

SPECIFICATIONS
FOR THE
CONSEIL SCOLAIRE CATHOLIQUE MONAVENIR
DOOR AND FRAME REPLACEMENT
AT
ÉCOLE SECONDAIRE CATHOLIQUE SAINTE-TRINITÉ, OAKVILLE



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PROJECT: # 2410

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SPECIFICATION

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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 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 - \$7,000.00 (Three Thousand Dollars)

- \$3,000.00 for Miscellaneous unknown Site Conditions
- \$2,000.00 for Overhead Door Electrical Connections
- \$2,000.00 for Hardware consultant final inspection

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 Building.

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 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.
- 1.6.3 Maintain fire protection as required by jurisdictional authorities.
- 1.6.4 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 door frames and glazed screens.
- b) Removal of existing doors scheduled to be replaced.

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, life safety and security 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.

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 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 RELATED SECTIONS

1.2.1 Metal Doors and Frames Section 08100

1.2.2 Aluminium Doors Section 08150

1.2.3 Glass and Glazing Section 08360

1.3 SUMMARY

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

1.4 QUALITY ASSURANCE

1.4.1 **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.

1.4.2 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.

1.5 SUBMITTALS

1.5.1 **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

1.6 DELIVERY, STORAGE, AND HANDLING

1.6.1 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. Allow for special colours as selected 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.

2.5 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 and adjacent surfaces.

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 Non-rated, insulated exterior steel doors and frames.
- .2 Prepare frames with continuous bar reinforcement at head of frames for door closures as shown on Door 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 frames and doors numbered 12 to receive existing electrical wiring and control switches for new handicap door operator as supplied and installed under Section 08710 Finish Hardware.
- .5 Prepare frames and doors, numbered 8 and 15 for Intrusion Alarms, and Card Access.

1.2 RELATED WORK

- 1.2.1 Miscellaneous Sealant Section 07900
- 1.2.2 Hardware Section 08200
- 1.2.3 Glazing Section 08360
- 1.2.4 Finish Hardware Section 08710

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 **Exterior doors:** Insulated Hollow metal, vertically stiffened with 20 gauge steel ribs at 6" o.c., voids filled with semi-rigid fibrous insulation, density 1.5 lb/cu ft.

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. Provide flush steel top edge on exterior doors.

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

PART 1 - GENERAL

1.1 General

Division One, General Requirements, is part of this section and shall apply as if repeated here.

1.2 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 The supply and instillation of all factory assembled, clear anodized and Duranar XL finished, extruded aluminum
- .2 Supply and installation of aluminum doors and sub frames.
- .3 Prepare frames and doors numbered 1 and 3 to receive existing electrical wiring and control switches for new handicap door operators supplied and installed under Section 087210.
- .4 Prepare Aluminum Frames and Doors and re-connect for Intrusion Alarms, and Card Access.

1.3 Related Work

- .1 Caulking between frames and other building components: Section 07900
- .2 Barrier Free Door Operators Section 08720

1.4 Quality Assurance

- .1 Qualification: The work of this section shall be designed, fabricated and installed by a company who has a minimum of 10 years experience in the successful completion of projects of a similar size, design and quality. Having adequate skilled personnel to complete the work in an efficient and very best workmanlike manner.

1.5 Shop Drawings

- .1 Submit shop drawings of new doors showing opening clearly indicating materials and details for head, jamb and sill, profiles of components and elevations of units, structural or reinforcing members, anchorage details, description of related components and exposed finishes and fasteners, all in accordance with Section 01300.
- .2 Quality Assurance/Control Submittals, Test Reports: Submit certified test reports showing compliance with specified performance characteristics.

1.6 Maintenance

- .1 Provide maintenance data for cleaning and maintenance of aluminum finishes for incorporation into maintenance manual specified in Section 01730.

1.7 Protection

- .1 Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- .2 Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- .3 Storage and Protection: Store materials protected from exposure to harmful weather conditions. Handle storefront material and components to avoid damage. Protect storefront material against damage from elements, construction activities, and other hazards before, during and after storefront installation.

1.8 Warranty

- .1 Provide written warranty stating that aluminum doors are guaranteed against defects and malfunction under normal usage for a period of ten years from date of completion.

PART 2 - PRODUCTS

2.1 Materials

- .1 Exterior, Aluminum Doors shall be Alumicor Canadiana Herculean. Entrance Doors, series 800A with 8" center rails prepared for insulating glass. Provide all stops and adapters for complete installation. (See door and hardware schedule)
- .2 Interior, Aluminum Doors shall be Alumicor Canadiana Herculean. Entrance doors series 800A with 8" centre rails, prepared for single glass. (See door and hardware schedule)
- .3 The hardware for the aluminum doors shall be as supplied under the Hardware Schedule 08720, and installed by this Contractor all as indicated on the Door and Hardware Schedule.
- .4 Extrusions shall be 6063 T54 alloy, thresholds of 6061-T6 Alloy.
- .5 Formed aluminum components shall be sheet of alloy and temper suitable for their purpose and finish.
- .6 Glass: As indicated in Section 08800.
- .7 Fasteners shall be 300 series stainless steel or 400 series stainless steel cadmium plated and of sufficient size and quantity to perform their intended function.

- .8 Weathering and glazing gaskets shall be extruded, black, closed cell or dense elastomer of durometer appropriate to the function. Exterior glazing shall be Tremco VISIONstrip® co-extruded EPDM gasket with integral glazing tape.
- .9 Aluminum door finishes:
 - a) Exterior Aluminum Doors shall be Duranar XL-UC51602- XL Dark Bronze # 313.
 - b) Interior Aluminum Doors shall be clear anodized to Can #A440-M90 class 2, (.0004") thick.
- .10 Door sweep: To suit site conditions.
- .11 Weatherstripping: Mohair pile Schlegels inserted in Kyed grooves.
- .12 Aluminum threshold: to suit site conditions.
- .13 Removable mullions must be equipped for keyed cylinder supplied under Hardware Schedule 08720.
- .14 Isolation coating: alkali resistant bituminous paint; in accordance with Section 07900.
- .15 Sealants: in accordance with Section 07900 colour selected by architect.

2.2 Fabrication

- .1 Fabricate doors from extrusions of size and shape shown on the drawings and existing aluminum curtain wall framing.
- .2 All joints shall be accurately machined, assembled and sealed to provide neat weathertight joints.
- .3 Manufacturer's nameplates on frames and screens are not permitted.

PART 3 – EXECUTION

3.1 Preparation

- .1 Protect adjacent surfaces from damage resulting from work under this specification.

3.2 Installation

- .1 Install new doors and sub-frames in accordance with manufacturer's instructions, by manufacturer's own staff.

- 3.3 Clean Up** Clean glass at factory. Final cleaning of glass to remove job site soiling shall be the responsibility of the Owner.

Leave surfaces reasonably clean, free from sealants, caulking or other foreign material.

Removal surplus materials and debris resulting from work of this Trade.

3.4 Operation and Maintenance Data

.1 Upon completion of installation, supply standard parts service kits and service manual. Arrange with and demonstrate to building maintenance staff, cleaning, reglazing and general maintenance procedures.

End of Section 08150

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Insulated Sectional Overhead Doors, existing and new.

1.2 RELATED SECTIONS

- A. Section 01210 – Cash Allowances: Electrical connection
- B. Section 07900 - Joint Sealers: Perimeter sealant and backup materials.
- C. Section 09900 - Paints and Coatings: Field painting.

1.3 REFERENCES

- A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Single-Source Responsibility: Provide doors, and accessories from one manufacturer.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Installation methods to suit existing frame.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Operation and Maintenance Data.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.

- C. Store materials in a dry, ventilated weathertight location.

1.8 WARRANTY

- A. Warranty: Manufacturer's limited door and operators System warranty for 10 years against delamination of polystyrene foam from steel face and all other components for 1 year and covered under General Conditions of Contract.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, Junior's Garage Doors Inc., for local dealer at Tel 905-552-0312.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01300.

2.2 INSULATED SECTIONAL OVERHEAD DOOR No. 1.1 (Refer to Door Schedule)

- A. Insulated Steel Sectional Overhead Doors: 470 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Rigid steel construction; fully insulated, continuous on the outside face with continuous steel backing on the inside face. Fabricated with steel end stiles and tongue and groove sections.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 26 gauge, hot-dipped galvanized with an embossed simulated wood grain texture, pre-finished.
 - d. Interior Steel: 29 gauge, hot-dipped galvanized
 - e. Springs:
 - 1) 10,000 cycles.
 - f. Insulation: Polystyrene.
 - g. Thermal Values:
 - 1) Polystyrene - R-value of 9.83; U-value of 0.102.
 - 2. Finish and Color: Two coat baked-on polyester. Color as follows:
 - a. White (To match existing)
 - 3. Windload Design: Provide to meet the Design/Performance requirements based on Ontario Building Code requirements.
 - 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
 - 5. Electric Door Operator: Belt Lift Master, Model 8150 Complete with 2 remote openers, wi-fi ready and emergency disconnecter.
 - 6. Weatherstripping: (replace existing)
 - a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
 8. Refer to Door type 4, drawing A500 for size and overall elevation.
- B. Existing insulated sectional overhead door No. 10 (Refer to door Schedule)
1. Lock
 - a) Remove existing door locking mechanism.
 - b) Install interior mounted slide lock.
 2. Weatherstripping & adjustments
 - a) Replace existing weatherstripping.
 - b) Service and adjust door operation.
- C. Existing insulated sectional overhead No. 14 (Refer to door Schedule)
1. Weatherstripping & adjusting
 - a) Replace existing weatherstripping.
 - b) Service and adjust door operation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Opening are s existing, notify Architect of unsatisfactory existing conditions and preparation before proceeding.

3.2 INSTALLATION

- A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- C. Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.

3.3 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
- B. Clean doors according to manufacturer's instructions.

- C. Remove temporary labels and visible markings. Do not remove care and maintenance label required to maintain warranty.

3.4 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION

1. General

1.1 RELATED WORK SPECIFIED ELSEWHERE

- 1.1.1 Metal Doors and Frames Section 08100
- 1.1.2 Aluminum Doors Section 08150

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.
- 1.5.2 Adjust existing hardware on all doors or Door Schedule for proper operation.

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 08720 Door Hardware.

END OF SECTION

DOOR HARDWARE

08720

PROJECT:  **École secondaire catholique**
Sainte-Trinité
2600 Grand Oak Trail
Oakville, ON

ARCHITECT: **DENIS GERALD RIOUX**
ARCHITECT
63 Heman Street
Toronto, ON,

Prepared By: Crystal Van Stralen
Date: February 11, 2025
Revised: February 13, 2025

Architectural Hardware Finishes

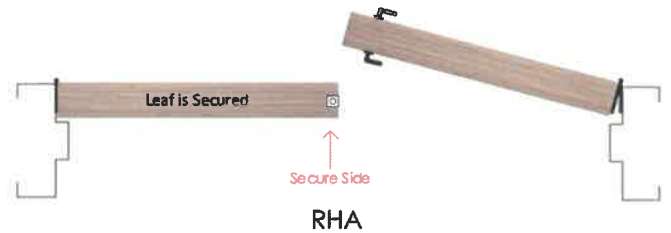
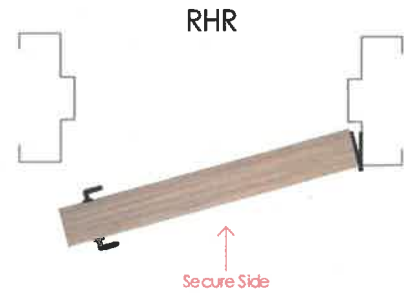
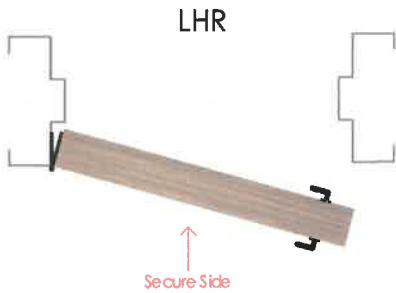
	Steel	Stainless Steel	Brass/Bronze	Aluminum	Paint/Powder Coat	US/CAN
Clear Anodized				628	689	US28
Satin Nickel	646		619	670		US15
Polished Nickel	645		618	669		US14
Satin Stainless Steel		630				US32D
Polished Stainless Steel		629				US32
Satin Chrome	652		626	702		US26D
Polished Chrome	651		625	672		US26
Satin Brass	633		606	667	678	US4
Polished Brass	632		605	666	677	US5
Satin Bronze	639		612	668	680	US10
Oil Rubbed Bronze	640		613	703	695	US10B
Flat Black / Anodized Black	631		622	671	693	US19

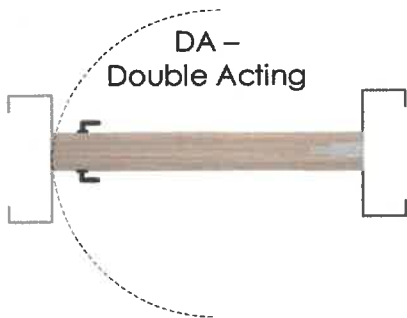
Door Handing's

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.





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
Continuous Hinge	112HD	Ives		
Butt Hinge	3CB1 Series	Ives		
Power Transfer	EPT-10	Von Duprin		
Removable Mullion	5654	Von Duprin		
Exit Device	98 Series	Von Duprin		
Door Pull	CBH 6039	CBH		
Door Contact	7766	Schlage		
Overhead Stop	100 Series	Glynn Johnson		
Closer	4040XP	LCN		
Coordinator	COR Series	Sargent		
Operator	SW200i Series	Besam		
Kickplate	CBH 903	CBH		
Floor Stop	CBH 113	CBH		
Threshold	CT-10	KN Crowder		
Weatherstrip	W-13	KN Crowder		
Sweep	W-24S	KN Crowder		
Surface Mount Box	CM-75SB-BK	Camden		
Keyswitch	CM-180	Camden		
Logic Relay	CX-33	Camden		

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:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 2 1/4"	STC Rating None
Door Material:	IC-ALD	Frame Material:	ALF	Fire Rating None

1 Total Openings						
1	Door#	1	Location:	Exterior	From Vestibule 135	Handing: LHRA/RHRA

By Hardware Supplier					
2	Continuous Hinge	112HD x EPT	628 / US28 / Clear Anodized	Ives	
2	Power Transfer	EPT-10	689 / US28 / Painted Aluminum	Von Duprin	
1	Removable Mullion	5654 x CYL (Keyed Alike)	628 / US28 / Clear Anodized	Von Duprin	
1	Elec. Exit Device	QEL-RX-98NL-OP-4'-INS-2-RHR-AL (Keyed Alike)	630 / US32D / Satin Stainless Steel	Von Duprin	
1	Elec. Exit Device	QEL-RX-98EO-4'-INS-2-LHR-AL	630 / US32D / Satin Stainless Steel	Von Duprin	
2	Door Pull	CBH 6039-1 1/4" x 72" x #1 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Door Contact	7766	Grey	Schlage	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
1	Weatherstrip	By Aluminum Door Provider			
2	Door Sweeps	By Aluminum Door Provider			
1	Threshold	By Aluminum Door Provider			
By Automatic Operator Supplier					
1	Auto Operator (Pair)	SW200i Dual x Push Arm x 79" header (Paired Unit)	628 / US28 / Clear Anodized	Besam	
2	Actuators	Existing to Remain/Reuse			
1	Keyswitch	CM-180/22 (Keyed Alike)	630 / US32D / Satin Stainless Steel	Camden	
1	Logic Relay	CX-33		Camden	
By Security Supplier					
1	Card Reader	Existing to Remain/Reintegrate			
X	REX Sensor	Built into Exit Device – Security to Wire			

1	Access Controller	Existing to Remain/Reintegrate		
1	Power Supply	Existing to Remain/Reintegrate		
By Owner				
3	Permanent Cylinder	Permanent MEDECO Cylinders by ESCST		

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.

Theory of Operation:

- Door is normally closed and unlocked during operational hours by access control system.
- Door is normally closed and locked during non-operational hours.
- Emergency key in exit device cylinder trim momentarily unlocks door.
- Keyswitch controls hold open function and cuts power to auto operator when doors are required for manual operation.
- To enter during operational hours, press/wave exterior actuator or pull handle to open door(s).
- To enter during non-operational hours, present valid credential, then press/wave exterior actuator or pull handle to open door(s).
- To exit press interior actuator or push exit device push pad to open door(s).
- In the event of fire alarm or loss of power, door(s) remain locked.
- Free egress always.

.....End of Heading.....

Heading# 2

Opening Information					
Opening Type:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 2 1/4"	STC Rating	None
Door Material:	IC-ALD	Frame Material:	ALF	Fire Rating	None

1 Total Openings								
1	Door#	2	Location:	Exterior	From	Vestibule 135	Handling:	RHRA

By Hardware Supplier

2	Continuous Hinge	112HD	628 / US28 / Clear Anodized	Ives	
1	Fixed Mullion	By Aluminum Frame Provider			
2	Exit Device	CD-98EO-4'-INS-2-LHR-AL (Keyed Alike)	630 / US32D / Satin Stainless Steel	Von Duprin	
2	Door Pull	CBH 6039-1 1/4" x 72" x #1 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Door Contact	7766	Grey	Schlage	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
2	Closer	4040XP x EDA x ST1358	689 / US28 / Painted Aluminum	LCN	
2	Mounting Plate	4040XP-18	689 / US28 / Painted Aluminum	LCN	
2	Blade Stop Spacer	4040XP-61	689 / US28 / Painted Aluminum	LCN	
1	Weatherstrip	By Aluminum Door Provider			
2	Door Sweeps	By Aluminum Door Provider			
1	Threshold	By Aluminum Door Provider			

By Owner

2	Permanent Cylinder	Permanent MEDECO Cylinders by ESCST			
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.....End of Heading.....



Heading# 3

Opening Information

Opening Type:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 1 3/4"	STC Rating	None
Door Material:	ALD	Frame Material:	ALF	Fire Rating	None

1 Total Openings

1	Door#	3	Location:	Vestibule 135	From	Entry Hall 136	Handing:	LHRA/RHRA
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By Hardware Supplier

2	Continuous Hinge	112HD	628 / US28 / Clear Anodized	Ives	
2	Door Pull Set (BTB)	CBH 6039-1 1/4" x 72" x #3 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
1	Gasketing	By Aluminum Door Provider			
2	Door Sweeps	By Aluminum Door Provider			
1	Astragal	By Aluminum Door Provider			

By Automatic Operator Supplier

1	Auto Operator (Pair)	SW200i Dual x Push Arm x 79" header (Paired Unit)	628 / US28 / Clear Anodized	Besam	
2	Actuators	Existing to Remain/Reuse			

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.....

Heading# 4






Opening Information

Opening Type:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 1 ¾"	STC Rating	None
Door Material:	ALD	Frame Material:	ALF	Fire Rating	None

1 Total Openings

1	Door#	4	Location:	Vestibule 135	From	Entry Hall 136	Handing:	LHRA/RHRA
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By Hardware Supplier

2	Continuous Hinge	112HD x EPT	628 / US28 / Clear Anodized	Ives	
1	Fixed Mullion	By Aluminum Frame Provider			
2	Door Pull Set (BTB)	CBH 6039-1 ¼" x 72" x #3 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
2	Closer	4040XP x EDA x ST1358	689 / US28 / Painted Aluminum	LCN	
2	Mounting Plate	4040XP-18	689 / US28 / Painted Aluminum	LCN	
2	Gasketing	By Aluminum Door Provider			
2	Door Sweeps	By Aluminum Door Provider			

.....End of Heading.....

Heading# 5

Opening Information

Opening Type:	Existing	Opening Size:		STC Rating	None
Door Material:	Existing	Frame Material:	Existing	Fire Rating	None

1 Total Openings							
1	Door#	5	Location:	Exterior	From	Library 134	Handing:
1	Door#	6	Location:	Exterior	From	Gymnasium 132	Handing:
1	Door#	7	Location:	Exterior	From	Gymnasium 132	Handing:
1	Door#	9	Location:	Exterior	From	Corridor 130-2	Handing:
1	Door#	16	Location:	Exterior	From	Stair A 81-A	Handing:
1	Door#	17	Location:	Exterior	From	Resources 100-1	Handing:
1	Door#	18	Location:	Resources 100-1	To	Entry Hall 136	Handing:

Notes:

- Repaint/refinish. See Architectural plans for details.

.....End of Heading.....

Heading# 6

Opening Information

Opening Type:	Pair	Opening Size:	2- 2'-6" x 7'-0" x 1 3/4"	STC Rating	None
Door Material:	IHMD	Frame Material:	HMF	Fire Rating	None

1 Total Openings

1	Door#	8	Location:	Exterior	From	Gymnasium Storage 132-2	Handing:	RHRA
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By Hardware Supplier

6	Butt Hinges	3CB1 4 1/2" x 4" NRP	630 / US32D / Satin Stainless Steel	Ives	
2	Flush Bolt	FB457	630 / US32D / Satin Stainless Steel	Ives	
1	Dust Proof Strike	DP2	652 / US26D / Satin Chrome	Ives	
1	Storeroom Mortise Lock	L9080-P6-07A (Keyed Alike)	630 / US32D / Satin Stainless Steel	Schlage	
2	Overhead Stop	103S	689 / US28 / Painted Aluminum	Glynn Johnson	
1	Closer	4040XP x EDA	626 / US26D / Satin Chrome	LCN	
2	Kickplate	CBH 903 - 8" x 28 1/2" x 3M Tape	630 / US32D / Satin Stainless Steel	CBH	
1	Weatherstrip	W-13 x 1 @ 5'-0" & 2 @ 7'-0"	628 / US28 / Clear Anodized	KN Crowder	
2	Door Sweep	W-24S x 30"	628 / US28 / Clear Anodized	KN Crowder	
1	Threshold	CT-10 x 5'-0"	719 Milled Aluminum	KN Crowder	
1	Z-Astragal	By Hollow Metal Door Provider			

By Owner

1	Permanent Cylinder	Permanent MEDECO Cylinder by ESCST			
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.....End of Heading.....

Heading# 7

Opening Information				
Opening Type:	Overhead	Opening Size:		STC Rating None
Door Material:		Frame Material:		Fire Rating None

1	Total Openings							
1	Door#	10	Location:	Exterior	From	Exterior Storage	Handing:	OHD
1	Door#	11	Location:	Exterior	From	Exterior Storage	Handing:	OHD
1	Door#	14	Location:	Exterior	From	Exterior Storage	Handing:	OHD

Notes:

- Overhead doors, frames, and hardware by overhead door provider.

.....End of Heading.....



Heading# 8

Opening Information

Opening Type:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 1 ¾"	STC Rating	None
Door Material:	IHMD	Frame Material:	HMF	Fire Rating	None

1 Total Openings

1 Door#	12	Location:	Exterior	From	Vestibule 129A	Handing:	RHRA
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By Hardware Supplier

6	Butt Hinges	3CB1 5" x 4 ½" NRP	630 / US32D / Satin Stainless Steel	Ives	
1	Power Transfer	EPT-10	689 / US28 / Painted Aluminum	Von Duprin	
1	Removable Mullion	4954 x CYL (Keyed Alike)	Grey	Von Duprin	
1	Elec. Exit Device	QEL-RX-98NL-OP-INS-2-AL (Keyed Alike)	630 / US32D / Satin Stainless Steel	Von Duprin	
1	Exit Device	CD-98EO-INS-2-AL (Keyed Alike)	630 / US32D / Satin Stainless Steel	Von Duprin	
2	Door Pull	CBH 6039-1 ¼" x 72" x #1 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Door Contact	7766	Grey	Schlage	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
2	Kickplate	CBH 903 – 8" x 36 ½" x 3M Tape	630 / US32D / Satin Stainless Steel	CBH	
2	Weatherstrip	W-13 x 1 @ 3'-2" & 2 @ 7'-0"	628 / US28 / Clear Anodized	KN Crowder	
2	Door Sweep	W-24S x 38"	628 / US28 / Clear Anodized	KN Crowder	
1	Threshold	CT-10 x 6'-4"	719 Milled Aluminum	KN Crowder	

By Automatic Operator Supplier

1	Auto Operator	SW200i x Push Arm x 79" header	628 / US28 / Clear Anodized	Besam	
2	Actuators	Existing to Remain/Reuse			
1	Keyswitch	CM-180/22	630 / US32D / Satin Stainless Steel	Camden	
1	Logic Relay	CX-33		Camden	

By Security Supplier

1	Card Reader	Existing to Remain/Reintegrate			
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X	REX Sensor	Built into Exit Device – Security to Wire			
1	Access Controller	Existing to Remain/Reintegrate			
1	Power Supply	Existing to Remain/Reintegrate			
By Owner					
4	Permanent Cylinder	Permanent MEDECO Cylinders by ESCST			

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.

Theory of Operation:

- Door is normally closed and unlocked during operational hours by access control system.
- Door is normally closed and locked during non-operational hours.
- Emergency key in exit device cylinder trim momentarily unlocks door.
- Keyswitch controls hold open function and cuts power to auto operator when doors are required for manual operation.
- To enter during operational hours, press/wave exterior actuator or pull handle to open door(s).
- To enter during non-operational hours, present valid credential, then press/wave exterior actuator or pull handle to open door(s).
- To exit press interior actuator or push exit device push pad to open door(s).
- In the event of fire alarm or loss of power, door(s) remain locked.
- Free egress always.

.....End of Heading.....



Heading#

9

Opening Information

Opening Type:	Pair	Opening Size:	2- 3'-2" x 7'-0" x 1 3/4"	STC Rating	None
Door Material:	HMD	Frame Material:	HMF	Fire Rating	None

1 Total Openings

1 Door#	13	Location:	Vestibule 129A	From	Corridor 129	Handing:	RHRA
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By Hardware Supplier

6	Butt Hinges	3CB1 5" x 4 1/2"	630 / US32D / Satin Stainless Steel	Ives	
2	Door Pull Set (BTB)	CBH 6039-1 1/4" x 72" x #3 MTG	630 / US32D / Satin Stainless Steel	CBH	
2	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
2	Kickplate	CBH 903 - 8" x 36 1/2" x 3M Tape	630 / US32D / Satin Stainless Steel	CBH	
2	Weatherstrip	W-13 x 1 @ 3'-2" & 2 @ 7'-0"	628 / US28 / Clear Anodized	KN Crowder	
2	Door Sweep	W-24S x 38"	628 / US28 / Clear Anodized	KN Crowder	
1	Threshold	CT-10 x 6'-4"	719 Milled Aluminum	KN Crowder	
1	Astragal	W-25 x 7'-0"	628 / US28 / Clear Anodized	KN Crowder	

By Automatic Operator Supplier

1	Auto Operator	SW200i x Push Arm x 79" header	628 / US28 / Clear Anodized	Besam	
2	Actuators	Existing to Remain/Reuse			

By Owner

1	Permanent Cylinder	Permanent Cylinders by ESCST			
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.....End of Heading.....

Heading# 10

Opening Information

Opening Type:	Single	Opening Size:	3'-0" x 7'-0" x 1 ¾"	STC Rating	None
Door Material:	IHMD	Frame Material:	HMF	Fire Rating	None

1 Total Openings

1	Door#	15	Location:	Exterior	From	Electrical Room 125	Handing:	RHR
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By Hardware Supplier

3	Butt Hinges	3CB1 5" x 4 ½" NRP	630 / US32D / Satin Stainless Steel	Ives	
1	Exit Device	98EO-3'	626 / US26D / Satin Chrome	Von Duprin	
1	Door Contact	7766	Grey	Schlage	
1	Overhead Stop	104S	630 / US32D / Satin Stainless Steel	Glynn Johnson	
2	Closer	4040XP x EDA	689 / US28 / Painted Aluminum	LCN	
1	Kickplate	CBH 903 – 8" x 34 ½" x 3M Tape	630 / US32D / Satin Stainless Steel	CBH	
1	Weatherstrip	W-13 x 1 @ 3'-0" & 2 @ 7'-0"	628 / US28 / Clear Anodized	KN Crowder	
1	Door Sweep	W-24S x 36"	628 / US28 / Clear Anodized	KN Crowder	
1	Threshold	CT-10 x 3'-0"	719 Milled Aluminum	KN Crowder	

.....End of Heading.....

END OF SCHEDULE

PART 1 - GENERAL

1.1 General

Division One, General Requirements, is part of this section and shall apply as if repeated here.

1.2 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:

The work shall include the following but not be limited to:

- .1 Glass or other glazing for all steel doors and frames, and any similar or supplementary work shown on the drawings, for and exterior units, including plain and double glazed insulated units.

1.3 Related Work

- .1 Steel Doors and Frames Section 08100
- .2 Aluminum & Door Section 08150

- 1.4 **Dimensions** .1 The Contractor shall carefully check all frame and door openings to be glazed in the field to determine all opening sizes; do not cut the glass until dimensions have been verified.

- 1.5 **Glass Breakage** .1 The Contractor shall be responsible for all glass broken or unsuitable because of faulty setting, manufacturer's errors or product failure. Glass broken by others during construction shall be replaced by the glazing sub-contractor.

- 1.6 **Environmental Conditions** .1 Glaze with compounds, sealants or tapes only when glazing surfaces are at temperatures over 45°F (7.5°C), and when positive that no moisture is accumulating on them from frost, rain, mist, or condensation.

- 1.7 **Glass Design** .1 This contractor shall be responsible for proper glass thickness design as required by Code Report such discrepancies in glass design and thickness immediately to the Architect during tendering.

- 1.8 **Warranty** .1 Double glazed insulated units to be warranted for 5 years beyond substantial performance of the work.

PART 2 - PRODUCTS

- 2.1 Glass Materials**
- .1 Polished float glass to CAN2-12.3M and amendments; glazing "A" quality, thickness and tint as indicated.
 - .2 Sealant compound: multicomponent, chemical curing to CAN2-19.24 M80 type 2, class A, black colour.
 - .3 Glazing tape: preformed butyl tape, Tremco 440 black colour, 5mm thick x 10mm wide.
 - .4 Setting blocks: neoprene, Shore "A" durometer hardness 80, 75mm long x 2.4mm thick x 5mm high.
 - .5 Spacer shims: neoprene, Shore "A" durometer hardness 70, 75mm long x 2.4mm thick x 5mm high.
 - .6 Primer-sealers and cleaners: to glass manufacture's standard.
 - .7 Low E glass shall be L.O.F. or approved equivalent pyrolytic coating, applied to number 3 surface of insulated glazing units.
- 2.2 Fabrication**
- .1 All exterior glass in Hollow Metal and aluminum doors:
 - Double Glazed Insulated Units Hermetically Sealed
 - Exterior Sheet: 6mm thick, medium grey, tempered
 - Air Space: 13mm
 - Interior Sheet: 6mm thick, clear, low – 'E', tempered

PART 3 - EXECUTION

3.1 Examination

- .1 All steel shall be properly primed by others before glazing, and primer must be hard and dry. All openings must be free from moisture, frost, rust, dirt, plaster, cement, oil or grease.
- .2 The Glazing sub-contractor shall examine all openings to be glazed and shall report any conditions which may affect the work of this trade before commencing. Commencement of work will be construed as an acceptance of existing conditions.
- .3 Glazing compound shall be neatly run in straight line parallel with glazing rebate. Corners shall be carefully made.
- .4 All glass shall be back and face bedded in glazing compound with 3mm (1/8") clearance on all sides. Glass shall be set on setting blocks as required, with equal bearing on the entire width of plane. Convex side of glass shall be on exterior.

- .5 Insert spacer shims to centre glass in space. Place shims at 100mm o.c. Keep 6mm below sight line.
 - .6 Install removable stops, without displacing tape or sealant.
 - .7 Apply cap bead of sealant, at exterior void, in a uniform and level line, flush with sight line, tooled or wiped with solvent to smooth appearance.
- 3.5 Cleaning**
- .1 Immediately remove all excess sealant and compound and droppings from finished surfaces.
 - .2 Remove labels from glass at completion of Work; clean all glass before Final Inspection.

End of Section

1. General

1.1 RELATED WORK SPECIFIED ELSEWHERE

1.1.1 Miscellaneous Sealants Section 07900

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 Exterior Soffit Board: 16mm DensGlass sheathing, glass matte panels to ASTM C1177.
- 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 Impact Resistant Gypsum Board: Sheetrock AR by CGC, 16mm panels with Fire Code C core on new gypsum board partitions.
- 2.1.12 Batt Insulation: CSA A101 Type 1 mineral wool batts, 3" (75mm) minimum thickness, minimum density 3 lbs/cubic foot by Roxul Inc or equal.
- 2.1.13 Screws: ASTM C 954-93 type 'S' self-drilling, self-tapping steel drywall screws for use with power operated driver.
- 2.1.14 Joint treatment materials: as recommended by manufacturer of the gypsum board.
- 2.1.15 Acoustical Insulation: "Noise Stop" as manufactured by Owens-Corning Fibreglas Canada Ltd., or approved alternate.
- 2.1.16 Sealant (acoustical): Tremco acoustical sealant as manufactured by the Tremco Manufacturing Company (Canada) Limited.
- 2.1.17 Sealant (fire resistant): PRC Chemicals PR 855, or approved alternate.
- 2.1.18 Foam tape: foamed vinyl, self adhesive, 6 mm thick.
- 2.1.19 Exterior Texture Finish: as recommended by soffit board manufacturer.

3. Execution

3.1 LOCATION

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

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.

3.3.5 No back to back openings for outlets may be made in acoustical wall within 900 mm c.c.

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 600 mm long horizontal 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.

- .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

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 - METAL SURFACES

3.3.1 **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.

3.3.2 **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.

3.4 APPLICATION

3.4.1 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.

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

3.4.3 Do not paint exterior surfaces during windy or rainy weather, or when temperature is below 10 degrees C, or when surfaces are damp or exposed to hot sun. Interior temperatures shall be minimum 15 degrees C.

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

3.4.5 Tint various coats of multiple coat work to distinguish between coats.

3.4.6 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.

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

- 3.4.8 Reduce materials only when indicated by paint manufacturer. Reduce only with approved thinner.
- 3.4.9 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.
- 3.4.10 Paint both sides and edges of plywood backboards for equipment before installation. Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.
- 3.5 EXISTING SURFACES**
- 3.5.1 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.
- 3.5.2 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.
- 3.5.3 Remove from existing surfaces to be painted all rust, scale, oil grease, mildew, chemicals and other foreign matters.
- 3.5.4 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.
- 3.5.5 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.
- 3.5.6 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.
- 3.6 INTERIOR FINISHES**
- 3.6.1 **For gypsum board ceilings apply:** One coat latex primer-sealer and two coats eggshell latex enamel.
- 3.6.2 **For primed ferrous metal surfaces apply:** One coat alkyd zinc rich metal primer and two coats semi-gloss alkyd enamel.
- 3.7 CLEANING**
- 3.7.1 Remove paint marks and splatterings, as work proceeds and on completion.

END OF SECTION