for the safety of the Work.

1.6.2 Notify the Consultant and Owner immediately should an emergency arise on the site, including personal injuries and accidents. Provide complete details on extent of emergency, cause and the action being taken. This notification shall be by telephone or email immediately after the occurrence.

1.6.3 Review "Reassessment of Hazardous Building Materials Survey Reports" in custodian's office for hazardous materials located in various areas of the building prior to commencement of construction work.

1.7 FIRE SAFETY DURING CONSTRUCTION

1.7.1 Provide fire prevention and protection measures to existing building as required by all authorities having jurisdiction.

1.7.2 Maintain exits, including stairways and exterior doors to the outside. Provide acceptable alternative exits where an existing exit is blocked off due to construction activities.

1.8 HOURS OF WORK / ACCESS

1.8.1 Coordinate construction activities and use of premises with Owner's representatives.

1.8.2 Portions of the building will remain operational during Monday to Friday 7:30 am to 4:30 pm inclusive. Disruptive work, to be performed after hours of operation, includes noise, disruption of building services, and work in occupied spaces and corridors. Conform to the requirements of the school custodian.

1.8.3 Existing premises will be available for start of the Work on June 30, 2025.

1.9 CONSTRUCTION SCHEDULING

1.9.1 Substantial Completion of the project to be August 15, 2025 and total completion August 22, 2025.

2. Products

2.1 PRODUCT QUALITY

2.1.1 Defective Products, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective Products at own expense and be responsible for delays and expenses caused by rejection.

2.1.2 Should any dispute arise as to quality or fitness of Products, decision rests strictly with Consultant based upon requirements of Contract Documents.

2.1.3 Products, materials, equipment and articles (referred to as Products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended, unless otherwise noted. If requested, furnish evidence as to type, source and quality of Products provided.

2.2 LANGUAGE OF ALL VISIBLE LABELS AND INSTRUCTIONS

2.2.1 All Contractors, Subcontractors or Suppliers shall provide all labels, instruction manuals and signage in the French language. Where required by law and/or Owner, provide the above in both English and French. Verify language of instruction on shop drawings.

2.2.2 Where possible provide all maintenance manuals in both French and English.

2.3 PRODUCT SUBSTITUTION

2.3.1 Whenever Products are specified exclusively by trade name, manufacturer's name or by catalogue reference, use only those items, unless written approval for substitution is obtained from Consultant.

2.3.2 There is no obligation on the part of the Consultant or Owner to accept alternate proposed substitutions. Acceptance of proposed substitutions by Owner or Consultant does not relieve the Contractor's responsibility under the Contract.

2.4 PRODUCT STORAGE, HANDLING AND PROTECTION

2.4.1 Handle and store Products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.

2.4.2 Store packaged or bundled Products in original and undamaged condition with manufacturer's seals and labels intact.

2.4.3 Store products within designated construction area only.

2.5 PRODUCT MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS

2.5.1 Unless otherwise indicated in specifications, install or erect Products in accordance with manufacturer's instructions and recommendations. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.

2.5.2 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish course of action.

2.5.3 Improper installation or erection of Products, due to failure in complying with these requirements, authorizes Consultant to require removal and reinstallation at no increase in Contract Price.

2.6 WORKMANSHIP

2.6.1 Workmanship shall be best quality, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.

2.6.2 Do not employ any unfit person or anyone unskilled in their required duties.

2.6.3 Decisions as to quality or fitness of workmanship in cases of dispute rest solely with Consultant, whose decision is final.

2.7 CONCEALMENT

2.7.1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.

2.7.2 Before installation, inform Consultant if there is a contradictory situation. Install as directed by Consultant.

3. Execution

3.1 EXAMINATION OF SURFACES DURING CONSTRUCTION

3.1.1 Before executing work against existing surfaces, examine such surfaces. Do not accept defective surfaces, or do any work to or on them, until the defects have been addressed or remedied.

3.1.2 Commencement of work shall indicate acceptance of surfaces and responsibility concerning the conditions of same.

3.2 SATISFACTION / APPROVAL

3.2.1 The expression "to the satisfaction or approval of the Consultant" shall be implied throughout the Specification in regard to all materials and workmanship.

3.2.2 "Submit for review" means that the item in question is to be submitted to the Consultant for review and that a written acceptance of it and authorization for its use in the work shall be obtained before it is incorporated in the work.

3.2.3 An "approved method" means that which has the manufacturer's recommendation or which is generally accepted as good trade practice. The Consultant's approval is also required.

3.3 FASTENINGS

3.3.1 Use exposed metal fasteners and accessories of a permanent type that are of same texture, colour and finish as base metal on which they occur.

3.3.2 Use metal fastenings of the same materials as the metal component they are anchoring or of a metal which will not set up an electrolytic action which would cause damage to the fastening or metal component.

3.3.3 Use fastenings of a type and size and install them in a manner to provide positive anchorage of the unit to be anchored in position. Install anchors at required spacing to provide required load bearing or shear capacity.

3.3.4 Keep exposed fastenings to a minimum, evenly spaced and neatly laid out. Show on Shop Drawings.

3.3.5 Fastenings which cause spalling or cracking of material to which anchorage is being made are not permitted.

3.3.6 Limitations for Use of Powder Actuated Tools:

.1 The use of powder activated fasteners is prohibited without the written authorization of the Consultant.

.2 Where such authority is given, it will be for low velocity type powder activated fasteners and for horizontal application only.

.3 The manufacturer of the equipment selected, Ramset, Omark or equal, shall send a representative to the site to demonstrate the equipment prior to its use, and this representative shall make periodic inspections to ensure compliance with instructions issued by him and correct application of material. In all cases a shield shall be used where fasteners are to be applied to concrete. The use of fasteners in precast concrete is to be avoided if possible as there is an increased tendency to shatter surfaces.

.4 Fasteners shall be not nearer than 63 mm to the edge of any cast-in-place formed concrete member.

.5 Under no circumstances shall such fasteners be used on concrete members less than 75 mm in thickness.

.6 Such fasteners shall not be in areas where corrosion can take place, for instance due to high humidity or condensation.

.7 Generally use support anchorage of cast-in-place type set into concrete forms prior to pouring concrete, or self-drilling type such as "Red Head" T-32 tie wire type. When drilling upwards, use jig to hold drill steady and plumb.

.8 Provide pull-out tests on anchors, or otherwise test to ensure anchorage is sufficient for the particular application including a minimum safety factor of seven. Provide evidence of such test if requested.

.9 Submit samples of proposed anchoring or hanging devices with technical data and

test data.

3.4 CUTTING AND PATCHING

3.4.1 Perform cutting, fitting, and patching to complete the Work.

3.4.2 Remove and replace defective and non-conforming work.

3.4.3 Properly prepare surfaces to receive patching and finishing.

3.4.4 Restore work with new products to match existing.

3.4.5 Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

3.4.6 At penetration of fire-rated wall, ceiling, or floor construction, completely seal voids with fire-rated material, full thickness of construction element.

3.4.7 Refinish surfaces to match adjacent finishes; for continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.

3.4.8 Do not cut, damage or otherwise compromise structural elements of the base building without written approval from the Consultant.

3.5 MAKING GOOD

3.5.1 Make good materials and finishes which are damaged or disturbed during the process of alterations and reconstruction as part of the Work.

3.5.2 Where existing work is to be made good, match new work exactly with the old work in material, form, construction and finish unless otherwise noted or specified.

3.6 ITEMS SUPPLIED BY THE OWNER FOR INSTALLATION AS PART OF THE WORK

3.6.1 Install items indicated to be supplied by the Owner and installed by the Contractor, in accordance with the respective manufacturer's requirements and recommendations.

3.6.2 Provide the installations complete with security & electrical hook up in accordance with Owner requirements.

3.7 MECHANICAL AND ELECTRICAL WORK

3.7.1 Install and arrange ducts, piping, tubing, equipment and fixtures in such a way as to conserve headroom and space as much as possible, to provide minimum interference and to be neat, orderly and tidy. Unless otherwise noted, run pipes, ducts, tubing and conduit, vertical, horizontal and square with building grid. Conceal pipes, ducts, tubing and conduit above ceiling, rooms and unfinished spaces, unless indicated or specified otherwise. Dimensions and elevations of ceiling heights on Drawings must be maintained.

3.7.2 The general intent is that each Sub-Contractor shall include for all cutting and patching unless requirements are given with timely notice for areas being erected for Trades to incorporate.

3.7.3 Electrical contractor shall verify and confirm that sufficient capacity exists in existing electrical panels to accommodate new electrical outlets.

3.7.4 Provide certification of fire alarm system modifications as may be required by authorities having jurisdiction.

3.8 NOTICES, PERMITS AND FEES

3.8.1 **Owner will make application and pay for the Building Permit.** Each Sub-Contractor to pay for subsequent Permits as may be required.

3.8.2 Give all required notices and comply with all laws, ordinances, rules, regulations, codes and orders of authorities having jurisdiction.

3.9 FINAL CLEANING

3.9.1 When the Work is Substantially Performed, remove surplus products, tools construction machinery and equipment not required for performance of remaining Work.

3.9.2 Clean hardware after installation in accordance with supplier's instructions.

3.9.3 Leave work broom clean before inspection process commences.

3.9.4 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, mechanical and electrical fixtures.

3.9.5 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls ceilings.

3.9.6 Vacuum clean and dust building interiors disturbed or used as access during the construction process.

3.9.7 Prepare floor finishes, as recommended by manufacturer. Contractor to confirm products used by the school board before cleaning and final waxing operations begin.

3.10 SYSTEMS DEMONSTRATION

3.10.1 Testing and commissioning material to be submitted to the Consultant for review prior to start of commissioning of equipment and systems.

3.10.2 Prior to final inspection, demonstrate operation of each system to Owner.

3.10.3 Testing and commissioning sheets must be submitted to the Engineers for approval prior to commissioning of equipment and systems.

3.10.4 Instruct personnel in operation, adjustment, and maintenance of equipment and systems, using provided operation and maintenance data as basis for instruction.

END OF SECTION

1.1 GENERAL

1.1.1 Comply with GC 4.1 CASH ALLOWANCES.

1.1.2 Cash allowances are designated for additional work and services deemed to be necessary by Owner, from time to time, throughout the execution of the Work. Where a cash allowance refers to an item or category of work already included in Contract Documents, it shall be assumed to cover work or services in addition to that indicated, unless specifically indicated otherwise.

1.1.3 Contractor may be required from time to time to assist in tendering of certain items of work covered by allowance, as directed by the Consultant.

1.1.4 Unexpended portion of allowance to be credited to the Owner at completion of the Work.

1.2 AUTHORITIES

1.2.1 Expenditures from allowances included in the Contract must be authorized in writing by the Consultant.

1.2.2 Work covered by allowances shall be performed for such amounts and by such persons as directed by the Consultant.

1.3 CASH ALLOWANCE

1.3.1 Cash Allowance shall include applicable taxes (excluding H.S.T.).

Total - $8,000.00 (Five Thousand Dollars)

- $5,000.00 for Miscellaneous unknown Site Conditions,
- $3,000.00 for HWT roof vent alterations.

END OF SECTION 01210

1. Administration and Submittals

1.1 DIVISION OF WORK

1.1.1 Work specified in the Specifications is divided into Sections for reference purposes only. Division of work between Subcontractors is the General Contractor's responsibility. The Owner does not assume responsibility to establish subcontract limits between Sections or Divisions of the Work.

1.1.2 The term "NIC" means "Not In This Contract" i.e. not a Part of The Work to be Performed or Provided by The Contractor under the Contract. "NIC" work is specified and/or indicated on the Drawings as an aid to the Contractor in scheduling the amount of time and materials necessary for the completion of the Contract.

1.2 EXTRAS AND EXAMINATION OF EXISTING CONDITIONS

1.2.1 The General Contractor will be deemed to have examined the site, become familiar with conditions under which work will be done, and obtained all information which may be necessary for proper execution of Contract. Extra payments will not be authorized for work that could have been determined by a careful examination of site and existing conditions, as determined by the Consultant.

1.3 PROJECT PROGRESS

1.3.1 The General Contractor will schedule and administer project progress.

1.3.2 Present and review the current project schedule with the Consultant.

1.4 RECORD DRAWINGS

1.4.1 After award of Contract, Consultant will provide a set of prints for purpose of maintaining record drawings. Accurately and neatly record deviations from Contract Documents caused by site conditions and changes ordered by Consultant.

1.4.2 Record locations of concealed components of mechanical and electrical services.

1.4.3 Identify drawings as "Project Record Copy". Maintain in new condition and make available for review on site by Consultant.

1.4.4 On completion of Work and prior to final review, submit record documents to Consultant.

1.5 SUB-CONTRACTOR'S QUALITY CONTROL

1.5.1 Each Sub-Contractor shall be responsible for and pay for the following:

.1 Inspection and testing required by laws, ordinances, rules, regulations or orders of public authorities.

.2 Inspection and testing performed exclusively for Sub-Contractor's convenience.

.3 Testing, adjustment and balancing of conveying systems, mechanical and electrical equipment and systems.

1.6 INSPECTION/TAKEOVER PROCEDURES

1.6.1 Prior to application for certificate of Substantial Performance of the Work, carefully inspect the Work and ensure it is complete, that major and minor construction deficiencies are complete, defects are corrected and building is clean and in condition for occupancy. Notify Consultant in writing, of satisfactory completion of the Work and request a review.

1.6.2 During Consultant review, a list of deficiencies and defects will be tabulated. Correct same. When Consultant considers deficiencies and defects have been corrected and it appears requirements of Contract have been performed, make application for certificate of Substantial Performance.

1.6.3 Conform to OAA/OGCA Document No.100 for takeover procedures.

1.7 WARRANTY PERIOD

1.7.1 The Warranty Period on this Project will expire twelve months from the date of the Certificate of Substantial Performance of the Work, except for extended warranties as called for throughout the Specifications.

1.8 PROJECT RECORD MANUAL

1.8.1 Submit two electronic (2) copies of Project Record Manual consisting of maintenance data and Two (2) set of record (as-built) drawings white prints and one (1) set of Drawings in CADD format. Collect reviewed submittals and assemble documents executed by Subcontractors, suppliers, and manufacturers and submit material prior to final application for payment. Provide warranties fully executed. For multiple project locations provide Project Record Manual for each location.

1.9 MAINTENANCE MATERIALS

1.9.1 Where supply of maintenance materials is specified, deliver to Owner Designer as follows:

.1 Materials in unbroken cartons, or if not supplied in cartons, they shall be strongly packaged.

.2 Clearly mark as to content.

.3 If applicable give colour, room number of area where material used.

2. Submittals

2.1 GENERAL

2.1.1 Submit to Consultant submittals listed for review. Submit with reasonable promptness and in an orderly sequence so as to not cause delay in the Work.

2.1.2 Work affected by submittal shall not proceed until review is complete.

2.1.3 Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of the Work and Contract Documents.

2.1.4 Verify field measurements and affected adjacent Work are coordinated.

2.2 SUBMITTALS REQUIRED

2.2.1 Supply the following before the Work commences on site:

.1 Ministry of Labour Notice of Project

.2 Certified copies of insurance certificates and policies as required by the Contract.

.3 A Workplace Safety & Insurance Board certificate of good standing.

.4 A Performance Bond and a Labour and Material Payment Bond, issued by a Surety acceptable to the Owner, if required.

.5 A list of all controlled hazardous materials or products that are deemed to be or contain designated substances in accordance with the Workplace Hazardous Materials Information System (WHMIS) as defined under the Ontario Occupational Health and Safety Act and provide appropriate Material & Safety Data Sheets for these substances, for use in the performance of the required work.

.6 Submit construction schedule for review and approval within one (1) week of award of contract.

.7 For all personnel working on the school site, Criminal Police Checks must be obtained with the local police department of the school location.

2.3 SHOP DRAWINGS AND PRODUCT DATA

2.3.1 Submit prints of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request, electronic copies acceptable.

2.3.2 Indicate materials, explanatory notes, and other information necessary for completion of Work.

2.3.3 Adjustments made on shop drawings by Consultant are not intended to change Contract Price.

2.3.4 Make adjustments in shop drawings as consultant may require.

2.3.5 Submit copies, unless otherwise noted, of product data sheets or brochures for requirements requested in specification Sections and as Consultant may reasonably request where shop drawings will not be prepared due to standardized manufacture of product.

2.4 SAMPLES

2.4.1 Submit samples for review as requested in respective specification Sections.

2.4.2 Submit samples for review in finish as specified and where colour is criteria, submit full range of colours.

2.4.3 Deliver samples prepaid to Consultant's business address.

2.5 GENERAL CONTRACTOR'S RESPONSIBILITY

2.5.1 Check, and certify as correct Shop Drawings, Product Data and Samples prior to submission.

2.5.2 Verify:

.1 Field measurements.

.2 Field construction criteria.

.3 Catalogue numbers and similar data.

2.5.3 Co-ordinate each submittal with requirements of Work and Contract Documents.

2.5.4 Notify Consultant, in writing at time of submission, of any deviations in submittal from requirements of Contract Documents.

2.5.5 Stamp, initial or sign each Drawing, certifying approval of submission, verification of field dimensions and measurements and compliance with Contract Documents, prior to submission to the Consultant(s).

2.5.6 After Consultant's review, distribute copies, as follows:

.1 Job Site

.2 Record documents file.

.3 Subcontractors.

.5 Supplier.

.6 Fabricator.

.6 Authorities having jurisdiction, where required by Codes and/or By-Laws,

.7 Owner and Data Book where applicable.

2.5.7 Distribute samples as directed by the Consultant.

2.5.8 Ensure that all samples are approved by authorities having jurisdiction, supplier for correct application in Project, and other parties such as Owner in time to permit approval prior to ordering of quantity delivery to Site.

2.5.9 The General Contractor shall advise all Trades, Subcontractors and suppliers of the limits of the Consultant's responsibility with respect to Shop Drawings and other submittals as detailed under paragraph 2.6 below.

2.6 CONSULTANT'S RESPONSIBILITY

2.6.1 Within reasonable promptness of the receipt of samples and shop drawings Architectural, the Consultant shall return to the General Contractor indicating that the items have been:

.1 Reviewed (no resubmittal required).

.2 Reviewed as indicated (resubmittal required).

.3 Not as per Specification (resubmittal required).

2.6.2 Review by the Consultant is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the Consultant approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor, and such review shall not relieve the Contractor of his responsibility for meeting all requirements of the Contract Documents. The General Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the processes or techniques of construction and installation and for co-ordination of the work of all subtrades.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Contractor to access the building through the entrances agreed with School Custodian.

1.1.2 Provide construction facilities and temporary controls in order to execute work expeditiously.

1.1.3 Provide protection to prevent damage to other work and existing construction and finishes.

1.1.4 Confine the Work and operations of employees to limits indicated by Contract Documents. Do not unreasonably encumber premises with Products.

1.1.5 If required, provide adequate protection against dust, water and other damages to Owner's electronic and computer equipment, fittings, furniture and remove protection after performing work.

1.1.6 Protect work in the existing building, such as floors, finishes, trim, etc., to reduce damaged work to a minimum.

1.1.7 On completion, or at earlier date if facility no longer required or if alternative accommodation provided within the building, each Sub-Contractor shall clear away his temporary facilities and make good all work disturbed.

1.1.8 Portable washrooms to be provided by the GC. School washrooms cannot be used by construction crew.

1.2 INSTALLATION / REMOVAL

1.2.1 Provide construction facilities and temporary controls in order to execute work expeditiously. Remove from site all such work after use.

1.3 DELIVERY, UNLOADING, AND HOISTING

1.3.1 Co-ordinate with School Custodian the use of temporary controls and facilities not provided under this Contract, including but not necessarily limited to material delivery, unloading and hoisting. Make prior arrangements and schedule use at times acceptable to the building management. Be responsible for payment for use of such facilities. Arrange for delivery and unloading of materials at areas designated. Do not interfere with vehicular traffic on the streets and pedestrian traffic on the sidewalks.

1.4 TRAFFIC CONTROL & SECURITY

1.4.1 The General Contractor shall provide necessary traffic control and security personnel as required for the safe performance of the Contract and security of the premises.

1.4.2 General Contractor and each Sub-Contractor shall conform to the requirements of the local authority.

1.4.3 General Contractor and each Sub-Contractor shall conform to requirements of insurance companies providing coverage for this Contract.

1.5 HOARDING AND BARRICADES

1.5.1 The General Contractor shall:

.1 Erect hoarding and barricades to protect public, workers, public and private property from injury or damage, including access to the corridors and washroom areas under renovation.

1.6 TEMPORARY SERVICES

1.6.1 Light and Power: Electric power for all construction purposes will be supplied by the Owner. GC to make connections available to any part of the Work as required.

1.6.2 Install lighting for emergency evacuation, safety and security for the Project areas as required by jurisdictional authorities. Light to be evenly distributed, and at intensities to ensure that proper installations and applications are achieved.

1.6.3 Ventilate the building during construction and completion of finish Work and to maintain temperature for working, surface and curing conditions required by all specified materials.

1.6.4 Maintain fire protection as required by jurisdictional authorities.

1.6.5 The Owner will provide and pay for a continuous supply of water and power for construction use.

1.7 CONTRACTOR CONSTRUCTION EQUIPMENT

1.7.1 Select, operate and maintain construction equipment and cranes as may be required.

1.7.2 Erect scaffolding, independent of walls. Use scaffolding so as to interfere as little as possible with the work. When not in use, move scaffolding as necessary to permit other work. Construct and maintain scaffolding in rigid, secure and safe manner. Remove scaffolding promptly when no longer required. Scaffolding shall permit convenient access to all levels for all workmen and inspection staff.

1.8 CONTRACTOR GENERAL PROTECTION

1.8.1 Without limiting the General Contractor's responsibility to provide all necessary protection, the Sub-Contractors shall:

.1 Provide as required to permit Work to continue without interruption, tarpaulins, polyethylene, plastic or wood coverings to enclose portions of the work areas to contain dust and noise.

1.8.2 Any Work damaged by failure to provide protection as required or damaged as a result of lack of adequate temporary heat shall be removed and replaced with new, at no additional cost to the Owner.

1.8.3 Each Trade shall avoid damaging the Work of other Trades. Conduct the Work and provide protective covering as necessary to meet this requirement. Make good at own expense any damage resulting from failure to meet this requirement. Protective measures shall be to Consultant's approval.

1.9 SITE STORAGE AND LOADING

1.9.1 Confine the Work; storage of materials and operations of employees to limits and agreed with Owner. Do not unreasonably encumber premises with Products.

1.9.2 Do not load or permit to be loaded any part of the Work with a weight or force that will endanger the Work.

1.10 TEMPORARY LIGHTING

1.10.1 Provide temporary lighting required during construction period, including attendance and maintenance.

1.11 TEMPORARY VENTILATION

1.11.1 Ventilate areas and keep building free of dust or construction off-gases.

1.12 TEMPORARY TELEPHONE

1.12.1 Provide and pay for temporary telephones necessary for own use.

1.13 EQUIPMENT/TOOL/MATERIALS STORAGE

1.13.1 Provide and maintain, in clean and orderly condition, lockable storage areas for tools, equipment and materials.

1.13.2 Locate materials to be stored on site in manner to cause least interference with work activities.

1.14 PROJECT CLEANLINESS

1.14.1 Remove waste material and debris from site at end of each working day. Do not burn waste materials on site.

1.14.2 Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

1.14.3 Maintain the Work in tidy condition, free from accumulation of waste products and debris. Remove waste material and debris from site at end of each working day. Do not burn waste materials on site.

1.14.4 Provide own disposal bin for waste material and debris; do not use the Owner's disposal bin or facilities.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 SUBMITTALS

1.2.1 Demolition Sequence and Methods drawings: Where required by authorities having jurisdiction, submit for approval drawings, diagrams or details showing sequence of disassembly work and supporting structures and underpinning. Submissions to bear stamp of qualified professional engineer registered in Province of the Work.

1.3 EXISTING FACILITIES

1.3.1 Do not interrupt existing services and facilities, except for authorized and scheduled interruption of services as approved by the Owner.

1.4 ITEMS OF WORK

1.4.1 Remedial work shall include but is not necessarily limited to the following items of work:

1. ARCHITECTURAL ITEMS

   a) Removal of existing urinals and concrete slab on grade as required in Boys Washroom
   b) Removal of existing masonry partitions, related millwork, washroom fixtures and slab on grade at Washroom 148B
   c) Removal of existing doors scheduled to be removed.
   d) Removal of existing floor finishes as noted on drawings.

2. ELECTRICAL ITEMS

   a) Identify and maintain fully operational all services in the demolition areas. These systems shall include but not necessarily be limited to the following:

      i) Hydro services
      ii) Fire alarm and life safety systems
      iii) Telephone wiring and PA System

   b) The services referred to in a) above shall be marked with spray paint and left in place, unless otherwise noted on drawings. Allow for making safe of all electrical and mechanical services and cut back to new required locations for connection if required.

   c) Remove all conduits, fittings, accessories, conductors, fixtures, devices, etc., that are no longer required and remove from site.

   d) All unused outlet boxes in finished surfaces are to be closed with blank cover plates to Owner's approval.

   e) Relocate existing services as noted on Electrical Drawings.

3. MECHANICAL ITEMS

a) Replacement of washroom fixtures and drinking fountains including relocation of buried and concealed services as required for new layouts and plumbing fixtures.

2. Products

2.1 MATERIAL AND DEBRIS

2.1.1 Demolition materials and debris are the property of the Contractor except as otherwise indicated.

2.1.2 The area of work may contain environmentally hazardous building materials and contractors are to review the current asbestos survey for the Place of the Work, and determine whether the Work will or will not involve the removal of asbestos containing material (ACM).

2.1.3 Salvage for reinstallation materials noted on drawings.

3. Execution

3.1 PROTECTION

3.1.1 Provide and maintain temporary barricades and guard rails to protect the general public, staff, and workmen.

3.2 DEMOLITION

3.2.1 Demolish parts of the Work as noted on drawings, existing materials, finishes, and construction as indicated, implied, and inferable as part of the Work and as necessary to accommodate the Work. Demolish in accordance with requirements of authorities having jurisdiction.

3.2.2 Minimize and control dust and dirt rising.

3.2.3 Protect building systems, services and equipment.

3.2.4 Provide temporary dust screens and other protection as required.

3.3 REMEDIAL WORK

3.3.1 Make good all surfaces, ready for proper execution of new work.

3.3.2 Where existing floors require levelling and patching execute work required with cementitious material compatible with new and existing work.

3.4 DISPOSAL

3.4.1 Remove all combustible materials, plastics, metal, glass, wood and other organic material from site.

3.4.2 Remove demolition materials and debris from the site and dispose of legally.

3.4.3 Do not place nor store material in streets or passageways.

3.4.4 Location of disposal bins to be coordinated with Building Custodian.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 RELATED WORK

1.2.1	Sealant	Section 07900

1.3 SCOPE OF WORK

1.3.1 All work of this section is to be carried out in strict accordance with the requirements of all relevant sections of the latest edition of the Ontario Building Code and all relevant standards referenced therein.

1.3.2 Supply new wood blocking, supports, etc. as required or as designated by the Consultant.

2. Products

2.1 WOOD MATERIAL

2.1.1 **Softwood Lumber**: to CSA 0141- 1970 and National Lumber Grades Authority, for exterior work, Cedar, to AWMAC custom grade

2.1.2 **Lumber identification**: By grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

2.1.3 **Furring, blocking, nailing strips, grounds, rough bucks, cants, curbs, fascia backing and sleepers**: S2S, Standard or better grade.

2.1.4 **Nails, Spikes and Staples**: to CSA B 111 - 1974.

2.1.5 **Plywood Backing**: for future anchorage of Change Table – 1 inch, 4ft x 8ft, T&G, G1S standard spruce plywood. To CSA 0151.

2.1.6 **Proprietary Fasteners**: Toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, recommended for purpose by manufacturer

3. Execution

3.1 CONSTRUCTION - GENERAL

3.1.1 Comply with the requirements of the Ontario Building Code.

3.1.2 Install new plywood in walls for anchorage of fixtures and fittings. Cut to fit. Secure with fasteners to appropriate support members.

3.1.3 Align and plumb faces of fascia to tolerance of 1:600.

3.1.4 Frame, anchor, fasten and brace members to provide necessary strength and rigidity

3.1.5 Countersink bolts where necessary to provide clearance for work.

3.2 INTERIOR NAILING STRIPS, GROUNDS AND ROUGH BUCKS

3.2.1 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.

3.3 INTERIOR FURRING, BLOCKING, AND NAILING STRIPS

3.3.1 Provide furring, blocking, and nailing strips as required to space-out and support equipment, cabinets, wall and ceiling finishes, frames, facings and other work as required.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 REFERENCES

1.2.1 Standards:
.1 Architectural Woodworking Manufacturer's Association of Canada (AWMAC) Quality Standards for Architectural Woodwork

1.3 QUALITY ASSURANCE

1.3.1 **Manufacturer and Installer qualifications**: Membership in good standing with the Architectural Woodworking Manufacturer's Association of Canada (AWMAC).

1.3.2 **Qualifications, Certificates, Bonds**: Membership in good standing with the Architectural Woodworking Manufacturer's Association of Canada (AWMAC) and provision of a two year AWMAC Certificate, or a Maintenance Bond to the full value of this Section certifying that the work has been manufacturered and installed in accordance with the standards and requirements of this Section. The Certificate or Maintenance Bond submitted shall cover AWMAC inspection costs and replacement and /or refinishing of the work to make good any defects due to faulty workmanship and defective materials which appear within two years after Substantial Performance of the Work.

1.4 SUBMITTALS

1.4.1 **Samples**: Submit the following samples in accordance with **Section 01300**.
.1 Each plastic laminate one sample tag.

1.4.2 **Shop drawings**: Submit the shop drawings in accordance with **Section 01300**. Indicate the following:
.1 system arrangement, cut-outs for mechanical and electrical services and related items.
.2 method of assembly including jointing, fastening, strapping and large scale details of construction
.3 finishes

2. Products

2.1 MATERIALS

2.1.1 **Wood members**: CSA 0141, S4S, clean, seasoned, straight, square and true on all four sides. Grade-mark wood materials to NLGA Standard Grading Rules for Canadian Lumber. Kiln dry wood materials to a moisture content of 4% to 8%.

2.1.2 **Plywood**: Douglas fir plywood to CSA 0121, standard construction or Canadian softwood plywood to CSA 0151, standard construction.

2.1.3 **Plastic laminate**: CAN3-A172, thickness tolerances in accordance with Table 1 of the Standard. Unless otherwise specified, use the following:
.1 Postformed work: Grade PF, Type S, minimum 0.048" thick.
.2 Horizontal and vertical flat work: Grade GP, Type S, minimum 0.048" thick.

.3 Backing sheet: Grade BK, not less than 0.02" thick sanded one face and manufactured by the same manufacturer as the facing sheet.

2.1.4 **Particleboard**: CAN3-0188.1, Grade R, high density, mat formed wood particleboard.

2.1.5 **Wood veneer**: Maple, flat cut, narrow heart, uniform, clean, without open defects, patches or plastic repair and unnatural characteristics, minimum 1/32" thick after sanding.

2.1.6 **Hardwood plywood**: CSA 0115, Type II.

2.1.7 **Hardboard**: CAN/CGSB-11.3, impregnated, pressed wood with a tempering compound and polymerized by baking.

2.1.8 **Sealer**: Water-repellant, clear, colourless, penetrating wood preservative, LePage's Wood Preservative by LePage's Ltd., Super Solignum by Solignum Inc., Pentox by Osmose-Pentox Inc.

2.2 CABINET HARDWARE

2.2.1 Supply hardware with fasteners and other items and parts required for complete installation and functioning.

2.2.2 **Shelf standard and support clip:** 255NP, flush mounted, by Knape & Vogt Canada Inc. , 256NP, 1 clip for each 12" length or fraction thereof, by Knape & Vogt Canada Inc.

2.2.3 **Adjustable brackets:** No. 80 Standards and No.180 brackets in white finish, by Knape & Vogt Canada Inc.

2.2.4 **Cupboard hinge:** 125 grade opening, nickel plated steel mounting plate and self-closing hinge with zinc die cast Vevor soft close by Julius Blum Canada Ltd, distributed by Richelieu.

2.2.5 **Drawer Slides:** Vevor 20 inch, 3 fold Full Extension, Ball Bearing Lock-in and Lock-out side mounted slides by Julius Blum Canada Ltd.

2.2.6 **D pull (Pull-2):** Workroom 140A, manufactured by Richelieu, Model 33205, Finish: 170 Stainless steel,

2.2.7 **Inactive Leaf Elbow Catch:** Ives, Elbow Catch No.2

2.3 CASEWORK FABRICATION

2.3.1 Provide casework in accordance with the AWMAC Standard as follows:
.1 Casework type: flush overlay
.2 Interpret exposed, semi-exposed and concealed components and surfaces, as defined in the AWMAC Quality Standards
.3 Exposed parts except counter tops
.4 Face and edge band finish: P.Lam AWMAC edgeband detail 2
.5 Minimum thickness for doors and drawer fronts: 3/4"
.6 Provide edge banding to apron and valance edges
.7 Counter tops: AWMAC Detail 1,3
.8 Core: Particle Board except shelves to be plywood
.9 Edge detail: AWMAC 1 and 5

2.3.2 Provide finish carpentry to Millwork Standards of the Architectural Woodwork Manufacturers Association of Canada, Premium Grade, except where specified otherwise.

2.3.3 Provide necessary cutouts, to templates, for services, fixtures, and trim as necessary.

2.4 PLASTIC LAMINATE WORK

2.4.1 Provide plastic laminate to core material in accordance with laminate and adhesive manufacturer's instructions. Use continuous lengths up to 10'-0". Design joints 24" from sink cutouts.

2.4.2 Provide laminate backing sheets to reverse side of core of plastic laminate work.

2.4.3 Provide flush hairline joints in counter tops.

2.4.4 To CAN-3-A-172-M79, Type HD, 1.6mm thickness, velour or satin finish. Use scratch resistant surface, FIN-SA(41) by Formica, 90 finish by Wilsonart, or equal, for counter tops. Colours shall be selected by the Consultant at a later date from Standard colour range.

2.4.5 Melamine Compound and Panels: as manufactured by Formica, Arborite, Nevamar or Uniboard to thickness shown.

2.5 MILLWORK FINISHES

2.5.1 **Melamine #1 (ML-1)**: Colour Hardrock Maple, Contractor to provide sample to Consultant for approval.

2.5.2 **Maple Veneer #1 (MV):** Colour: Clear Finish, Contractor to provide sample to Consultant for approval.

2.5.3 **Wood (WD):** Maple, clear finish, to match ML-1

2.5.4 **Edge Banding:** 3mm thickness, colour to match hardrock Maple

3. Execution

3.1 INSTALLATION

3.1.1 Deliver and install the work of this Section in accordance with the requirements and recommendations of Part 6 of the AWMAC standard.

3.1.2 Scribe and cut casework as necessary to fit abutting walls and surfaces, to fit properly into recesses, and to accommodate piping, columns, fixtures, inserts, grilles, appliances, outlet boxes, or other projecting, intersecting or penetrating objects. Seal exposed counter cores.

3.1.3 Provide the work of this Section plumb, true, square, neatly scribed to adjoining surfaces and anchored securely.

3.1.4 Provide allowances around perimeter where fixed objects pass through or project into laminated plastic work to permit normal movement without restriction.

3.1.5 Provide casework hardware as indicated and/or implied, and verify smooth and free movement of operating assemblies.

3.2 FASTENINGS

3.2.1 Fastenings to solid masonry or concrete surfaces shall be with expansion shields and lag

screws, unless otherwise specified, and to steel with bolts and nuts. Wood or inorganic fibre plugs shall not be permitted. Powder activated fasteners and staples shall not be used unless permitted b the Project Manager.

3.3 FINISHING HARDWARE

3.3.1 Mortise and neatly fit finishing hardware. Cut mortises straight and sharp without ragged edges and size accurately to accommodate the hardware. Where mortising and application have not been done in a first class workmanlike manner such work shall be replaced.

3.3.2 Install hardware in accordance with the manufacturer's recommendations.

3.3.3 Examine and adjust as required all doors and other moveable parts prior to completion of the building.

3.3.4 Hang doors 1 ½ pairs of butts, unless otherwise shown in the hardware list to be provided under Section 08700. Neatly and accurately fit all finishing hardware.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 RELATED SECTIONS

1.2.1	Miscellaneous Sealants	Section 07900
1.2.2	Gypsum Board System	Section 09250
1.2.3	Mechanical: Pipe and Duct	Division 15
1.2.4	Electrical: Lighting, Power, Alarm and Communication	Division 16

1.3 SUBMITTALS

1.3.1 **Shop drawings**: Submit the shop drawings in accordance with **Section 01300**. Indicate the following:
.1 material, reinforcement, arrangement and component sizes
.2 method of installation system
.3 method of assembly and anchorage / fastenings
.4 Construction details: accurately reflect actual job conditions.

1.3.2 **Maintenance data**: Submit manufacturer's product data for materials. Include manufacturer's printed instructions for installation.

1.3.3 Section Includes:
.1 Penetrations through fire resistance rated wall assemblies.
.2 Joints between fire resistant rated assemblies.
.3 Perimeter gap between roof and exterior wall assembly.

2. Products

2.1 FIRE STOPPING AND SMOKE SEAL SYSTEMS

2.1.1 Provide asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of CAN4-S115 and not to exceed opening sizes for which they are intended. Fire resistance rating of installed fire stopping assembly not less than the fire resistance rating of surrounding floor and wall assembly.

2.1.2 **Service penetration assemblies and components**: Certified by ULC in accordance with CAN4-S115 and listed in ULC Guide No. 40U19, 40U19.13 and 40U19.15 under the Label Service of ULC.

2.1.3 **Fire stop products**: Flame Spread rating less than 25 and smoke developed rating less than 450 to ASTM E84 or CAN/ULC-S102.

2.2 MATERIALS AND ACCESSORIES

2.2.1 **Primers**: To manufacturer's recommendation for specific material, substrate, and end use.

2.2.2 **Water**: Potable, clean and free from injurious amounts of deleterious substances.

2.2.3 **Damming and backup materials, supports and anchoring devices**: To manufacturer's recommendations, and in accordance with tested assembly being installed as acceptable to authorities having jurisdiction.

2.2.4 **Sealants for vertical joints**: Non-sagging.

2.2.5 **Acceptable Manufacturers**:
.1 3M Fire Protection Product
.2 Tremstop Firestopping Systems
.3 Hilti Firestop Systems
.4 Grace Construction Products
.5 A/D Fire Protection

3. Execution

3.1 PREPARATION

3.1.1 Examine sizes and conditions of voids to be filled to establish correct thicknesses and installation of materials. Ensure that substrates and surfaces are clean, dry and frost free.

3.1.2 Prepare surfaces in contact with fire stopping materials and smoke seals to manufacturer's instructions.

3.1.3 Maintain insulation around pipes and ducts penetrating fire separation.

3.1.4 Mask where necessary to avoid spillage and over coating onto adjoining surfaces; remove stains on adjacent surfaces.

3.2 INSTALLATION

3.2.1 Install fire stopping and smoke seal material and components in accordance with ULC certification and manufacturer's instructions.

3.2.2 Seal holes or voids made by through penetrations, poke-through termination devices, and unpenetrated openings or joints to ensure continuity and integrity of fire separation are maintained.

3.2.3 Provide temporary forming as required and remove forming only after materials have gained sufficient strength and after initial curing.

3.2.4 Tool or trowel exposed surfaces to a neat finish.

3.2.5 Remove excess compound promptly as work progresses and upon completion.

3.3 CLEAN UP

3.3.1 Remove excess materials and debris and clean adjacent surfaces immediately after application.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 SUMMARY

1.2.1 This Section specifies sealing work not specified in other Sections. Refer to other Sections for other sealants.

1.3 QUALITY ASSURANCE

1.3.1 **Applicators**: Recognized and established sealant applicators with at least five years experience and having skilled mechanics thoroughly trained and competent in the use of sealant equipment and the specified materials.

1.3.2 Arrange with the sealant manufacturers for visits at the job site by their technical representatives before beginning the sealant installation to discuss the procedures to be adopted, to analyze site conditions and to inspect the surfaces and joints to be sealed.

1.4 SUBMITTALS

1.4.1 **Samples**: Submit the following samples in accordance with **Section 01300**.
.1 Sealants minimum 4" long x 3/8" diam. for each type of material and colour

1.5 DELIVERY, STORAGE, AND HANDLING

1.5.1 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels, intact. Protect from freezing, moisture and water.

2. Products

2.1 GENERAL

2.1.1 **Sealant-general**: Non-bleeding and capable of supporting their own weight except for the self-levelling type sealant for horizontal surfaces. Colour to be selected at future date by the Consultant.

2.2 MASKING, PRIMERS, AND CLEANING SOLVENTS

2.2.1 Provide products compatible with each other, designed to suit the specific job conditions and as recommended by the sealant manufacturer.

2.3 SEALANT - POLYURETHANE TWO COMPONENT

2.3.1 Multi-component modified polyurethane sealant, conforming to CAN/CGSB-19.24
.1 Acceptable products: Tremco Ltd DYmeric 240 or G.E. Silicones EP-6000

2.3.2 **Typical Locations**
.1 Door frames to masonry
.2 Under threshold (minimum two (2) continuous beads full length of threshold).

2.4 SEALANT - MILDEW RESISTANT SILICONE

2.4.1 CAN/CGSB-19.22, one component silicone
.1 Acceptable products: G.E. Silicones, Sanitary 1702 or Dow Corning Canada Inc. ,786 Mildew-resistant Silicone Sealant

2.4.2 **Typical Locations**:
.1 Around pipes and conduits passing through walls. Conceal sealant with escutcheons.
.2 Joints between fixtures and walls in washroom.
.3 Joints between water closets and walls and floors in washroom.

2.5 SEALANT - POLYURETHANE ONE COMPONENT

2.5.1 CAN/CGSB-19.13
.1 Acceptable products: DyMonic by Tremco Ltd.

2.5.2 **Typical Locations**:
.1 Interior gypsum board control joints.

3. Execution

3.1 PREPARATION

3.1.1 Prepare surfaces in accordance with manufacturer's directions. Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair work. Ensure joint surfaces are dry and frost free.

3.1.2 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.

3.1.3 Where necessary to prevent staining, mask adjacent surfaces prior to priming and sealing.

3.1.4 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to sealing.

3.2 INSTALLATION

3.2.1 Mix, apply, and cure sealant materials in strict accordance with manufacturer's instructions.

3.2.2 Provide sealant in continuous beads and fill voids and joints solid.

3.2.3 Tool form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities and to a slightly concave shape .

3.2.4 Do not cover up sealants until proper curing has taken place.

3.3 MOVEMENT JOINTS

3.3.1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.

3.3.2 Apply bond breaker tape and joint backing to achieve correct joint depth and shape in accordance with manufacturer's instructions.

3.4 CLEANING

3.4.1 Remove excess compound on adjacent surfaces promptly using recommended cleaners as work progresses and upon completion.

3.4.2 Remove masking after initial set of sealant.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

A.00 Description of work

Provide all labour, materials, and equipment required or called for in this specification, or which is necessary, to complete the work without any extra cost. This work may require any or all, but not be limited to any of the following:

.1 Rated interior steel doors and frames.

.2 Prepare frames with continuous bar reinforcement at head of frames for door closures as shown on Door and Frame schedule.

.3 Prepare frames with continuous bar reinforcement at jambs of frames for continuous piano hinges as shown on Door and Frame schedule.

.4 Prepare frame and door for new Universal Washroom 140B to receive electrical wiring and control switches for handicap door operator as supplied and installed under Section 08710 Finish Hardware.

1.2 RELATED WORK

1.2.1	Rough Carpentry	Section 06100
1.2.2	Finish Carpentry	Section 06200
1.2.3	Miscellaneous Sealant	Section 07900
1.2.4	Hardware	Section 08200

1.3 SUBMITTALS

1.3.1 **Shop drawings**: Submit the shop drawings in accordance with **Section 01300**. Indicate the following for each type of door and frame:

.1 material, steel core thicknesses, fire rating
.2 openings, mortises, reinforcements
.3 system arrangement and component sizes
.4 method of assembly and anchorage,
.5 locations of exposed fasteners,
.6 finishes and hardware

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Brace and protect doors and frames to prevent distortion during shipment. Store in a secure dry location.

1.4.2 Store doors vertically, resting on planks, with blocking between to allow air to circulate.

2. Products

2.1 MATERIALS

2.1.1 **Galvanized steel sheet**: ASTM A526, with a minimum zinc coating of 0.25 oz/sq.ft.

2.2 HOLLOW METAL DOORS

2.2.1 **Minimum thickness**:

.1 Door face, hollow steel construction: 16 gauge, unless otherwise indicated
.2 Lock and strike reinforcements: 10 gauge
.3 Hinge reinforcements: 6 gauge
.4 Closer reinforcements: 12 gauge
.5 Glazing stops: 20 gauge

2.2.2 **Door Core**:

.1 **Interior Doors**: Honeycomb Structural Core consisting of Kraft Paper honeycomb cells laminated to both inside faces of door, altered as required for fire-rated doors.

2.2.3 Fabricate doors with longitudinal edges seamless, spot welded at 4" o.c., filled and sanded flush.

2.2.4 Fabricate doors with top and bottom steel channels full width of door and welded to both faces.

2.3 PRESSED STEEL FRAMES

2.3.1 **Minimum thickness**:

.1 Door frame: 16 gauge
.2 Lock and strike reinforcements: 10 gauge
.3 Hinge reinforcements: 10 gauge
.4 Anchors: 20 gauge
.5 Closer reinforcements: 12 gauge

2.3.2 **Resilient bumpers**: Round, grey rubber, stud mount. Provide 3 bumpers on strike jamb for each single door.

2.3.3 Cut frame mitres and joints accurately and weld continuously on inside of frame profile.

2.3.4 Grind welded corners and joints to flat plane, fill with metallic paste filler and sand to uniform smooth finish. Knock down frames are not acceptable

2.3.5 Provide jamb anchors for fixing at floor.

2.4 TOUCH-UP PRIMER

2.4.1 Zinc rich galvanized metal primer.

2.5 GENERAL FABRICATION

2.5.1 Blank, reinforce, drill and tap doors and frames for mortised hardware. Reinforce doors and frames for surface mounted hardware. Provide touch up primer to doors and frames where coating has been removed during fabrication.

2.5.2 Make provisions in doors and frames to suit requirements of Section providing security devices. Provide removable plates or knock-outs for electrical contacts as necessary.

2.5.3 Make provision for glazing as indicated and provide necessary glazing stops.

2.6 FIRE RATED DOORS AND FRAMES

2.6.1 Labelled and listed by an organization accredited by Standards Council of Canada in conformance with CAN4 S104M and CAN4 S105M for ratings specified or indicated. Locate fire rating labels on the inside of the frame hinge jamb and door hinge edge midway between the top hinge and the head of the door.

3. Execution

3.1 HOLLOW METAL DOORS

3.1.1 Provide even margins between doors and jambs and doors and finished floor and thresholds as follows:

.1 Hinge side: 3mm
.2 Latchside and head: 3mm
.3 Finished floor for thresholds: 6mm

3.1.2 Adjust operable parts for correct function.

3.2 PRESSED STEEL FRAMES

3.2.1 Set frames plumb, square, level and at correct elevation and secure anchorages and connections to adjacent construction.

3.2.2 Provide suitable anchors to suit construction. Use one base anchor and two wall anchors per jamb side for frames up to 1500mm and one additional wall anchor per jamb side for each additional height of 700mm or fraction thereof.

3.3 TOUCH-UP

3.3.1 Touch up galvanized finish damaged during installation with primer.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.1.2 Do work of this Section to requirements of AWMAC Quality Standard, Architectural Grade.

1.2 PROTECTION

1.2.1 Carefully wrap, crate, and ship doors, to provide protection of edges and finishes and to control moisture levels during shipment and storage.

1.2.2 Protect doors from dampness. Arrange for delivery after work causing abnormal humidity has been completed. Store doors in well ventilated room, off floor, in accordance with manufacturer's recommendations.

1.3 SUBMITTALS

1.3.1 **Samples**: Submit the following samples in accordance with **Section 01300**.
.1 one 12" x 12" corner sample of each type wood door, showing door construction, core and face veneers.

1.3.2 **Extended Warranty**: Submit a written warranty in accordance with **Section 01300**.
.1 warranty period of 5 years
.2 scope of the warranty: the work of this Section against defects in the materials and workmanship of the work of this Section, including but not limited to warping, cupping, twisting, shrinkage, swelling, delamination and splitting.
.3 Commencement: Substantial Performance of the Work

2. Products

2.1 MATERIALS

2.1.1 Unless otherwise specified herein, materials shall comply with requirements of CSA 0132.2.

2.1.2 **Crossbanding**: 1/16" thick hardwood veneer.

2.1.3 **Stiles and rails**: Hardwood. Stile thickness minimum 1-1/2" and rail thickness minimum 1-1/8".

2.1.4 **Adhesive**: Waterproof Type 1.

2.1.5 **Sealer**: Compatible with finish to be applied to doors.

2.2 FABRICATION

2.2.1 **Door thickness**: 1 3/4" unless indicated otherwise.

2.2.2 Completely seal wood edges and edges of cut-outs in shop. Apply sealer in accordance with the manufacturer's printed instructions.

2.2.3 Bevel edges of single acting doors 1/8" on lock side and 1/16" on hinge side. Undercut doors as indicated in the shop.

2.2.4 Reinforce doors for mortised and surface mounted hardware.

2.3 SOLID CORE DOORS

2.3.1 Solid core wood doors (stain grade):

.1 Particle board CAN3-0188.1, extruded particle board, minimum density of 28 pcf.
.2 Crossbanding: 1 ply, each side, laminated to core, stiles, and rails
.3 Face veneer: CSA 0115, 3 ply, 1/8" thick minimum, birch veneer, stain grade, pressure laminated to crossbanding with Type 1 waterproof adhesive.

3. Execution

3.1 INSTALLATION

3.1.1 Provide wood doors in accordance with manufacturer's printed instructions.

3.1.2 Provide even margins between doors and jambs and doors and finished floor as follows:

.1 Hinge side: 1/8".
.2 Latchside and head: 1/8".
.3 Finished floor: 1/2".

END OF SECTION

1. General

1.1 RELATED WORK SPECIFIED ELSEWHERE

1.1.1 Wood Doors — Section 08200

1.2 SUBMITTALS

1.2.1 Refer to Hardware Schedule included with this specification

1.2.2 Examine Drawings, Schedules and Shop Drawings to be sure that hardware listed can be used as specified and as indicated.

1.3 PRODUCT DELIVERY, STORAGE AND HANDLING

1.3.1 Delivery – Supply hardware as and when required for each opening. Package hardware separately for each opening in a package which contains all the hardware for that opening and bears the number of the opening. Supply hardware to those who are to install it, complete with keys, templates and installation instructions together with all required screws, expansion shields, anchors, jigs and other related accessories for satisfactory attaching or installing hardware.

1.4 GENERAL REQUIREMENTS

1.4.1 All door closers shall have back checking features and shall be of proper size to operate door efficiently.

1.4.2 Exposed screws for installing hardware shall have Phillips or Robertson heads.

1.4.3 Rim panic device strikes shall be mortise type application. Equip panic devices with sex bolts.

1.4.4 Confirm degree of swing for door holders, closers, etc.

1.5 FIELD QUALITY CONTROL

1.5.1 Check all hardware when it has been installed and notify Consultant of any cases where it has been improperly installed, is defective or is not as specified.

1.6 WARRANTY

1.6.1 All hardware to be Warranted for an extended period of one (1) year.

2. Products

2.1 MATERIALS

2.1.1 Refer to Section 08720 for Door Hardware.

3. Execution

3.1 INSTALLATION

3.1.1 Installation of Finish Hardware under Section 06100 – Carpentry.

END OF SECTION

DOOR HARDWARE

08720

PROJECT:

MonAvenir
CONSEIL SCOLAIRE CATHOLIQUE

École Saint-Jean-Baptiste
Mississauga, ON

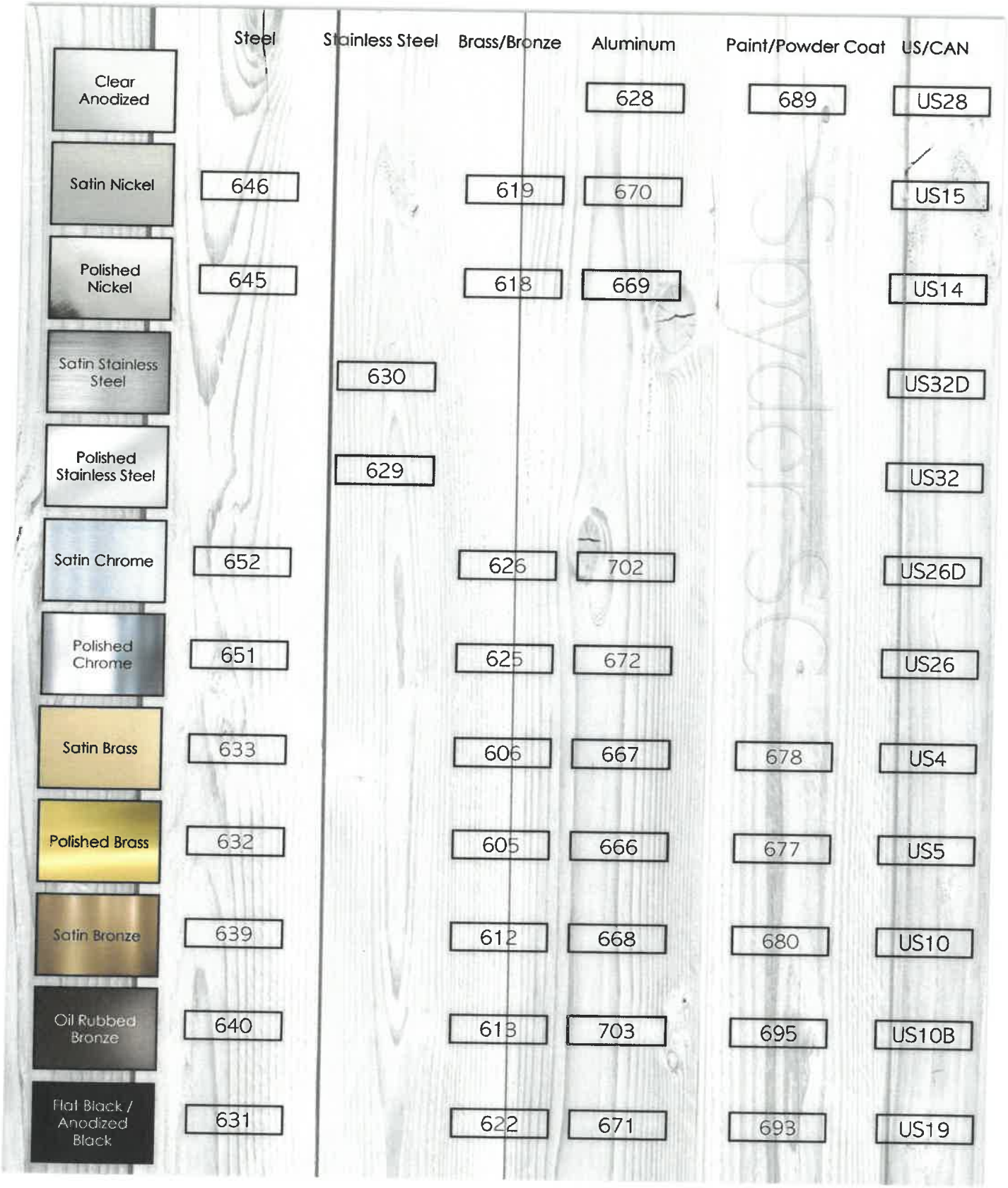
ARCHITECT:

DENIS GERALD RIOUX
ARCHITECT

63 Heman Street
Toronto, ON

Prepared By: Crystal Van Stralen
Date: February 26, 2025
Revised:

Architectural Hardware Finishes



Door Handing's

Abbreviations

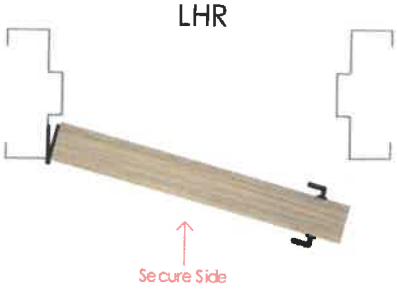
RH = Right Hand	RHA = Right Hand Active	SS = Single Slider
LH = Left Hand	LHA = Left Hand Active	BP = Bi-Parting Slider
RHR = Right Hand Reverse	RHA/LHA = Right & Left Hands Active	BF = Bi-Folding Slider
LHR = Left Hand Reverse	RHRA/LHRA = Right & Left Hand Reverse Active	TS = Telescopic Slider
RHRA = Right Hand Reverse Active	DA = Double Acting	PKT = Pocket Slider
LHRA = Left Hand Reverse Active	DE = Double Egress	

NOTE: The handing of a swing door is determined by placing yourself on the secured or keyed side of the door.

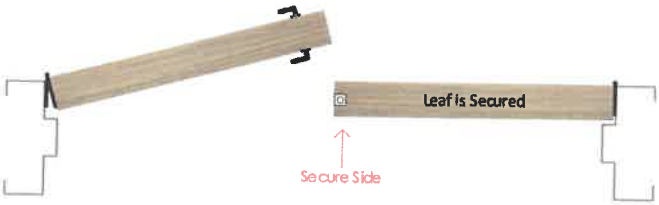
LH

RH

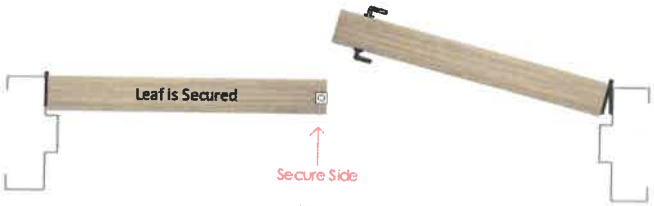
LHR



RHR

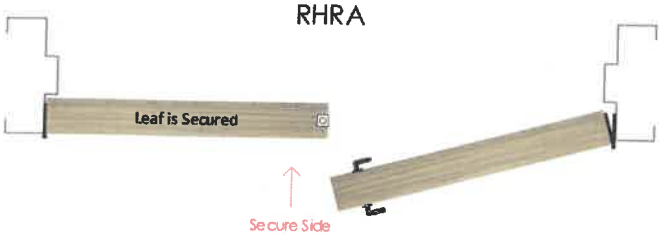


LHA



RHA

RHRA

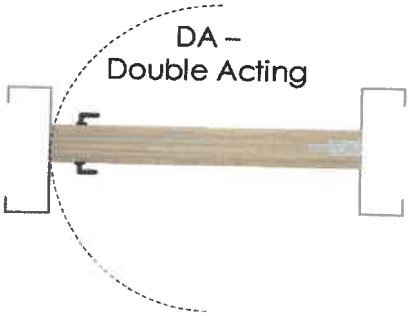


LHRA

LHRA/RHRA

LHA/RHA

DA –
Double Acting



DE- Double Egress

PKT- Pocket Door

SS- Single Sliding Door

BP- Bi Parting Sliding Door

BPS- Bi Passing Sliding Door

Products & Alternatives

NOTE: Only those products / brands listed here are acceptable and should be used to form a bid price. No unsolicited products will be considered. If acceptable alternates are listed here those too can be used to form a bid price provided, they are exactly the same as the specified item. If using an alternate product to form a price it is the bidder's responsibility to ensure that product is identical in every way to the specified item. If no alternates are listed, no alternate products are acceptable.

Product Type	Product#	Manufacturer	Alternate Manufacturer 1	Alternate Manufacturer 2
Butt Hinges	3CB1	Ives		
Storeroom Mortise Lock	L9080	Schlage		
Electric Strike	1500C	HES		
Kick Plate	CBH 903	CBH		
Smoke / Sound Seal	W-22	KN Crowder		
Door Sweep	W-24S	KN Crowder		
Auto Operator	SW200i	Besam		
Restroom Control Kit	CX-WC17-FE	Camden		
Emergency Call Kit	CX-WEC10BK2-FE	Camden		
Dome Light	CM-AF142SOFE	Camden		
Overhead Stop	104S	Glynn Johnson		

Symbols

- Door has a fire rating and all associated hardware must have a fire label to suit. Must comply with local requirements.

- Door is automatic and is equipped with an auto operator. Door must meet local barrier free codes

- Door has an electrical requirement and requires power to be brought to the appropriate location above the door or to the latch, for either security or barrier free applications. Refer to security & electrical drawings for further information.

- Door requires security card access. Refer to security / electrical drawings for further information.

Abbreviations

Door:

HMD = Hollow Metal Door
IHMD = Insulated Hollow Metal Door
ALD = Aluminum Door
SSD = Stainless Steel Door
ISSD = Insulated Stainless Steel Frame
STL = Steel Door
IC-ALD = Insulated Clad Aluminum Door
SCWD = Solid Core Wood Door
HCWD = Hollow Core Wood Door
FGD = Frameless Glass Door
FRP = Fiberglass Reinforced Plastic Door
OHD = Overhead Door

Frame:

HMF = Hollow Metal Frame
ALF = Aluminum Frame
Cased Open HMF = Cased Open Hollow Metal Frame
SSF - Stainless Steel Frame
STL = Steel Frame
WDF = Wood Frame
Cased Open WDF = Cased Open Wood Frame
Cased Open Drywall = Cased Open Drywall

Fire Ratings:

0 HR – Zero Hour Fire Rating / Smoke Barrier
20 MIN – 20 Minute Fire Rating
¾ HR – 45 Minute Fire rating
1 ½ HR – 90 Minute Fire Rating
2 HR – 120 Minute Fire Rating
3 HR – 180 Minute Fire Rating

Disclaimer

Weblinks:
Weblinks do change from time to time as manufacturers move around their websites, please inform us if you have a none functioning weblink.

HARDWARE SCHEDULE

Heading# 1

Opening Information

Opening Type:	Single	**Opening Size:**	965 x 2134 x 45	**STC Rating**	None
Door Material:	SCWD	**Frame Material:**	HMF	**Fire Rating**	None

1 **Total Openings**

1 **Door#** 140B **Location:** Corridor To Universal Washroom 140B **Handing:** LH

By Hardware Supplier					
3	Butt Hinges	3CB1 – 127 x 114	630 / US32D / Satin Stainless Steel	Ives	
1	Storeroom Mortise Lock	L9080-P6-07A	630 / US32D / Satin Stainless Steel	Schlage	
1	Electric Strike	1500C (fail safe)	630 / US32D / Satin Stainless Steel	Schlage	
1	Kick Plate	CBH 903 – 203 x 927 x 3M TAPE	630 / US32D / Satin Stainless Steel	CBH	
1	Floor Stop	CBH 87	630 / US32D / Satin Stainless Steel	CBH	
1	Smoke / Sound Seal	W-22 x 5235	Black	KN Crowder	
1	Door Sweep	W-24S x 965	628 / US28 / Clear Anodized	KN Crowder	
By Automatic Operator Supplier					
1	Auto Operator	SW200i x PUSH x 1041mm Header	628 / US28 / Clear Anodized	Besam	
1	Column Switch Restroom Control Kit	CX-WC17-FE	630 / US32D / Satin Stainless Steel	Camden	
1	Emergency Call Kit	CX-WEC10BK2-FE	630 / US32D / Satin Stainless Steel	Camden	
By Owner					
1	Permanent Cylinder	By Owner			

Notes:

- 120VAC is required at the head of the door for all barrier free door operators, 15A dedicated circuit. Wall/Frame must be reinforced for automatic operator mounting, all conduit and back boxes for actuators, emergency call kits, and washroom locking kits with pull cords are to be provided by the electrical contractor.
- Electrician to confirm wire locations with auto door operator supplier prior to pulling wires

End of Heading

END OF SCHEDULE

1. General

1.1 RELATED WORK SPECIFIED ELSEWHERE

1.1.1	Fire Stopping and Smoke Seal	Section 07270
1.1.2	Finish Painting	Section 09900

1.2 STANDARDS

1.2.1 Metal furring, and gypsum wallboard shall comply with the requirements of ASTM C 36-95 and ASTM C 84-95 unless otherwise specified herein. Where notes in italics occur in ASTM and are recommendations to this work, they shall be followed, but notes suggesting substitutes may not be followed unless approved by the Consultants.

1.3 ULC FIRE RESISTANCE RATINGS

1.3.1 Fire rated partitions and ceilings to conform to all requirements of Underwriters' Laboratories of Canada designs to provide the required fire resistance ratings.

1.4 SUBMITTALS

1.4.1 Provide samples of materials and finishes for approval, conforming to requirements of Section 01300.

1.4.2 Samples when approved will serve as a basis for approving finished work.

1.5 DELIVERY, STORAGE AND HANDLING

1.5.1 Gypsum board insulation and cementitious materials shall be kept under cover and free from dampness and temperature extremes.

1.5.2 Deliver and store corner beads, casing beads and similar items in crates to prevent damage to the material.

1.6 PROTECTION

1.6.1 Protect surrounding surfaces against damage. Use approved means as required to ensure adequate protection.

2. Products

2.1 MATERIALS

2.1.1 Steel Studs: 92 mm wide unless otherwise noted, 0.021" thick, hot dipped galvanized steel sheet, for self-drilling screws, by Bailey Metal Products Ltd., or approve alternate.

2.1.2 Steel partition runners: channel 0.03" thick, hot dipped galvanized steel, by Bailey Metal Products Ltd.

2.1.3 Corner Beads: ASTM C 1047-94 32 mm x 32 mm expanded flanges, 0.021" thick, galvanized steel by Bailey Metal Products Ltd., or approve alternate.

2.1.4 Casing Beads: ASTM C 1047-94 channel type casing CGC Model 200-A, galvanized steel, size to suit thicknesses of drywall, by Bailey Metal Products Ltd.

2.1.5 Channel trim: ASTM C 1047-94 model 4411 channel type trim by Bailey Metal Products Ltd.

2.1.6 Control joints: ASTM C 1047-94 formed galvanized steel, by Bailey Metal Products Ltd., or approved alternate.

2.1.7 Drywall and accessories: gypsum board with tapered edges, conforming to ASTM C 36-95, and as specified in the paragraphs below. Sizes: 1200 mm wide and in lengths to minimize the number of joints.

2.1.8 Gypsum board: 16 mm thick, except as noted to suit fire rated assemblies.

2.1.9 Cement Board: 9mm Hardie Board 750mm x 1500mm, or equal.

2.1.10 Bottom 600mm of new partitions: 16mm thick Dens Armor Plus Fireguard Interior Guard Board by G-P Gypsum Corporation with smooth face for paint finish.

2.1.11 Batt Insulation: CSA A101 Type 1 mineral wood batts, 3" (75mm) minimum thickness, minimum density 3 lbs/cubic foot by Roxul Inc or e**qual.**

2.1.12 Screws: ASTM C 954-93 type 'S' self-drilling, self-tapping steel drywall screws for use with power operated driver.

2.1.13 Joint treatment materials: as recommended by manufacturer of the gypsum board.

2.1.14 Acoustical Insulation: "Noise Stop" as manufactured by Owens-Corning Fibreglas Canada Ltd., or approved alternate.

2.1.15 Sealant (acoustical): Tremco acoustical sealant as manufactured by the Tremco Manufacturing Company (Canada) Limited.

3. Execution

3.1 LOCATION

3.1.1 Refer to finish schedule and the drawings for location of drywall partitions.

3.2 COORDINATION

3.2.1 Prior to commencing installation, check that all overhead architectural, mechanical and electrical work is complete and that work area is free from excessive moisture.

3.2.2 After installation of light fixtures and diffusers, check ceiling and make good ceiling deficiencies.

3.3 CONSTRUCTION OF ACOUSTICAL SYSTEM

3.3.1 Install acoustical insulation batts as specified herein.

3.3.2 A 6 mm continuous bead of acoustical sealant around perimeter of wall at web of top and bottom tracks and end studs. Lay gypsum board into position forcing caulking bead to fill

space between gypsum board and structure.

3.3.3 Seal full perimeter for cut-outs around electrical boxes and ducts with acoustical sealant.

3.3.4 Extend metal studs, acoustical insulation blanket and both layers of drywall above ceilings to underside of roof deck.

3.4 STEEL STUD PARTITIONS

3.4.1 Refer to drawings for extent and location of steel stud partitions.

3.4.2 Install steel studs in strict accordance with the manufacturer's printed instructions.

3.4.3 Where metal studs extend to underside of structure above provide minimum 9 mm clearance between top of studs and channel runners to avoid transmission of structural loads to studs and fill with firestop.

3.4.4 Align and secure channel runners at floor and at underside of structure or suspended ceiling over, set plumb and true to line vertically and horizontally, according to partition layout indicated on drawings. Secure in place with suitable fasteners located 50 mm from each end and spaced 600 mm o.c. or to suspended ceilings with toggle bolts or molly bolts spaced 400 mm o.c.

3.4.5 Position and secure steel studs vertically into runner channels at 400 mm on centre, and not more than 50 mm from abutting walls, openings and each side of corners.

3.4.6 Supply accessories required to complete the installation including, extension, reinforcing channels and anchors.

3.4.7 Provide double studs at each side of openings and at corners. Reinforce at 600 mm centres with reinforcing channels.

3.4.8 Install continuous double studs, on both sides of all door frames extending from floor to ceiling runner.

3.4.9 Build into stud framing pressed metal door frames and pressed metal screens using anchors furnished with frames. Set true and plumb and leave ready for hanging of doors and glazing.

3.4.10 At all locations where wall mounted fitments, fixtures, grab bars and other accessories occur set double 38 mm steel channels between studs at proper height for securing of units.

3.4.11 Where noted install acoustical insulation batts in interior drywall partitions between studs full height of all partitions whether extending to underside of structure above or to underside of ceiling.

3.5 INSTALLATION - GENERAL

3.5.1 Apply drywall with screws spaced at 300 mm o.c. at mid panel and at edges, staggered, no closer than 9 mm from edges and ends driven slightly below the surface leaving a shallow dimple.

3.5.2 Cut all openings with saw leaving square edges.

3.5.3 Loosely butt all joints to be taped.

3.5.4 Stagger all end joints and the joints between panels to achieve a maximum of bridging and a minimum of continued joints. Stagger joints on opposite sides of partitions.

3.6 INSTALLATION – METAL TRIM

3.6.1 The drawings do not purport to show all metal trim required; verify with the Consultant the precise locations and types of trim to be used.

3.6.2 Carefully inspect the drawings and verify location of all metal trim required.

3.6.3 Install all trim in strict accordance with the manufacturer's recommendations paying particular attention to make all trim installation plumb, level and true to line with firm attachment to supporting members.

3.6.4 Reinforce all vertical projecting angles, vertical and horizontal exterior corners with metal corner beads fastened with staples 225 mm o.c. on both flanges along entire length of beads. All vertical reinforcing to be in one piece full height.

3.6.5 Where gypsum wallboard assembly terminates against dissimilar material, install metal casing bead to stop the wallboard and form proper junction. Secure at 300 mm o.c. along entire length of beads. Beads shall be in one length up to 3 m and no lengths shall be less than 1800 mm. Mitre and fit corners and junction accurately and free from rough edges, suitable for taping and finishing.

3.7 ACCESS PANELS

3.7.1 Install access panels as provided by others.

3.8 TAPING AND FINISHING

3.8.1 Environmental Conditions:

.1 Control heating and ventilating during finishing operations to ensure the maintenance of 13 deg. C minimum temperature.

.2 First Coat:

.1 Spread compound evenly over all joints, using suitable tools designed for the purpose.

.2 Fill all joint recesses and metal trim.

.3 Centre the reinforcing tape on the joint and press into the fresh compound, wiping down with sufficient pressure to remove excess compound but leaving sufficient compound under the tape for proper bond.

.4 Feather all edges and leave the surface free from blisters and tape wrinkles.

.5 Apply compound to all fastener recesses, metal trim and control joints, leaving flush with the adjacent surfaces.

.6 Fold reinforcing tape along its centreline and apply to all interior angles, following the same procedure as for joints.

.3 Second Coat:

.1 Lightly sand the dry compound with fine sandpaper to remove all irregularities.

.2 Apply a second coat of compound to all joints, feathering approx. 75 mm beyond edges of tape.

.3 Apply second coat to all fastener recesses, metal trim and control joints; allow to dry.

.4 Third Coat:

.1 Lightly sand the dry compound with fine sandpaper to remove all irregularities.

.2 Apply final skim coat, feathering out approx. 50 mm beyond second coat.

.3 Third coat all fastener recesses, metal trim, control joints and all interior angles; allow to dry.

.4 Carefully sand the third coat to a uniform smooth surface completely free from irregularities visible to the unaided eye at the distance of 1500 mm.

END OF SECTION

1 GENERAL

1.1 GENERAL REQUIREMENTS

.1 The General Conditions of the Contract, Supplementary Conditions, and the General Requirements, form part of this section, and must be read in conjunction with the requirements of this section. The work of this section shall comply with the General Requirements.

.2 The Contractor shall, together with any and all Subcontractors involved in the work of this section, examine all surfaces or conditions relating to the Work, in order to determine the acceptability of such surfaces or conditions for the work of this section to commence.

.3 Subcontractors shall report in writing, any observed defects or deficiencies in any surfaces or conditions that would adversely affect the work of this section, to the Contractor for correction prior to commencing the work of this section.

.4 Commencement of the work of this section shall imply acceptance of all surfaces and conditions.

1.2 SECTION INCLUDES

.1 Provision of all labour, materials, equipment and incidental services necessary to provide porcelain floor and wall tile installation.

1.3 RELATED SECTIONS

.1 Section 09060 – Concrete Floor Slab & Wall Preparation for Applied Finishes

1.4 REFERENCE STANDARDS

.1 ANSI A108 Series; Specifications for Installation of Ceramic Tile.
.2 ANSI A118 Series; Specifications for Mortars and Grouts for Ceramic Tile Installation.
.3 ANSI A136.1; Standard for Organic Adhesives for Installation of Ceramic Tile.
.4 ANSI A137.1; Recommended Standard Specifications for Ceramic Tile.
.5 ASTM C1028; Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces Using the Horizontal Dynamometer Pull-Meter Method.
.6 Ceramic Tile Installation Manual 200; Terrazzo Tile and Marble Association of Canada (TTMAC).

1.5 QUALITY ASSURANCE

.1 Installer
  .1 Installer shall have a minimum of two (2) years documented experience in the installation of tile, and shall be approved as such by the manufacturer. If requested, submit documentation to the Consultant prior to commencement of work.

.2 Pre-application Meeting
  .1 Convene a pre-application meeting for the Products specified in this section. Attendees must include, as a minimum, representatives of the following:
    .1 Contractor (Site Superintendent & Project Manager),

.2 Application Subcontractor (Site Foreman & Project Manager),
.3 Product Manufacturer and/or Distributor (Technical Representatives),
.4 Related Subcontractors,
.5 Consultant.

1.6 MAINTENANCE MATERIAL

.1 Provide minimum 5% of each type and colour of tile required for project for maintenance use.

.2 Maintenance material to be of same production run as installed material.

.3 Provide instructions for the care and maintenance of all tile for this project.

1.7 REGULATORY REQUIREMENTS

.1 Installation of tile and threshold at doorway shall conform to OBC 3.1.8.10(3) to maintain air ventilation from corridors.

.2 Conform to OBC requirements of thresholds for barrier-free access.

1.8 ENVIRONMENTAL CONDITIONS

.1 Maintain air temperature and structural base temperature at porcelain tile installation area above (50°F) 10°C for 48 hours before, during, and 48 hours after installation.

.2 Exclude construction traffic from areas to receive tile during installation and curing period.

.3 Protect tile flooring subjected to construction traffic with non-staining covers.

1.9 EXTENDED WARRANTY

.1 Provide Mortar and Grout manufacturer's system warranty guaranteeing that the listed products, installed as per the manufacturer's approved methods and practices, will not fail due to material or manufacturing defects for a period of five (5) years from the Date of Substantial Performance.

.2 Warranty shall cover the total replacement cost (all labour and materials) of the defective area.

2 PRODUCTS

2.1 TILE MATERIALS

.1 Universal Washroom 140B Floor Tile (T-1): unglazed porcelain floor tile 300mm x 600mm (12" x 24"), Clay Canvas, Paint CC02, Matte Finish, by Daltile.

.2 Tile Base: same tile as flooring: 4" (100mm) high base cut from larger format.

.3 Boys Washroom Floor Tile (T-2): Unglazed porcelain floor tile 300mm x 600mm (12" x 24"), minimum taupe MN42, Matte Finish, by Daltile. Refer to Floor Plan.

.4 Boys Washroom Wall Tile (T-3): 75mm x 100mm (3" x 6"), colour Wheel Almond 0135, Glossy finish, by Daltile. Refer to drawing elevations.

.5 Boys Washroom Accent Wall Tile (T-4): 75mm x 100mm (3" x 6"), colour Wheel Classic Desert Gray X114, Glossy, by Daltile. Refer to Drawing elevations.

2.2 MORTAR AND ADHESIVE MATERIALS

.1 Thin-Set Floor Mortar: latex-modified Portland cement, thin-set mortar, to ANSI 118.4. Acceptable Products are:
- .1 Kerabond/Keralastic by Mapei Inc.
- .2 Laticrete® 4237/211, by Laticrete International Inc.
- .3 Fast Set 3N Performance mortar by H.B. Fuller Construction Products.
- .4 Premium-Blend™/Acrylic Mortar Admix, by Custom Building Products.
- .5 ARDEX X4™ Thin-Set Mortar, by Ardex Engineered Cements.

.2 Large Format Tile Mortar: latex-modified Portland cement mortar, to ANSI 118.4. Acceptable Products are:
- .1 Ultraflex LFT by Mapei Inc.
- .2 Laticrete® 220/333, by Laticrete International Inc.
- .3 3N1 Performance Mortar™, by Tec Specialty Products Inc.
- .4 ProLite™ Tile and Stone Mortar, by Custom Building Products.
- .5 ARDEX X77™ MICROTEC® Fibre-Reinforced Thin-Set Mortar, by Ardex Engineered Cements.

.4 Wall Tile Adhesive: Pro HPX mortar, slump resistant polymer, modified thin set mortar by PROMA Adhesives Inc., or equal.

2.3 GROUT

.1 Floor and Wall Grout: TEC Power Grout by H.B. Fuller Construction Products. Colours to later selection based on manufacturer's standard range of colours.

2.4 ACCESSORIES

.1 Floor Patch & Leveller: 567 Contractor grade latex-modified cement floor patch and self-leveler and fast set deep patch and additive for major areas of work.

.2 Sealant: neutral-cure, non-sag, 100% silicone sealant, mold and mildew resistant; colour to match grout. Acceptable Products are:
- .1 ARDEX SX™ Silicone Sealant, by Ardex Engineered Cements.

.3 Transitions & Accessories

- .1 Tile Floor
  - .1 Edge Protection: Schluter-SCHIENE-AE, by Schluter Systems (Canada) Inc.

.4 Floor levelling system: Raimondi Tile Levelling System

2.5 MORTAR MIXES

.1 Mix ingredients in accordance with mortar and grout manufacturer's printed instructions.

.2 Measure mortar ingredients by volume. Mix thoroughly to smooth, homogeneous consistency.

.3 Use low speed mixer (150 rpm). Avoid air entrapment and prolonged mixing.

.4 Let slake 10 to 15 minutes. Re-stir without adding liquid.

2.3 DOOR THRESHOLD

.1 Mill Finish, ADA Compliant, Model # CT-707 STD, by KN Crowder.

3 EXECUTION

3.1 SURFACE PREPARATION

.1 Ensure substrates are dry, clean, and free of all oil, grease and other materials detrimental to the installation of setting bed materials.

.2 Ensure substrates are sound, level, free of cracks greater than 3mm (1/8") in width, and changes in elevation that may adversely affect installation.

.3 Apply leveling and patch material to substrate in accordance with written instructions of the leveling and patch material manufacturer.

3.2 QUALITY OF WORK

.1 Fit tile around corners, fitments, fixtures, drains and other built-in objects. Maintain uniform joint appearance. Cut edges smooth and even.

.2 Maximum surface tolerance (1:80).

.3 Lay out tiles so perimeter tiles are minimum 1/2 size. Layout of tiles must be approved by the Consultant prior to installation and consistent from floor to floor.

.4 Sound tiles after setting and replace hollow-sounding units to obtain full bond.

.5 Make joints between tile uniform and approximately 3mm wide, at inner wall and wider at exterior wall to provide a constant radial floor layout, constant width on elevator wall applications, with joints flush with adjacent tile.

.6 Make inside corners of base square butt joints, and outside corners bull-nosed using metal corner trim as specified.

.7 Clean installed tile surfaces thoroughly after installation and grouting has cured.

3.3 TILE INSTALLATION

.1 Apply setting bed material with a clean, round or square-notched trowel of type recommended for that material. Do not apply more material than can be covered with tiles in 10 minutes (approx. $1m^2$).

.2 Slope setting bed to floor drains where indicated on the drawings.

.3 Install transitions in setting bed. Install in one piece for full length of openings. Mitre at all corners. File sharp edges smooth.

.4 Place tiles firmly into setting bed using a slight twisting motion to ensure full contact. Immediately beat-in tile to flatten all ridges or notches and level large format floor tile with Raimondi Tile Levelling system.

.5 Clean out joints of excess mortar, and wipe smudges from tile face.

.6 Install specified tile bases with accessories.

.7 Allow minimum 24 hours after installation of tiles, before grouting.

3.4 GROUTING

.1 Dampen surface of tile with a damp towel. Do not flood or overly wet tiles.

.2 Using a purpose-made rubber float, apply grout evenly by moving across tiles diagonally first in one direction and then in the opposite direction, to ensure joints are filled with material. Promptly remove excess grout as the work progresses, using rubber float.

.3 Allow grout to dry 10-15 minutes.

.4 Remove remaining grout using wet sponge and clean water, by repeatedly dragging sponge across the surface of the tiles, rinsing and changing the water frequently.

.5 Allow grout to cure minimum 3 to 4 hours before cleaning off any remaining grout "haze".

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 QUALITY ASSURANCE

1.2.1 Provide ceilings using mechanics skilled in this trade and in accordance with system manufacturer's printed directions to produce a finished ceiling level, in true plane, free from distorted, warped, soiled or damaged panels or grid.

1.2.2 Comply with ASTM C635 Intermediate Duty and C636 except as otherwise specified herein.

1.2.3 Maximum deflection of completed ceiling system: 1/360 of span.

1.2.4 Finished ceiling system to be square with adjoining walls and level within 1:1000.

1.3 SUBMITTALS

1.3.1 **Samples**: Duplicate full size samples of each type acoustical units and 12" long grid members.

1.4 ENVIRONMENTAL CONDITIONS

1.4.1 Permit wet work to dry before commencement of installation.

1.4.2 Store materials in work area 48 hours prior to installation.

1.5 EXTRA STOCK

1.5.1 Provide two percent of each pattern and type of acoustical units. Store where directed. Extra stock to be same production run as installed materials.

2. Products

2.1 MATERIALS

2.1.1 **Acoustic units**: Armstong Fine Fissured No. 1830 for new ceiling.

2.1.2 **Exposed main tee**: Prefinished galvanized steel, 15/16" exposed face and 1-1/2" high bulb tee design with double web and separate exposed cap piece, maximum length, with reversible and integral splice. Finish tee in baked enamel, colour to match existing.

2.1.3 **Exposed cross tee**: Prefinished galvanized steel, 15/16" exposed face and 1-1/2" high bulb tee design of same fabrication as main tee, with off-set ends to allow cross tee flange to sit on main tee flange providing flush exposed faces, and with positive interlock to main tee. Finish to match main tees.

2.1.4 **Hangers and wires**: Galvanized hangers and 12 gauge minimum galvanized steel wire.

2.1.5 **Hold-down clips**: Spring steel clips by the grid system manufacturer.

2.1.6 **Wall moulding**: Formed 1" x 1" galvanized steel with 1" exposed face, hemmed edges, prefinished to match tees.

2.1.7 **Adhesive**: Recommended by acoustic unit manufacturer.

3. Execution

3.1 INSTALLATION - GENERAL

3.1.1 Provide work in accordance with ASTM C636 and to manufacturer's instructions except where specified otherwise.

3.1.2 Provide work in accordance with ASTM C636-86 and to manufacturer's instructions except where specified otherwise.

3.1.3 Do not commence installation until work above ceiling has been inspected by Consultant.

3.1.4 Lay out system in accordance with reflected ceiling plans.

3.1.5 Ensure work is co-ordinated with location of related components.

3.2 INSTALLATION - GRID SYSTEM

3.2.1 Provide hangers spaced at maximum [1200 mm|48"] centres and within [150 mm|6"] from ends of main tees.

3.2.2 Provide wall moulding to provide correct ceiling height.

3.2.3 Provide additional ceiling suspension hangers within [150 mm|6"] of each corner and at maximum 24" around perimeter of light fixtures and diffusers.

3.2.4 Interlock cross tees to main tees to provide rigid assembly.

3.2.5 Frame at openings for light fixtures, air diffusers, speakers and at changes in ceiling heights.

3.3 INSTALLATION - ACOUSTICAL UNITS

3.3.1 Neatly cut acoustic units for mechanical and electrical and other services.

3.3.2 Carefully fit acoustic units in place; no broken edges permitted.

3.3.3 Scribe acoustic units to fit adjacent work. Butt joints tight, terminate edges with moulding.

3.3.4 Neatly rebate, and chamfer acoustic units, cut during installation e.g. at perimeters, to rest evenly and continuously on the suspension system and perimeter support angles and to match any regular edging within the field of the ceiling.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 SUBMITTALS

1.2.1 **Samples**: Submit the following samples in accordance with **Section 01300**.
.1 minimum 12" square of each resilient flooring
.2 minimum 12" long of each base and adapters

1.2.2 **Recommended maintenance data**: Submit 3 copies of the system manufacturers' procedures as part of the Project Record Manual.

1.3 ENVIRONMENTAL REQUIREMENTS

1.3.1 Maintain air temperature and structural base temperature at flooring installation area above 20 degrees C for 48 hours before, during and for 48 hours after installation.

2. Products

2.1 PRIMERS AND ADHESIVES

2.1.1 **Primers and adhesives**: Nontoxic, odourless, waterproof type, recommended by flooring manufacturer for specific material on applicable substrate, above, or at grade.

2.2 SUBFLOOR FILLER / LEVELLER

2.2.1 White premix latex requiring water only to produce cementitious paste.

2.3 ADAPTERS

2.3.1 **Flooring adapter**: As required to suit.

2.4 VINYL COMPOSITE TILE (VCT)

2.4.1 **Resilient tile flooring**: Vinyl composition tiles, to ASTM F1066 Class 2 (through Pattern) 3.2mm thick, 300mm x 300mm in standard colours, colour to later selection.

2.4.2 Acceptable products are
.1 Standard Execlon Imperial Texture by Armstrong World Industries as noted on Drawings. Colour to later selection.

2.5 RESILIENT BASE

2.5.1 Rubber base 100mm high, black, 3mm thick, coved, coil stock, including premoulded end stops and external corners by Johnsonite (Div. of Duramax Inc.) or equivalent. Colour black..

2.6 EXTRA STOCK

2.6.1 Provide five percent of each colour, pattern and type VCT flooring material and two percent of tile and Resilient Base material required for this project for maintenance use. Store where

directed. Extra stock to be same production run as installed materials.

2.7 SEALER AND POLISH

2.7.1 As recommended by each flooring manufacturer.

3. Execution

3.1 PREPARATION

3.1.1 Prepare subfloor smooth, level, true, sound and free of cracks, holes and other defects, in accordance with flooring manufacturer's recommendation.

3.1.2 Provide work of this Section straight and level to variation of 1:1000.

3.2 GENERAL INSTALLATION REQUIREMENTS

3.2.1 Apply adhesive uniformly using recommended trowel in accordance with flooring manufacturer's instructions. Do not spread more adhesive than can be covered by flooring before initial set takes place.

3.2.2 Terminate flooring at centerline of door in openings where adjacent floor finish is dissimilar. Provide carpet/flooring adapter at interface of carpet and work of this Section, straight and true. Where resilient flooring interface occurs at doorway, locate adapter underneath door in its closed position.

3.2.3 As installation progresses roll flooring in 2 directions with 50kg. minimum roller to ensure full adhesion.

3.3 RESILIENT TILE FLOORING

3.3.1 Lay flooring with joints parallel to building lines to produce symmetrical tile pattern. Border tiles minimum half tile width. Cut tile and fit neatly around fixed objects.

3.3.2 Provide flooring with all joints aligned, and with grain parallel to length of room.

3.4 RESILIENT BASE

3.4.1 Lay out base to keep number of joints at minimum. Base joints at maximum length available or at internal or premoulded corners. Cope internal corners. Use premoulded corner units for right angle external corners. Miter base for external corners of other angles. Wrap around toeless base at external corners.

3.4.2 Set base in adhesive tightly by using hand roller, against wall and floor surfaces.

3.4.3 Scribe and fit to door frames and other obstructions. Use premoulded end pieces at flush door frames.

3.5 CLEANING

3.5.1 Remove excess adhesive from floor, base and wall surfaces without damage.

3.5.2 Clean, seal and polish floor to flooring manufacturer's instructions.

3.6 PROTECTION

3.6.1 Protect flooring from damage until final inspection.

3.6.2 Prohibit traffic on floor for 48 hours after installation.

END OF SECTION

1. General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 QUALITY ASSURANCE

1.2.1 Employ a Subcontractor with a minimum of two years experience as an independent contractor specializing in painting.

1.3 SUBMITTALS

1.3.1 Provide paint samples for approval as required by the Consultant and in accordance with **Section 01300**.

1.3.2 Paint Schedule approval: Before ordering, submit a schedule endorsed by the paint manufacturers of all paint types, showing brands and quality identification of material to be used, for approval.

1.4 DELIVERY, STORAGE AND HANDLING

1.4.1 Provide a locked room or rooms for storage of paint materials and equipment in accordance with the requirements of the authorities having jurisdiction.

1.4.2 Keep oily rags, waste and other similar combustible materials in closed metal containers and remove at end of each day. Take precautions to avoid spontaneous combustion.

2. Products

2.1 PAINT

2.1.1 Acceptable manufacturers include:
- .1 Benjamin Moore
- .2 Glidden
- .3 Dulux
- .4 Slco
- .5 Sherwin William

2.1.2 Paint and finishing materials: Highest grade, first line epoxy paint quality of the manufacturer.

2.1.3 Gloss terms: Having the following values when tested in accordance with ASTM D523 "Test for Specular Gloss", 60 degree gloss meter method:
- .1 Flat: 5 to 20.
- .2 Eggshell: 20 to 40.
- .3 Semi-gloss: 40 to 60.
- .4 Gloss: 60+.

2.2 THINNERS AND CLEANERS

2.2.1 **Thinners, cleaners, etc.**: Type and brand recommended by the paint manufacturer, bearing identifying labels.

3. Execution

3.1 WARNING & PROTECTION

3.1.1 Post "wet paint" signs while work is in process or drying.

3.1.2 Post "no smoking" signs where volatile materials are being used.

3.2 PREPARATION - GENERAL

3.2.1 Thoroughly vacuum clean all surfaces to be painted.

3.2.2 Furnish sufficient drop cloths, shields and protective equipment to prevent spray or dropping from fouling surfaces not being painted. Covers shall be placed before painting commences and remain until completed.

3.2.3 Place cotton waste, cloths and material which may constitute a fire hazard in metal containers and remove daily from site.

3.2.4 Remove all electrical plates, surface hardware, fittings and fastenings, prior to painting operations. Store and replace in undamaged condition on completion of work in each area.

3.2.5 Mask off and protect finished surfaces and materials in a manner acceptable to the Consultant.

3.3 PREPARATION – WOOD DOOR

3.3.1 Sand finish surfaces smooth with No. 00 sandpaper. Clean soiled surfaces with an alcohol wash. Wipe off dust and other loose dirt, or vacuum clean before application of coatings.

3.3.2 Sand and fill exposed edges. Use filler compatible with finishing materials. Stain and finish door to match existing doors.

3.4 PREPARATION - METAL SURFACES

3.4.1 **Unprimed steel:** Remove weld flux, scale and rust with scrapers, wire brushes, wire power wheels, sandblasting, chipping, or grinding as may be required. Finish surfaces smooth, and remove weld flux alkali contamination with phosphoric acid solution. Wash with solvent.

3.4.2 **Primed steel:** Before touch-up of prime paint, smooth out surface irregularities; clean weld joints, bolts, nuts, and damaged areas with phosphoric acid solution; and wash with solvent.

3.5 APPLICATION

3.5.1 Do work by skilled tradesman, to manufacturer's directions. Apply paint only when dust-free conditions prevail. Results shall be even, uniform in sheen, colour and texture; free from brush or roller marks, or other defects.

3.5.2 Apply paint by brush or roller. Spray painting will not be permitted.

3.5.3 Permit paint to dry and touch up suction spots before applying succeeding coats.

3.5.4 The painting coats as specified are intended to cover surfaces perfectly. If the Contractor is of the opinion that the specified materials will not provide uniform coverage, report in writing to the Consultant, before commencing the work. If surfaces finished as specified are not covered perfectly apply additional coats at no additional cost.

3.5.5 Use same brand of paint for primer, intermediate, and finish coats.

3.5.6 Reduce materials only when indicated by paint manufacturer. Reduce only with approved thinner.

3.5.7 Remove finishing hardware, fittings and trim prior to painting and replace after painting is finished. Alternatively, use masking tape and remove tape before paint is dry.

3.6 EXISTING SURFACES

3.6.1 Paint or repaint all existing surfaces of doors and frames where noted, including "new" work which has been incorporated into the existing work and existing work which has been damaged, altered or otherwise disturbed during renovation operations.

3.6.2 Repaint surfaces or rooms adjacent to areas where alterations or renovations have been carried out and which have been damaged or otherwise disturbed by the alterations or renovations. Where such damages occur, repaint completely.

3.6.3 Remove from existing surfaces to be painted all rust, scale, oil grease, mildew, chemicals and other foreign matters.

3.6.4 If coatings on existing surfaces have failed so as to affect the proper performance or appearance of paint to be applied, or if such coatings can be easily removed, remove them and prepare the substrates properly. Dull hard or glossy surfaces by sanding, sandblasting or by other abrasive methods prior to painting.

3.6.5 Repaint surfaces entirely between changes of planes which have been incorporated into the existing work and existing work which has been damaged, altered or otherwise disturbed during renovation operations. Give existing surfaces two coats of paint or enamel over the existing finish to match the previous finish.

3.6.6 Patch and prepare existing surfaces to be firm, smooth, dry and free from loose material. Provide a continuous skim coat as necessary to achieve a suitable substrate.

3.7 INTERIOR FINISHES

3.7.1 **For gypsum board walls apply**: One coat latex primer-sealer and two coats eggshell latex enamel.

3.7.2 **For primed ferrous metal surfaces apply**: One coat alkyd zinc rich metal primer and two coats semi-gloss alkyd enamel.

3.8 CLEANING

3.8.1 Remove paint marks and spatterings, as work proceeds and on completion.

END OF SECTION

1. General

1.1 SUMMARY

A. Section Includes
Furnish, deliver and install all Toilet Partitions as indicated on the drawings and as required by actual conditions at the building. The Toilet Partitions shall include the furnishing of all necessary screws, special screws, bolts, special bolts, expansion shields and all other devices necessary for the proper installation and application of the Toilet Partitions.

B. Related Sections
Section: 10800 Washroom Accessories

1.2 REFERENCES

A. Standard
All Toilet Partitions must be scheduled, supplied and installed in accordance with: Local Building Code, CGSB (Canadian Government Specifications Board), CSA (Canadian Standards Association), ANSI (American National Standards Institute), ADA (Americans with Disabilities Act). In all cases the above references shall be taken to mean the latest edition of that particular standard including all revisions.

1.3 SUBMITTALS

A. General Requirements
Make all submittals in accordance with Section: 01300

B. Schedules
1. Submit (4) copies of detailed shop drawings for the Consultant's/Owner's review within (2) weeks of being awarded this subcontract.

C. Product Data
1. Submit (2) copies of product sheets and/or catalogue cuts, of all products listed in the shop drawings.

D. Operations and Maintenance Data
1. At completion of the job, furnish to the owner (2) copies of an Owners Operation and Maintenance Manual. The Manual shall consist of a hard cover three ring binder with the project name in the front. Include in the manual the following information: Maintenance instructions, Catalogue pages for each product, Name/Address and phone number of the Manufacturer and their Sales Agent, Copy of the final shop drawings.

1.4 QUALITY ASSURANCE

A. Substitutions
1. Manufacturers and model number listed are to establish a standard of quality. Similar items by approved manufacturers that are equal in design, function, quality and finish may be accepted upon prior written approval from the Architect/Owner.

2. All requests for acceptable substitutions must be made in writing and submitted to the Architect at least 14 days prior to tender closing. If requested, all requests for substitutions must be accompanied by product literature and actual product samples.

B. Supplier Qualifications
1. Toilet Partition shop drawings and Toilet Partitions shall be procured from a source of supply approved by the Consultant/Owner/Architect. Supplier is responsible for the complete Toilet Partition subcontract.

1.5 DELIVERY, STORAGE AND HANDLING

A. Marking and Packaging
1. Toilet Partitions must be delivered to the job site in the manufacturers' original packages and marked to correspond with the approved shop drawings.

1.6 WARRANTY

A. Written Guarantee
1. The Toilet Partition manufacturer shall guarantee all Toilet Partitions by written certification, for a period of (3) years from date of Substantial Performance of project, against any defects in design, materials and workmanship.

1.7 MAINTENANCE

A. Maintenance
1. Upon request, at completion of the project, the Toilet Partition supplier may be required to brief Owner's maintenance staff regarding proper care of Toilet Partitions, such as: required lubrications, adjustments, cleaning, etc.

2. PRODUCTS

2.1 MANUFACTURERS

A. Approved Manufacturers
Only those manufacturers names and product numbers listed herein, are approved for use on this project. All other manufacturers must request approval as per section (1.04 - A - Substitutions). Absolutely no variations from listed and preapproved items will be permitted.

Approved manufacturer(s):
1. Hadrian Manufacturing Inc.

2.2 MATERIALS

A. Construction: Doors, Panels and Pilasters shall be constructed of two sheets of panel flatness zinc-coated steel, Galvanneal ASTM A653 GR33, laminated under pressure to a honeycomb core for sound deadening and rigidity. Formed edges to be welded together and inter-locked under tension with a roll-formed oval crown locking bar, mitred, welded and ground smooth at the corners. Honeycomb to have a maximum 25mm (1") cell size.

B. Doors: Shall be 25mm (1") thick with cover sheets not less than 22-gauge (0.8mm).

C. Panels: Shall be 25mm (1") thick with cover sheets not less than 22-gauge (0.8mm).

D. Pilasters: Shall be 32mm (1.25") thick with cover sheets not less than 22-gauge (0.8mm). Pilaster tops shall be reinforced with a 20-gauge channel to create extra strength and twist-free rigidity along with minimizing damage by handling and/or shipping.

E. Headrail: Shall be 25mm (1") by 41mm (1.625") extruded anodized aluminum with double-ridge anti-grip design. Wall thickness to be 1.5mm (0.060") and shall be securely attached to wall and pilasters with manufacturer's fittings in such a way as to make a strong and rigid installation. All joints in headrails shall be made at pilaster.

F. Hardware and Fittings: All panel and pilaster brackets and all door hardware shall be chrome plated zinc die castings. Fasteners are zinc plated 12 x 1-3/4" and 12 x 5/8" TR-27 6-lobe security screws. Doors shall be equipped with a gravity type hinge mounted on the lower pilaster hinge bracket. Door hinges shall be fully concealed within the thickness of the door and adjustable to permit the door to come to rest at any position when not latched. Each door to be fitted with a bumper and a concealed latch, with face mortised flush with edge strip of door. Barrier-free doors shall include thumbturn lever to activate latch without fingertip grip application and complete with door pull on both sides of the doors. Both standard and barrier-free latches shall have a turn slot designed to allow emergency access from exterior. The combined stop and keeper shall have a 19mm (0.75") diameter bumper locked in place. Threaded upper hinge pin shall have a metal core and self-lubricating nylon sleeve to ensure smooth, quiet operation. Pilaster shoes shall be a welded one-piece design made from polished stainless steel. Two-piece shoes that can disassemble when kicked are unacceptable.

2.3 FINISH

A. All sheet metal to be thoroughly cleaned, phosphated and finished with a high performance powder coating, electrostatically applied and oven cured to provide a uniform, smooth protective finish. Color shall be as selected from Hadrian's color card.

3. Execution

3.1 EXAMINATION

A. Site Preparation
1. The contractor must examine all site conditions that would prevent the proper application and installation of Toilet Partitions. Any defect must be immediately identified and corrected, prior to the installation of the Toilet Partitions.

3.2 INSTALLATION

A. Mounting Locations
1. All Toilet Partitions must be mounted according Manufacturers standard locations and those specified on the drawings.

3.3 FIELD QUALITY CONTROL

A. Inspection
1. After installation has been completed, provide for a site inspection of all Toilet Partitions to determine that all items have been supplied and installed as per the enclosed details. Also, check the operation and adjustment of all Toilet Partitions. Any discrepancies, or malfunctioning product, must be reported to the Architect immediately.

3.4 ADJUSTMENT AND CLEANING

A. Final Preparation
1. At final completion, Toilet Partitions shall be left clean and free from disfigurement. Make all final adjustments. Where Toilet Partitions are found defective, repair or replace or otherwise correct as directed.

END OF SECTION

1 General

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to requirements of Division 1.

1.2 SUBMITTALS

1.2.1 **Shop drawings**: Submit the shop drawings or catalogue illustrations in accordance with **Section 01300**. Indicate the following:
- .1 system arrangement, size, description, and component sizes
- .2 base material, surface finish
- .3 method of assembly and anchorage,
- .4 locations of exposed fasteners,
- .5 hardware and locks and attachment devices.

2 Products

2.1 MATERIALS

2.1.1 **Sheet steel**: Commercial quality to ASTM A526, galvanized.

2.1.2 **Stainless steel**: ASTM A167, Type 304.

2.1.3 **Fasteners**: Concealed screws and bolts hot dip galvanized, exposed fasteners to match face of unit. Expansion shields fibre, lead or rubber as recommended by accessory manufacturer for component and its intended use.

2.1.4 Supply for installation under other Sections, mounting devices and reinforcement required to be built-in for support of grab bars and imposed loads. Be responsible for giving proper notice to other Sections and supplying such reinforcement when required by other Sections for building in.

2.2 FINISHES

2.2.1 **Chrome and nickel plating**: ASTM B456, satin or polished finish as indicated.

2.2.2 **Stainless steel**: #4, brushed finish.

2.2.3 Manufacturer's or brand names on face of units not acceptable.

2.3 FABRICATION

2.3.1 Weld and grind joints of fabricated components flush and smooth. Use mechanical fasteners only where approved.

2.3.2 Wherever possible form exposed surfaces from one sheet of stock, free of joints.

2.3.3 Brake form sheet metal work with 1/16" radius bends.

2.3.4 Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.

2.3.5 Back paint components where contact is made with building finishes to prevent electrolysis.

2.3.6 Hot dip galvanize concealed ferrous metal anchors and fastening devices to CSA G164.

2.3.7 Shop assemble components and package complete with anchors and fittings.

2.3.8 Deliver inserts and rough-in frames to job site at appropriate time for building-in. Provide templates, details and instructions for building in anchors and inserts.

2.3.9 Provide steel anchor plates and components for installation on studding and building framing.

2.4 ACCESSORIES

2.4.1 **Surface Mounted Coat Hook:** ASI 7340, Satin finish stainless steel, concealed, stainless steel mounting bracket, secured to wall plate with a stainless steel setscrew, or equal.

2.4.1 **Frame mirror with shelf,** ASI 0537 1830, type 430 Satin finish, Stainless Steel, ADS compliant.

2.5. GRAB BARS

2.5.1 Stainless steel, capable of resisting a minimum load of 250 lb. vertically or horizontally, 1-1/2" outside diameter, peened grip tube welded to flanges, concealed mounting, with anchor devices to suit partition construction, OBC compliant with 2" wall clearance by Bobrick, or ASI, for each compliant toilet (Total 3 "L" shaped 30" x 30" and 3" - 24".)

2.6. WASTE RECEPTACLE

2.6.1 ASI Model #0458 Semi-Recessed Stainless Steel receptacle

2.7. NAPKIN DISPOSAL

2.7.1 ASI Model #0473 Recessed Stainless Steel Sanitary Napkin Disposal receptacle.

2.8. ITEMS SUPPLIED BY OWNER

2.8.1 Installed as part of Contract:

- Paper Towel Dispenser
- Toilet Paper Dispenser
- Electric Hand Dryer
- Soap Dispenser

3 Execution

3.1 INSTALLATION

3.1.1 Provide and secure accessories rigidly in place.

.1 Hollow masonry units or existing plaster or gypsum board: Use toggle bolts drilled into cell/wall cavity.

.2 Solid masonry, marble, stone or concrete: Use bolt with lead expansion sleeve set into drilled hole.

3.2.1 Provide grab bars on built-in anchors provided by bar manufacturer.

3.1.3 Use tamper proof screws/bolts for fasteners.

END OF SECTION