INDEX TO SPECIFICATIONS

The Corporation of the City of Oshawa

Donevan Recreation Complex Security Glazed Partitions

171 Harmony Road South, Oshawa, ON L1H 6T4

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TECHNICAL SPECIFICATION INQUIRIES

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END OF SECTION 00010

1. LIST OF CONTENTS

END OF SECTION 00860

1. Additions, deletions and additional instructions in all amendments apply to and govern the Contract Documents in accordance with GC1 as amended by the Supplementary Conditions.

2. LIST OF CONTENTS

ADDENDUM NO.	PAGES	DATE INCLUDED:	AMENDMENT DRAWINGS

END OF SECTION 00900

PART 1 WORK OF THIS CONTRACT

1.1 Shall include but not be limited to:

1.2 WORK INCLUDED

1.2.1 Provide Temporary barriers and protection.

1.2.2 Contractor shall provide temporary dust tight barriers to isolate the active work zones from the occupied office and public lobby areas.

1.2.3 Construction access shall be through the South Entry doors.

1.2.4 Contractor shall provide a 2400 mm height temporary Iomega or Fast Fence fenced construction compound in the South parking lot. Compound shall be 6.0 m x 7.2 m. Contractor shall be responsible for securing this compound. Disposal bins shall be maintained within the compound. The Contractor will be assigned 6 parking spaces.

1.2.5 Provide temporary 2400 mm ht hoarding around the alteration area comprised of 92 mm steel studs at 24" centers with 13mm gypsum board on the public side and a hollow metal construction access door with lockset to secure the active work zone. Maintain 1800 mm egress clearance around the hoarding. Gypsum board on the hoarding Is not required to be taped and finished. Ensure fasteners are not projecting. Anchor the hoarding to the existing bulkhead at max 48" centers and provide a 6mil poly-super six vapor barrier for dust protection.

1.2.6 Brace hoarding to prevent overturning.

1.2.7 The Contractor shall provide and maintain temporary lighting as required during construction.

12.8 Contractors forces shall ensure compliance with the OHSA and wear required PPE.

1.2.9 The Contractor's site superintendent will be provided with a temporary security code for accessing the work zone.

1.2.10 All disposal bins, materials must be stored within the secured site occupation limit. Provide sea-cans for securing materials.

1.2.11 Construction may proceed during the hours of 6:00 am – 7:00 pm Monday - Sunday
Contractor's forces shall include all necessary overtime premiums costs in their scope of work under this contract.

1.2.12 The Contractor is responsible for daily cleanup of resultant debris from the work zones.

1.2.13 Contractor shall ensure the electrical subcontractor includes for the sequential ESA inspection and certification as required to maintain schedule.

1.2.14 All movement of construction materials and demolition debris shall be coordinated with the Designated Project Manager City of Oshawa Facility Services and the City of Oshawa Security Manager.

1.2.15 Contractor is responsible for maintaining full time site supervision on this project throughout the duration of all construction activities. All personnel must sign in the site log to be maintained by the site superintendent. All deliveries of materials to the site to be fully supervised by a flag person (s)

1.2.16 Contractor shall supply and install four TOA NX—XC65 WP IP Audio Window Bi- directional Communication units complete with 4 internal Master Stations, power supplies , USB power supplies, and one TOA DVR unit to be interconnected with the communication devices.. Coordinate Predrilling of the holes for the wiring in the security screens with Division 08.

1.2.18 Hoarding must be set up off hours prior to commencement of selective demolition operations...

1.2.19 A pre-construction meeting will be held 10 days prior to startup on site.

1.2.20 Site meetings will be held bi-weekly and chaired by the Consultant.

1.2.21 Contractor shall coordinate with the Owner's security manager throughout duration of construction.

1.2.22 Shop drawing submittals for critical delivery items shall be made within 10 days of contract award.

1.2.23 The existing rolling grille is to be removed. The ceiling track on the reception Bulkhead shall be removed and the gypsum board bulkhead repaired. The track shall be removed from within the existing stacking pocket.

1.2. The contract documents include a cash allowance for the electrical power supplies for the TOA units, modifications to existing power and lighting controls, data cabling and connections to the existing hub rack by the Owner's prequalified electrical and network infrastructure subcontractor. The power supply for the power door operator shall be part of the electrical cash allowance. Cost of the electrical and network sub-contractor will be disbursed thru the Cash Allowance Provisions of the Contract.

1.2.25 The Owner's forces will move the existing reception / security personnel and computer equipment, photo copier and phones, furniture from the work zone prior to "Contractor start=up on site. Owner's moving company will reinstall the workstations and computer equipment at Substantial Completion.

1.2.26 Contractor is responsible for verifying existing field conditions and dimensions and coordination with their suppliers, subcontractors.

1.2.27 Use of the City's equipment and ladders is prohibited.

1.2.28 Use of the City's disposal bins on site is prohibited.

1.2.29 The City's project manager will designate a location for the contractor to access water for construction operations.

1.2.30 The Contractor is advised that the municipal property is a non- smoking environment. Contractor to ensure all subcontractors are aware of this policy.

1.2.31 It is the intent of this Contract that the work of this contract **shall not exceed** a duration of 10 weeks on site.

1.2.32 Contractor shall prepare a construction schedule for review with the Owner and Consultant. Schedule to be updated bi – weekly during construction. Construction schedule shall be on a Gantt Chart Format.

1.2.33 **Receive** means unload and transport on site and store within the alteration area. Provide onsite secure containers for storage of the finish hardware, doors and frames.

1.2.34 Glazing shall be stored off site until framing is ready for installation.

1.2.35 Provide protective covers on heat and smoke detectors within the active work zones.

1.2.36 All debris resulting from selective demolition operations shall be placed in disposal bins and containers within the fenced construction compound.

1.2.37 The existing building fire alarm system must remain in full operation during construction.

1.2.38 Contractor must maintain a clear path of access to exits within the alteration area.

1.2.39 All new glazing and millwork shall be cleaned by the contractor at substantial completion.

1.2.40 Contractor shall maintain temporary construction access routes during entire duration of construction including supervision of all delivery and construction vehicles entering and leaving the site.

1.2.41 Contractor shall provide selective demolition, misc. metals, rough carpentry, finish carpentry , millwork, fire stopping and smoke seals, joint sealants, gypsum board, metal stud systems, acoustic ceilings,, cove base, aluminium glazed security screen framing system complete with all fasteners, formed aluminium profiles, closures, shims, laminated glazing, glazing gaskets, deflection tracks, painting, HVAC & Sprinkler modifications, modifications to existing lighting, power supplies for the 4 – TOA intercom units , the DVR and the 4 control stations, as set forth on the drawings and as specified herein.

1.2.42 Contractor shall maintain dust control measures throughout duration of construction. I.E. Portable Hepa Filter systems. This is mandatory.

1.2.43 Provide temporary heat, power, lighting, telephone and weather protection. The owner will designate one staff washroom for use by construction personnel. Use of public washrooms is prohibited.

1.2.44 Provide all cutting and patching as required to fit new construction to existing.

1.2.45 Provide 2 new 24” x 24” supply air diffusers EH Price Model SCDA-FR Square Cone diffuser with fire stop blanket, fusible link fire stop flaps, round neck for 8” diameter duct connection.(refer to architectural reflected ceiling plan for location). Retain a mech sheet metal subcontractor for installation of the 3 diffusers to replace the existing units.

1.2.45 Division 16 is responsible for the costs of obtaining the ESA permit, ESA inspections and certificate.

1.2.46 Division 16 is responsible for the relocation of existing fixtures as set forth on the drawings.

1.2.47 The contractor shall include the costs to retrofit the existing entry door into the security reception station with a power door operator, electric strike and low voltage control push buttons.

1.2.47 All of the above as shown or described on the drawings and as hereinafter specified.

1.3 WORK NOT IN THIS CONTRACT

1.3.1 The Owner will arrange for the sequential moving of the existing furniture workstations, shelving, filing cabinets, printers, computer hardware, monitors,
as the work progresses and as agreed during construction based on progress on site.

1.3.3 Signage is not in contract.

PART 2 GENERAL REQUIREMENTS

2.1.1 The Work involves sequential occupancy of sections of the Work. Timing of the Work of this contract shall be as set forth in the Instructions to Bidders and the Tender Form. It is the intent of these documents that, the Contractor shall promptly organize and co-ordinate shop drawing submittals within 10 days of contract award to ensure achievement of the stipulated occupancy date.

2.1.2 Conform to all Divisions and all parts of all Divisions of the Contract Documents commencing with Division 00, Bidding and Contract Requirements.

2.1.3 Notes on the drawings supplement the specifications subject to the General and Supplementary Conditions of the Contract.

2.1.4 Wherever the words, "approved", "satisfactory", "directed" "permitted", "inspected", "instructed", "required", "submit", "ordered", or similar words or phrases are used in the Contract Documents, it shall be understood, unless the context provides otherwise, that "by the Consultant" follow.

2.1.5 The contractor shall maintain the existing fire alarm and security system fully operational throughout the duration of construction.

2.1.6 The contractor shall ensure that all construction personnel do not enter the occupied portions of the Community Centre outside of the alteration area.

2.1.7 The contractor’s forces are responsible for any damage by their forces to the designated staff washroom.

2.2 ACCESS TO BUILDING

2.2.1 The Owner, Consultant and authorities having jurisdiction shall have access to the work at all times.

2.2.2 The Owner and other Contractors shall have the right to enter, use and occupy work site, in whole or in part, and place fittings and equipment before completion of the contract. The Contractor and his Subcontractors shall observe the right of other Contractors or persons authorized by the Owner or Consultant to use the work site.

2.2.3 **Keys and access to the building security code will be provided to the site superintendent by the Owner to the Contractor.**

2.2.4 The Contractor shall provide free and safe access to the building should the Owner require occupation prior to scheduled completion of the contract. The Contractor shall **not** be entitled to indemnity for any interference with their operations and any work still to be performed by the Contractor shall be performed at times other than when the building is occupied. Costs for Owner's staff to be present during work being carried out by the Contractor on weekends and after hours once the security station is re-occupied, shall be paid by the Contractor.

2.2.5 Such entry or occupation by the Owner shall not be considered as acceptance of the work or in any way relieve the Contractor of their responsibility to complete the project on time.

2.3 PROVIDE MEANS, SUPPLY AND INSTALL

2.3.1 The words "by others" when used in the Specifications or on the Drawings shall not mean by someone other than the Contractor.

2.3.2 The only means by which something shown or specified shall be indicated as not being in the Contract is by the use of the initials "NIC" or the words "not in (the) Contract", "by Owner", or "by Owner's forces".

2.4 THE WORD "ALL"

2.4.1 Whether used or not, is intended to apply to all products and cases (events) mentioned in the Specifications, unless the context clearly and specifically provides otherwise. Example: it may be specified in one place that blocks shall be free from chips and in another place, it may stipulate that all blocks shall be clean. It shall be understood from this that all blocks shall be free from chips and clean.

PART 3 EXECUTION AND COMPLETION OF THE WORK

3.1 Commence no work on site until the contract is signed, and the Owner's designated representative issues authorization in writing to the Contractor to proceed on site.

3.2 All work of this contract shall be carried out within the time frame stipulated in the tender documents.

3.3 Commence the work within ten (10) days of the signing of the Contract.

3.4 If necessary, due to special construction conditions, or if it becomes necessary in order to complete the Work within the contract time, to work overtime, the Contractor shall pay all necessary overtime costs and shall provide all necessary permits, co-ordination, etc. for same.

3.5 It shall be understood that the Contract Price includes sufficient funds for the provisions of temporary heating, temporary shelters and other necessary measures to enable all sub trades to proceed without delay regardless of weather or field conditions.

3.6 It shall be understood that the general contractor shall maintain a full-time superintendent on site for the entire duration of work of this contract.

3.7 **Deficiencies and defects in materials and / or workmanship must be corrected within 5 working days of notice from the Consultant or designated Owner's representative.**

3.8 The Contractor may obtain temporary water and power from the existing building at points approved by the Owner.

3.9 The Consultant will chair and minute the preconstruction meeting.

3.10 The Consultant shall chair and minute bi- weekly construction meetings throughout the duration of the construction. Minutes shall be distributed within 72 hours of the site meeting.

END OF SECTION 01010

PART 1 DESCRIPTION

1.1 REQUIREMENTS INCLUDED

1.1.1 Schedule of Values, Construction Schedule, Certificates and Transcripts, Shop Drawings and Product Data, Samples, Record Drawings, and Operating Manuals and Reference Data.

1.2 WORK INCLUDED

1.2.1 Make submittals to the Consultant as called for throughout the Contract Documents, in conformance with this Section.

1.2.2 Make any changes in submittals which the Consultant may require, consistent with the Contract Documents and resubmit unless otherwise directed by the Consultant.

PART 2 GENERAL REQUIREMENTS

2.1 CONTRACTOR'S RESPONSIBILITY FOR SUBMITTALS

2.1.1 When making any submittal, the Contractor shall notify the Consultant, in writing, separate from the submittal of changes made therein from the Consultant's Drawings or Specifications. The Consultant's review of such submittals or of the revised submittals shall not relieve the Contractor from responsibility for changes made from the Consultant's Drawings or Specifications not covered by the Contractor's written notification to the Consultant.

2.1.2 The review of submittals 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 submittals, responsibility for which shall remain with the Contractor submitting same. Such review shall not relieve the Contractor of his responsibility for errors or omissions in the submittals, or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the Site, for information that pertains solely to fabrication processor or to techniques of construction and installation, and for co-ordination of the work of all Subcontractors.

2.1.3 The Contractor shall assume responsibility for any conflicts occurring between the Subcontractors which result from lack of comparison and co-ordination of submittals of the work of the affected trades.

2.1.4 The review of submittals does not authorize changes in cost or time.

2.1.5 The Work shall conform with reviewed submittals subject to the above conditions.

2.1.6 All submittals shall be checked by the Contractor for conformity to Drawing and Specifications and his contractual requirements before submission to the Consultant for review. All submittals must bear the stamp of the Contractor and the signature of an authorized official in the Contractor's organization indicating in writing that such submittals have been checked and co-ordinated by the Contractor and his / her site superintendent.

2.2 SCHEDULING TIME OF SUBMITTALS

2.2.1 Make submittals with reasonable promptness and in an orderly sequence so as to cause no delay in the Work or in the work of other contractors. Be responsible for delays, make up time lost and pay added costs incurred because of not making submittals in due time to permit proper review by the Consultant and the Owner.

2.3 SAMPLES

2.3.1 Samples shall be constructed of the same materials as specified for the sampled element of the Work. Samples of assemblies shall be prepared so as to hold together as a unit.

2.4 TITLE

2.4.1 Each sheet or sample shall bear a title block or label giving the following information:

a) Name of the Work;
b) Descriptive name of subject matter;
c) Name, address and telephone number of fabricator;
d) Name, address and telephone number of person responsible for preparation of submittals;
e) Fabricator's project and submittal reference numbers;
f) Date prepared, and scale;
g) Date approved and initial of authorized person;
h) Signature and seal of sub-consultant where required by the Documents or authorities.

PART 3 SCHEDULE OF VALUES

3.1 Submit a schedule of values, broken down Section by Section and Subcontractor by Subcontractor on the monthly application for payments.

PART 4 CONSTRUCTION SCHEDULE

4.1 Submit a construction schedule to the Owner and Consultant within ten (10) days of award of Contract.

4.2 The construction schedule shall be in the form of a bar chart showing the commencement date, duration, completion date and any anticipated interruptions of each Section and each Subcontractor, major material and / or equipment delivery dates.

4.3 All Sections shall be made aware of this Schedule, agree that is feasible and acknowledge their commitment to it.

4.4 Show the date of commencement of work and the dates of Substantial Completion and Total Performance.

4.5 Post, maintain and enforce the schedule in accordance with Section 01040, Co-ordination.

PART 5 CERTIFICATES AND TRANSCRIPTS

5.1 **Immediately upon award of Contract, submit Workplace Safety & Insurance Board Certificate of Clearance, transcript of insurances executed bonds and copy of Ministry of Labour Notice of Project.**

PART 6 SHOP DRAWINGS AND PRODUCT DATA

6.1 Manufacturer's publications are acceptable for non-custom items of equipment. Where manufacturer's catalogues, excerpts from catalogues, pamphlets or other data sheets are submitted for items of equipment in lieu of, or together with prepared shop drawings, submit same number of copies of such publications and specifically indicate the items involved; submissions showing only general information are not acceptable.

6.2 Copies of shop drawings may be required by all or any of the following: Consultant, Sub-consultants, Authority, Owner, Contractor, Subcontractor, Fabricator and Operating Manuals and Reference Data.

6.3 Provide the following number of copies of shop drawings:

a) All Sections 1 high resolution digital file PDF format.

b) One copy of all Shop Drawings shall be submitted directly to Owner’s representative by the Contractor when submittals are being made to the Consultant.

6.4 SHOP DRAWINGS AND PRODUCT DATA SHOW ALL

Necessary plans, elevations, sections and details to show all applicable information as required herein; dimensions; configurations, types and sizes required: Identify each unit type on drawing and on product; placing patterns, spacing, layout, locations, erection diagrams; integral reinforcement, framing, fabrication; anchoring, anchoring devices; control joints, joints and connections between elements; preparation and reinforcement for other products to be attached; welds: For structural welds use AWS symbols and clearly show net weld lengths, sizes and sequence; design loads for engineered products such as deck, mechanical and electrical equipment; descriptions of materials; metal, glass, board, panel, etc. thicknesses; finishes, shop and integral including thicknesses, colours, textures; glues, adhesives, joinery; installation details and instructions (for products to be installed by other Subcontractors); functions.

PART 7 SAMPLES

7.1 Submit 2 identical samples of each item required showing specified or proposed materials, construction, finish, colour, texture and pattern.

7.2 One of each pair of accepted samples will be returned to the contractor who shall hold it on Site until removal of it from the Site is permitted by the Consultant.

7.3 Any materials or assemblies, whether incorporated in the Work or not, which do not match approved samples shall be removed and replaced at no extra cost to the Owner.

PART 8 RECORD DRAWINGS

8.1 The Contractor shall obtain from the Consultant a complete and separate set of white prints to keep on the Site at all times.

8.2 These prints shall be marked up by responsible personnel of the Contractor and Subcontractors to record clearly, neatly, accurately and promptly all locations of buried mechanical and electrical work and deviations from the Contract Documents.

PART 9 OPERATING MANUALS AND REFERENCE DATA

9.1 The Contractor shall forward the following to the Consultant in conformance with the specified take-over procedures:

9.2 One printed copy loose leaf binder and electronically on a USB key:

a) List of all Subcontractors, major suppliers, and local equipment service representatives, their addresses and telephone numbers.

b) Date of substantial completion (commencement of warranty periods) and termination dates of warranties.

c) Operating manuals including electrical / electronic equipment. Reviewed shop drawings.

d) Maintenance and service instructions and manufacturer's literature for all special architectural features, millwork, intercoms, security glazed screen hardware parts lists and joint sealants used on this project.

g) All duly completed and signed extended warranties, etc.

h) **One copy** of each of the following in one of the binders: Statutory Declarations on CCA Forms 9A and 9C; Workplace Safety and Insurance Board Certificate; Electrical Safety Authority Certificate of Inspection; and Extended Warranties.

9.3 Label USB key and Binder:

9.3.1 **Name of Project**: **Donevan Community Centre Security Glazed Screens**

9.3.2 **Name of Owner**: City of Oshawa

9.3.3 **Name of Consultant**: J.R. Freethy Architect

9.3.4 **Name of Contractor**:

PART 10 PROGRESS PHOTOGRAPHS

10.1 Subsequent to commencement of work and thereafter at weekly intervals, provide the Consultant and Owner with digital photographs each recording the construction progress.

PART 11: DEMONSTRATION OF EQUIPMENT

11.1 The Contractor shall arrange for the TOA Technical Representative to attend the site, program and demonstrate the operation of the equipment to the facility staff.

END OF SECTION 01300

PART 1 DESCRIPTION

1.1 Requirements Included:

Cleaning of the Work in progress.

PART 2 GENERAL CLEANING

2.1 The Contractor shall clean up the building and Site each day during the construction period. All debris and excess material shall be removed from the Site.

2.2 Should the Contractor fail to perform such clean up and/or removal, then the Consultant shall, on behalf of the Owner, notify the Contractor in writing that he/she is in default of his/her contractual obligations and instruct the Contractor to undertake said work within 24 hours of receiving the notice.

2.3 If the Contractor fails to comply with the direction, then the Owner may undertake such work and may deduct the cost thereof from the payment then or thereafter due the Contractor.

2.4 Remove oily rags and waste and other combustible debris from the active work zone at close of each day, or more often if required, and from site construction compound at least once a week.

2.5 Disposal Bins shall be 4.0 metres from the building face and kept within the storage compound.

3 STRIPPABLE COATINGS & LABELS

3.1 Remove from finished surfaces all labels and strippable protective coatings before they thermoset. All glazing shall be cleaned by the contractor prior to substantial performance.

4 FINISHED SURFACES

4.1 Clean finished surfaces upon the completion of the work of each Section for inspection by the Consultant.

END OF SECTION 01640

PART 1 DELIVERY & SCHEDULING

1.1 **It is the responsibility of the Contractor to ensure that the supplier and/or distributor of the materials specified, which he / she intends to use, are on the Site when required.** All field dimensions of the existing field conditions and openings must be fully correlated by the Contractor and related subcontractors and / or suppliers prior to fabrication of the new construction components.

The Contractor shall obtain written confirmed delivery dates from the suppliers and / or distributors.

1.2 Notify the Owner and Consultant of any anticipated delays for the supply of product(s) and/or equipment.

PART 2 STORAGE, HANDLING AND PROTECTION

2.1 Store products in original and undamaged conditions with manufacturer's labels intact, protected from weather. The scheduling of the aluminium door frame and screens, wood doors, finish hardware, glazing is critical to achieving the stipulated occupancy date. **The contractor will provide secure enclosed containers on site within the designated exterior site occupation limits. Glazing is to be securely stored off site until site is ready for installation.**

2.2 The contractor shall be responsible for the costs of any glazing replacements due to vandalism within the alteration areas.

2.3 Store doors, millwork, window assemblies and glazing on flat solid supports in secure area under similar temperature and humidity conditions to finished work.

2.4 Paints shall not be stored in the building.

2.5 Damaged products shall be replaced at no cost to Owner.

2.6 Handle products in accordance with WHMIS.

END OF SECTION 01610

PART 1 DESCRIPTION

1.1 Requirements Included

1.1.1 Take-Over Procedure.

1.1.2 Finished Areas.

1.1.3 Final Cleaning.

1.1.4 Systems Demonstrations.

1.1.5 Documents.

1.1.6 Project Commissioning.

PART 2 TAKE-OVER PROCEDURE

2.1 General

2.1.1 The procedure for completing contracts and acceptance by the Owner is to be in accordance with the method described in the OAA/OGCA Document 100 and any additional requirements described below. The procedure described in the document consists of the following seven stages:

Stage 1 Contractor's Inspection for Substantial Completion
Stage 2 Contractor's Application for Certificate of Substantial Completion
Stage 3 Consultant's Certificate of Substantial Completion
Stage 4 Consultant's Certificate for Payment for Release of Holdback Monies
Stage 5 Final Inspection for Total Completion
Stage 6 Consultant's Final Payment Certificate and Release of Finishing Holdback Monies Payment Certificate
Stage 7 Warranty Period(s)

2.1.2 All stages will be reviewed at the pre-construction meeting to ensure that all parties understand their responsibilities.

2.2 Defect and Deficiency

2.2.1 A defect is an item of the Work required by the Contract which has been installed but requires repair and/or replacement at a specific time. An unauthorized product substitution shall be considered a defect and replacement of the element(s) shall be at the sole expense of the contractor.

2.2.2 A deficiency is an item of the Work required by the Contract which has not been installed or put into operating condition.

2.2.3 A warranty item is an item of work, installed under a contract which a manufacturer or installer agrees to maintain in, or restore to perfect condition for a specific period of time, after the Owner's acceptance of the Work as being substantially complete.

2.2.4 When, in the Consultant's opinion, the Work under the Contract is substantially complete, and prior to the final inspection by the Owner, a preliminary inspection shall be made at which time all defects and deficiencies shall be listed, taking care to distinguish between the two.

2.3 Deficiency List

2.3.1 Neither the Owner's representatives nor the Consultant will be responsible for the issue of extensive lists of deficiencies. The Contractor shall understand that the prime responsibility for ensuring that all items shown on the Drawings and described in the Specification are complete is theirs. Any inspections to approve Certificates of Substantial Completion shall be immediately cancelled if it becomes obvious that extensive deficiencies are outstanding.

2.3.2 During the inspection, decision must be made as to which defects must be rectified before the building can be accepted and which defects are to be treated as warranty items. Deficiencies shall be made good before the Contract is deemed complete.

PART 3 FINISHED AREAS

3.1.1 Close rooms and areas when Work of finished glazing and painting is at the final application stage and/or complete.

PART 4 FINAL CLEANING

4.1.1 Remove waste materials and debris from the Site at regularly scheduled times or dispose of as directed by the Consultant. Do not burn waste materials on site, unless approved by the Owner, Consultant and authorities having jurisdiction.

4.1.2 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

4.1.3 Leave the work room clean before the inspection process commences.

4.1.4 Immediately prior to occupancy by Owner, clean and dust and remove all stains and smudges from all finished surfaces, and all exposed fixtures and equipment.

4.1.5 Remove dust and soil form all surfaces by vacuuming, damp mopping, washing and scrubbing, as required. Vacuum behind grilles, louvers and screens. Do not wax porcelain tile or resilient tile floor finishes.

4.1.6 Glazing surfaces shall be cleaned.

4.1.7 Clean all casework, specialties and accessories.

4.1.8 Remove all necessary labels, protective coating, markings and tags, thoroughly clean surfaces of adhesives.

4.1.9 Avoid contamination of surrounding surfaces with cleaning fluids.

4.1.10 Methods and materials for cleaning shall be in accordance with the manufacturer's recommendations for the finishes involved.

PART 5 SYSTEM DEMONSTRATION

5.1.1 Prior to final inspection, demonstrate operation of each system to Owner and Consultant.

5.1.2 Instruct personnel in operation, adjustment and maintenance of equipment and systems, using provided operation and maintenance data as the basis for instruction. The Contractor and responsible personnel from the Subcontractors whose work is being demonstrated shall be present at these demonstrations.

5.1.3 Balancing reports, ESA Certificate of Approval, Fire Alarm Verification Certificate, Sprinkler Verification Certificate shall be submitted prior to issuance of the Certificate of Substantial Completion.

5.1.4 Plumbing fixtures, heating and ventilation systems must be fully operational as a condition of Substantial Completion.

PART 6 DOCUMENTS

6.1.1 Within 42 days of commencement of Work, the Contractor shall make the first submittal required by OAA/OGCA Document 100, Take-Over Procedures.

6.1.2 Submit a final statement of account giving total adjusted Contract Sum, previous payments, and monies remaining due.

6.1.3 All required documents shall be submitted along with request for certification of Substantial Completion.

PART 7 PROJECT COMMISSIONING

7.1.1 Expedite and complete deficiencies and defects identified by the Consultant.

7.1.2 Review maintenance manual contents (operating, maintenance instructions, record "as-built" drawings, materials) for completeness.

7.1.3 Review cash allowances in relation to Contract Price, change orders, holdbacks and other Contract Price adjustments.

7.1.4 Submit required documentation such as statutory declarations, Workplace Safety and Insurance Board Certificate, warranties, certificates of approval or acceptance from the authorities.

7.1.5 Review inspection and testing reports to verify conformance to the intent of the documents and that changes, repairs or replacements have been completed.

7.1.6 When partial occupancy of uncompleted project is required by the Owner, co-ordinate Owner's uses, requirements, access, with Contractor's requirements to complete project.

7.1.7 Provide on-going review, inspection and attendance to building call-back, maintenance and repair problems during the warranty periods.

7.1.8 Finished areas shall be sequentially turned over to the Owner for custodians to access the work zone for final cleaning and furniture setup.

END OF SECTION 01700

PART1 DESCRIPTION

1.1 Requirements Included:

Definitions; Submittals; Effective date of warranty period; extended or special warranties.

1.2 Related Requirements:

GC.24, Warranty; Special Conditions section 00800.

PART 2 DEFINITIONS

2.1 Defects:

The failure of equipment or systems to operate in the manner in which they were intended or designed to operate shall constitute a defect. The term "defect" shall not be construed as embracing such imperfections as would naturally follow misuse, failure to perform recommended maintenance, accident, or the wear and tear of normal use.

2.2 Any manufactured item or material which, when used as directed, must be capable of such use for the duration of the specified warranty period. Failure to comply with this requirement shall be considered as being a "defect".

PART 3 SUBMITTALS

3.1 Submit a fully executed and notarized copy of each extended warranty and each warranty with special provisions, worded as per the specifications, along with the application for Certificate of Substantial Completion.

PART 4 DATE OF COMMENCEMENT OF WARRANTY PERIOD

4.1 The **Warranty period** for each product or installation **shall commence** on the date of Substantial Performance as certified by the Consultant **or** the date of acceptance of a product or system, whichever comes later.

4.2 Execute transition of **Performance and Labour and Materials Payment Bonds** to **Warranty period** requirements.

PART 5 EXTENDED OR SPECIAL WARRANTIES

5.1 In accordance with GC 24, Warranty, as amended by Supplementary Conditions, the following is a list of extended or special warranties. (IE: Warranties which extend beyond the 12 months required under the General Conditions of the Contract or have special conditions attached to them.) This list is given for convenience only and may be incomplete. Warranties may exist elsewhere in the Contract Documents or warranties may be available for products supplied for the Work without said warranties being stipulated in the Contract Documents. All such warranties are applicable and in force whether listed in this summary or not.

PART 6 LIST OF EXTENDED AND SPECIAL WARRANTIES

ITEM	SECTION	WARRANTY PERIOD
Section 06400	Millwork	2 years
Section 07900	Sealants	5 years
Section 08116	Aluminium Frames	5 years
Section 08200	Wood Doors	3 years
Section 08800	Glazing	2 years

END OF SECTION 01740

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply to all pertinent sections and articles in Division 1 - General Requirements

1.2 Work Included

1.2.1 Work consists of performing selective demolition work on elements of existing building as designated on the drawings and as herein specified and as required by the work.

1.2.2 Provide all required construction barriers and construction signage.

1.2.3 Remove resultant debris from the site.

1.2.4 Patch and make good all adjacent interior wall, floor, ceiling finishes and millwork damaged by the removal of existing construction and operations related to implementing the construction work of this contrac..

1.2.5 Comply with the applicable requirements of CSA S350 - M1980 (R2003) “Code of Practice for Safety in Demolition of Structures” latest revision and authorities having jurisdiction latest revision.

1.2.6 At the existing security station dismount the existing acrylic security screens, suspension chains. Remove the existing recessed rolling grille ceiling track, rolling grille, rolling grille track within the grille storage pocket in its entirety.

1.2.7 Dismount the existing surface mounted security intercoms and control stations.

1.2.8 Remove the existing upper millwork hood sections, countertops, drawer banks, shelving, gables, base cabinet millwork, kicks, furring supports, perforated metal grill on the existing millwork related fasteners and the freestanding millwork cashdrawer element.

1.2.9 Arrange for Division 16 to dismount existing receptacles, data ports and security door release controls and security emergency call buttons.

1.2.10 Remove existing brochure holders.

1.2.12 Remove the existing rubber cove base at existing base cabinetry

1.2.13 Remove section of the existing acoustic tile ceiling assembly in the staff security reception area, temporarily support existing light fixtures. Cut back existing gypsum board bulkheads and ceiling finishes as required to fit new construction to existing. Cut openings as required to access existing sprinkler piping for modifications to the system. Remove sections of the existing security rolling grill track within the existing door pocket.

1.3 Existing Conditions

1.3.1 Concealed elements of the existing piping and structure may contain asbestos materials. It is the intent of these specifications that, this material is to be removed under a separate contract by a licenced asbestos removal contractor **retained by the Owner in accordance with the requirements of the applicable legislation.**

1.3.2 Demolition of spray or trowel-applied asbestos can be hazardous to health. **Should concealed material resembling spray or trowel applied asbestos be encountered in the course of demolition work in other areas, stop work immediately. Do not proceed until written instructions have been received from the Owner.**

1.3.3 The abatement operations and disposal of asbestos materials shall be in accordance with “applicable law”. Abatement operations shall be performed by the Owner’s abatement contractor when the public and staff **are not** in the building.

1.3.4 The Owner will remove all computers, photocopiers, smart screens, cash drawers, scanners and wireless hubs, phones, furniture, office supplies and books from the work zone prior to work of this contract proceeding.

1.3.5 All demolition debris must be transported from the work zone to disposal bins within the fenced Contractors occupation limits and disposed of in accordance with the requirements of the Ministry of Environment, W.S.I.B., Occupational Health and Safety Act.

1.3 Protection

1.3.1 Prevent movement, settlement or damage of adjacent parts of existing building to remain. Provide bracing, shoring as required. Make good, damage caused by demolition.

1.3.2 Take precautions to support affected structures and if safety of building appears to be endangered, cease operations and notify Owner and Consultant immediately.

1.3.3 Contractor is to ensure full supervision of selective demolition operations to ensure operations do not pose a risk to the building occupants and or construction personnel in accordance with applicable law.

1.3.4 Cutting of scheduled openings in existing walls shall be done off hours when the staff are not in the work zone.

1.3.5 Use of cutting torches is prohibited. Grinding if required must be done off hours when the public and staff are not in the building. Fire extinguishers must be provided by the Contractor at all locations involving cutting, grinding operations that may generate sparks. A hot work permit is required from the designated City of Oshawa Project Manager.

PART 2 EXECUTION

2.1 All personnel shall wear PPE in accordance with the Occupational Health and Safety Act.

PART 3 GENERAL

3.1 Prepare exposed substrates for new scheduled finishes.
3.2 Dispose of all resultant debris in accordance with the requirements of authorities having jurisdiction. Recycle debris where possible.

3.3 Contractor shall protect existing floor finishes scheduled to remain and doors from damage as a result of demolition and disposal operations.

3.4 Existing smoke detectors within areas subject to dust generation shall be protected with purpose made temp. caps.

3.5 Co-ordinate temporary disconnection of existing active services or services to be abandoned with division 16.

3.6 Patch and make good all adjacent finishes as required to fit the new construction to existing conditions. No obstructions or debris in the corridors or exit doors is permitted at any time during construction.

3.7 ALL OF THE ABOVE AS INDICATED ON THE DRAWINGS AND AS HEREIN SPECIFIED.

END OF SECTION 02010

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Description

1.2.1 Provide miscellaneous wood trim, casings and blocking. Provide cutting and patching at existing millwork as required to fit new construction.

1.2.2 Receive install wood doors and finish hardware from Division 8.

1.2.3 All of the above as indicated on the drawings and as specified herein.

1.3 Related Work

1.3.1
.1 Selective Demolition Section 02010
.2 Architectural Woodwork: Section 06400

1.4 Reference Standards

1.4.1 Do finish carpentry to Custom grade millwork standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC) latest edition, except where specified otherwise.

1.5 Product Delivery, Storage and Handling

1.5.1 Protect materials against dampness during and after delivery.

1.5.2 Store materials in ventilated areas, protected from extreme changes of temperature or humidity.

PART 2 PRODUCTS

2.1 Lumber Material

2.1.1 Hardwood Lumber: moisture content 10% or less in accordance with following standards: Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

.1 NLGA-GR-2022. Select white maple suitable for stain finish.

2.2 Fasteners

2.2.1 Nails and Staples: to CSA B111-1974 (R2003) plain finish.

2.2.2 Wood Screws: to CSA B35.4- R2013 electroplated.

PART 3 EXECUTION

3.1 Workmanship

3.1.1 Scribe and cut as required to fit abutting walls, and surfaces, to fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.

3.1.2 Form joints to conceal shrinkage.

3.2 Fastening

3.2.1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.

3.2.2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.

3.2.3 Set finishing nails to receive filler. Where screws are used to secure members countersink screw in round cleanly cut hole and plug with wood plug to match material being secured.

3.2.4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.

END OF SECTION 06200

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Description

1.2.1 Work Included

Attend the site and confirm all existing site conditions, dimensions. Fabricate and install all new security station millwork including base cabinetry, drawer units, countertops, gable supports, Barrier free countertop supports, reglets, structure. at the locations indicated as indicated on the drawings and as herein specified.

1.2.2 Provide all required cutting and patching of existing millwork unit as required to fit new millwork to existing.

1.3 Related Work

1.3.1 Section 06200 Finish Carpentry.

1.3.2 Section 09900 Painting.

1.3.3 Division 16.

1.4 Samples

1.4.1 Submit duplicate samples of the plastic laminate finishes, clear finish on specified nosing's and scheduled core materials. **Submit a mockup of the countertop nosing / countertop edge for review and approval prior to fabrication. Sample to include the veneer core countertop assembly and laminate.**

1.5 Reference Standards

1.5.1 Do architectural woodwork to Custom Grade Millwork Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC)(NAAWS) latest editions, except where specified otherwise.

1.6 Shop Drawings

1.6.1 Submit shop drawings in accordance with Section 01300 -Submittals.

1.6.2 Indicate details of construction, profiles, jointing, fastening and other related details.

1.6.3 Indicate all materials, thicknesses, finishes and hardware.

1.6.4 Indicate locations of all service outlets in casework, typical and special installation conditions, and all connections, attachments, anchorage and location of exposed fastenings. Attend the site and verify all field dimensions and conditions relating to the scheduled woodwork installation locations and environmental conditions.

1.7 Product Delivery, Storage and Handling

1.7.1 Protect millwork against dampness during and after delivery.

1.7.2 Store millwork in ventilated areas, protected from extreme changes of temperature or humidity.

1.8 Warranty

1.8.1 Warrant work for a period of two years. Warranty shall include all labor and materials required to replace warped doors, countertops, delamination, defective hardware or finishes.

PART 2 PRODUCTS

2.1 Material

2.1.1 Softwood lumber unless specified otherwise, S4S, moisture content 7% or less in accordance with following standards:

.1 CSA 0141-05.
.2 NLGA Standard Grading Rules for Canadian Lumber, 2007.

2.1.2 Machine stress-rated lumber is acceptable for all purposes.

2.1.3 Hardwood Lumber

Moisture content 6% or less in accordance with following standards:
.1 National Hardwood Lumber Association (NHLA), January 1986.
.2 Exposed and semi-exposed work: White Maple, exposed faces flat sliced.

2.2 Veneer Core Plywood:

19 mm thick veneer core grade A faced plywood unfinished.

2.3 Particle Board Core:

19 mm thick grade 10-90

2.4 Plastic Laminates:

2.4.1 PL 1: Countertops
Nevamar HPL – ARP Anthracite no. HP536-ARP Matte Texture 2.0 mm thick.

PL 2:
Formica # 9237 Sand Maple Standard Matte (85)

2.5 Backer Sheets:
Formica Backer Sheets 2.0 mm thick **(Mandatory on all the entire underside of countertops and barrier free countertop projections).**

2.6 Nosing's
Solid select white birch hardwood milled to profiles indicated on the drawings.

2.7 Aluminum Reveal Mouldings:
Fry Reglet Millwork Reveal No. 7550 (3/4") Clear Anodized Aluminum

2.8 Cabinet drawer and door pulls:
Richelieu BP 8160160195 modern metal pulls, brushed nickel finish, centers 160mm
Overall length 195mm.

2.9 Cabinet Hinges:
Richelieu RCS series 105 degree soft close overlay hinges complete with mounting plate.

2.10 Pilasters:
Knape & Vogt U shaped steel # 2552G24 Zinc Finish

2.11 Shelf Support Clips:
KV 256 Zinc

2.12 Drawer Slides:
Richelieu One Click undermount drawer slides 100 lb rated full extension soft close LDSCU- 18 complete with one stop front locking device.

2.13 Drawer Locks:
Richelieu # 800S satin chrome keyed alike

2.14 Cabinet Door Locks:
Richelieu # 700S satin chrome keyed alike

2.14 Grommets:
Richelieu Oval Cable Grommet # 1057690 Black (1 per workstation, total of 4 required) plus Richelieu 60 mm cable grommet # 9006090 Black (4 required)

2.15 Printer undermount glides:
Accuride T3135EC2G22 Zinc finish

2.16 Glues
Waterproof resin type except for plastic laminate which shall be recommended by the respective manufacturer for best results, all conforming to CSA 0112 Series and AWMAC/NAAWS standards.

2.17 Clear finish for Nosings:
Clear catalyzed lacquer 4 coats satin sheen

2.20 Clear finish :
Sico Polyurethane Satin finish Oil based or equal by Benjamin Moore. 4 coats.

2.21 Fabrication

All items shall be fabricated by one of the following companies:

.1	Allwood Carpentry Manufacturing	416-398-1460
.2	Baywood Interiors Ltd.	519-748-9577
.3	Markham Custom Woodworking	905-475-8317
.4	Second Generation Furnishings Inc.	905-738-1403
.5	Top Millwork Interiors Inc.	416-736-9868
.6	Wood Design Custom Millwork	905-595-1281
.7	York Woodworking	905-850-7222
.8	Mallet Millwork	416-746-9711
.9	Canadian Custom Design	905-721-9280
.10	Ellrod	905 683 8444
.11	Emily Creek	705 277 1563
.12	WoodArts	705 743 - 6483

2.22 Fabricate to AWMAC Custom Grade Standards latest edition

PART 3 EXECUTION

3.1 Installation

3.1.1 Install pre-finished millwork at locations shown on drawings. Position accurately, level plumb straight.

3.1.2 Fasten and anchor millwork securely. Provide heavy duty fixture attachments for concrete mounted locations.

3.1.3 Use draw bolts in countertops joints. Countertop joints are not permitted in casework less than 2400mm in length. Countertop joints must be fully supported.

3.1.4 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersection or penetrating objects.

3.1.5 Fit hardware accurately and securely in accordance with manufacturer's directions.

3.1.6 Provide all required scribing pieces and filler panels to suit field conditions and as detailed on the drawings.

3.1.7 Adjust all hinges, drawer slides for smooth operation.

3.1.8 Install grommets at locations to be determined with Consultant and Owner on site during millwork installation.

END OF SECTION 06400

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Work Included

1.2.1 Provide fire stopping and smoke seals at new service penetrations of existing wall construction.

1.2.2 All of the above as described on the drawings and as specified herein. Refer to mechanical and electrical drawings for service penetration locations.

1.3 Related Work

1.3.1 Fire stopping and smoke seals within mechanical assemblies (i.e inside ducts, dampers) and electrical assemblies (i.e. inside cable trays) are specified in Division 15 and 16 respectively

1.4 Shop Drawings

1.4.1 Submit product data in accordance with Section 01300 - Submittals.

PART 2 PRODUCTS

2.1 Materials

2.1.1 Fire stopping and smoke seal systems: in accordance with CAN4-S115-M85.

.1 Asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of CAN4-S115-M85 and not to exceed opening sizes for which they are intended.

2.1.2 Service penetration assemblies: certified by ULC in accordance with CAN4-S115-M85 and listed in ULC Guide No. 40 U19.

2.1.3 Service penetration firestop components: certified by ULC in accordance with CAN4-S115-M85 and listed in ULC Guide No. 40 U19.13 and ULC Guide No. 40 U19.15 under the Label Service of ULC.

2.1.4 Fire-resistance rating of installed fire stopping assembly not less than the fire- resistance rating of surrounding floor and wall assembly.

2.1.5 Fire stopping and smoke seals at openings intended for ease of re-entry such as cables: elastomeric seal; do not use cementitious or rigid seal at such locations.

2.1.6 Fire stopping and smoke seals at openings around penetrations for pipes, ductwork and other mechanical items requiring sound and vibration control: elastomeric seal; do not use a cementitious or rigid seal at such locations.

2.1.7 Primers: to manufacturer's recommendation for specific material, substrate, and end use.

2.1.8 Water (if applicable): potable, clean and free from injurious amounts of deleterious substances.

2.1.9 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.

2.1.10 Sealants for vertical joints: non-sagging.

PART 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 without interruption to vapour barrier.

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 Inspection

3.3.1 Notify Consultant when ready for inspection and prior to concealing or enclosing firestopping materials and service penetration assemblies.

3.4 Schedule

3.4.1 Firestop and smoke seal at:

.1 Penetrations through fire-resistance rated masonry, concrete, and gypsum board partitions and walls.
.2 Top of fire-resistance rated masonry and gypsum board partitions.
.3 Intersection of fire-resistance rated masonry and gypsum board partitions.
.4 Control and sway joints in fire-resistance rated masonry and gypsum board partitions and walls.
.5 Penetrations through fire-resistance rated floor slabs, ceilings and roofs.
.6 Openings and sleeves installed for future use through fire separations.
.7 Around mechanical and electrical assemblies penetrating fire separations.
.8 Rigid ducts: greater than 129 cm2: fire stopping to consist of bead of fire stopping material between retaining angle and fire separation and between retaining angle and duct, on each side of fire separation.

3.5 Clean Up

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

3.5.2 Remove temporary dams after initial set of fire stopping and smoke seal materials.

END OF SECTION 07270

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Description

1.2.1 Work Included

Provide sealants in the following locations at all new construction elements and / or intersection of new construction with existing building components.

a) exposed joints between intersecting dissimilar materials;
b) intersections of countertops and wall finish.

1.2.2 Related Work Specified Elsewhere

Bedding of thresholds provided by Section 06200; Glazing sealant beads by Section 08800; sealing of mechanical equipment, fittings by Division 15; sealing around electrical equipment by Division 16; sealing of joists in fire separations by Section 07270.

1.3 Samples

1.3.1 Submit samples of full colour range available of all exposed products for colour selection by Consultant.

1.4 Mock-up

1.4.1 Construct mock-up to show location, size, shape and depth of joints complete with back-up material, primer, caulking and sealant. Mock-up may be part of finished work.

1.4.2 Allow 24 hours for inspection of mock-up by Consultant before proceeding with sealant work.

1.5 Delivery, Storage and Handling

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

1.6 Environmental and Safety Requirements

1.6.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, disposal of hazardous materials, regarding labelling, and provision of material safety data sheets acceptable to Labour Canada.

1.6.2 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.

PART 2 PRODUCTS

2.1 Sealant Materials

2.1.1 Sealants acceptable for use on this project must be listed on CGSB Qualified Products List issued by CGSB Qualification Board for Joint Sealants. Where sealants are qualified with primers use only these primers.

2.1.2 Interior joints of Laminated Security Glazing : Tremco Proglaze SSG Clear Structural Silicone

2.1.3 Exterior perimeter of exterior steel and aluminum window frames: TREMCO Dymeric 240 FC.

2.1.4 Interior joints: TREMCO Proglaze Silicone Sealant

2.1.5 Exterior Masonry Control Joints

Tremco Dymeric - 240FC

2.1.6 Interior Masonry Control Joints

Tremco Mono

2.1.7 Window Stools / Millwork Intersections with Existing / New Construction

Tremco Proglaze, clear

2.1.8 Control Joints in Concrete Floor Slabs

Tremco THC - 900 self-levelling

2.1.9 Plumbing Fixture Intersections with Finishes

Tremco Tremsil200. Colours shall be selected by Consultant from Manf. standard range available.

2.2 Back-Up Materials

2.2.1 Circular cross section, Polyethylene, Urethane, Neoprene or Vinyl Foam
- .1 Extruded closed cell foam backer rod.
- .2 Size: oversize 30 to 50%.

2.2.2 Bond Breaker Tape

- .1 Polyethylene bond breaker tape which will not bond to sealant.

2.3 Joint Cleaner

2.3.1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant recommended by sealant manufacturer.

2.3.2 Primer: as recommended by manufacturer.

PART 3 EXECUTION

3.1 Preparation of Joint Surfaces

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

3.1.2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair work.

3.1.3 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.

3.1.4 Ensure joint surfaces are dry and frost free.

3.1.5 Prepare surfaces in accordance with manufacturer's directions.

3.2 Priming

3.2.1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and caulking.

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

3.3 Backup Material

3.3.1 Apply bond breaker tape where required to manufacturer's instructions.

3.3.2 Install joint filler to achieve correct joint depth and shape.

3.4 Mixing

3.4.1 Mix materials in strict accordance with sealant manufacturer's instructions.

3.5 Application

3.5.1 Sealant

.1 Apply sealant in accordance with manufacturer's instructions.
.2 Apply sealant in continuous beads.
.3 Apply sealant using gun with proper size nozzle.
.4 Use sufficient pressure to fill voids and joints solid.
.5 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
.6 Tool exposed surfaces to give slightly concave shape.
.7 Remove excess compound promptly as work progresses and upon completion.

3.5.2 Curing

.1 Cure sealants in accordance with sealant manufacturer's instructions.
.2 Do not cover up sealants until proper curing has taken place.

3.5.3 Clean-up

.1 Clean adjacent surfaces immediately and leave work neat and clean.
.2 Remove excess and droppings, using recommended cleaners as work progresses.
.3 Remove masking tape after initial set of sealant.

END OF SECTION 07900

PART 1 GENERAL

1.1 Conform to Division 01 General Conditions and Supplementary Conditions of the Contract.

1.2 WORK INCLUDED:

1.2.1 Provide the aluminum glazed security screens at the security reception counter as detailed on the drawings and as specified herein complete with all glazing gaskets, sealants, fasteners, shims, trim components.

1.3 RELATED SECTIONS

Section 08800 Glazing.

1.3 REFERENCES

A. ASTM International (ASTM):
   1. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
B. American National Standards Institute (ANSI):
   1. ANSI Z97.1 For safety glazing materials used in buildings.
C. Aluminum Association (AA)
   1. AA-M12-C22-A21 Clear anodized finish for architectural aluminum.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's data sheets for each product specified.
B. Product Revit Models (BIM): Compliant and acceptable BIM models for each product specified.

C. Shop Drawings: Submit manufacturer’s shop drawings for each product specified, including the following:
   1. Plans, elevations, details of construction and attachment to adjacent construction.
   2. Show anchorage locations and accessory items.
   3. Verify dimensions with field measurements prior to final production.
D. Verification samples: For each finish product specified, two samples a minimum of 3 inches by 5 inches (76 mm by 127 mm) representing actual product color.
E. Operation and Maintenance Data: Submit operation, maintenance, and cleaning information for products covered under this section.
F. Canadian Certificate of Origin: Manufacturer must supply with first submittal, an example of their Certificate of Origin declaring aluminum swing door and sidelight frames are wholly manufactured and assembled specifically in Canada, including city and Provincial locations.

1.5 QUALITY ASSURANCE

A. Manufacturer: Provide products manufactured by a company with a minimum of 10 years successful experience manufacturing similar products.
B. Single Source Requirements: Provide products from a single manufacturer.
C. Accessibility Requirements: Comply with requirements applicable in the jurisdiction of the project, including but not limited to OBC, ADA and ICC/ANSI A117.1 requirements as applicable.
D. Installer Qualifications: All products listed in this section are to be installed by the manufacturer with a minimum of 5 years experience and exemplary workmanship.
E. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer warranty requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations.

B. Inspect all components for damage upon delivery.
C. Storage:
   1. Store products in a secure enclosed area protected from the elements.
   2. Store products in manufacturer's packaging until ready for installation.
D. Handling:
   1. Handle with care and avoid any dents, scratches or damage to product.
   2. Remove all labels, stickers or protection after installation.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual measurements/openings by field measurements performed by the installer prior to release for fabrication. Recorded measurements to be indicated on shop drawings based on field measurements provided by the installer. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

B: A deflection track is required at the head of all security glazed screen framing.
Provide 20 mm deflection capacity for movement of the beams. Design of framing connections to resist lateral loading from public pushing on glazing. (10 psf) .

1.8 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard 5 year warranty for materials and workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURER

Commdoor S1450 series non thermally broken storefront glazing framing or equal by Windspec, Alumicor.. Frames shall be clear anodized aluminum extrusions of 6063 alloy with a T5 treatment. Minimum extrusion thickness shall be 3.2MM (.125") on exposed surfaces and 4.75MM (.187") on internal webs.
Filler panels: Custom formed /stock profiles as per drawings min. 3.2 mm thickness clear anodized aluminium finish to match framing.

PART 3 - EXECUTION

3.1 CONDITIONS
Do not begin installation until substrates have been properly prepared. Verify substrates are plumb and level.

3.2 INSTALLATION
Install products in strict compliance with manufacturer's written instructions and recommendations,
Fasteners and anchors suitable for substrate and project conditions. Fasteners to be fully concealed.
Ensure deflection tracks are installed at head of screen framing with 16mm capacity for movement.

END OF SECTION 08111

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Description

1.2.1 Supply and install finish hardware as per finish hardware schedule

1.2.2 Cylinders shall be keyed to the building standards.

1.2.3 Provide all necessary co-ordination and supervision of field installation.

1.2.4 The hardware supplier shall install the power door operators and wire the low voltage controls. The power supply for the door operator shall be installed by the owner’s designated electrical subcontractor Under the cash allowance provisions.

1.2.5 Inspect competed installation and verify proper hardware operation.

1.3 Reference Standards

1.3.1 Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufacturers Association.

1.4 Requirements of Regulatory Agencies

1.4.1 Use ULC listed and labelled hardware for doors in fire separations and exit doors.

1.5 Samples

1.5.1 Upon request submit samples of each type of hardware specified, in accordance with Section 01300.

1.6 Hardware List

1.6.1 Submit hardware schedule and catalogue cuts in accordance with Section 01300. List hardware, including make, model, material, function, finish and door number.

1.7 Maintenance Data

1.7.1 Provide maintenance data, parts list, and manufacturer's instructions for door closers, locksets, door holders and fire exit hardware for incorporation into maintenance manual specified in Section 01300.

1.7.2 Brief maintenance staff regarding proper care, cleaning, and general maintenance.

1.8 Maintenance Materials

1.8.1 Store finishing hardware in locked, clean and dry area.

1.8.2 Package each item of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.

1.8.3 Maintain inventory list with hardware schedule

PART 2 PRODUCTS

2.1.1 Hinges:

Stanley or Hager as scheduled.

2.1.2 Exit Devices: Von Duprin/Sargeant as Scheduled

Panic sets shall be mounted to ensure 65mm clearance between hinge jamb and end of panic set. Hardware shall be cut on site accordingly prior to panic set being mounted to door.

2.1.4 Interior Door Closers: LCN or Sargeant

As scheduled.

2.1.5 Locksets and Latchsets
As scheduled. **630 finish.**

2.1.6 Door, Pulls, Push-plates and Kickplates

As scheduled. Finish 630 (satin stainless steel). All edges shall be ground smooth to eliminate all sharp edges.

2.1.7 Door Stops

As scheduled.

2.2 Fastenings

2.2.1 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation and operation of hardware.

2.2.2 Exposed fastening devices to match finish of hardware.

2.2.3 Where pull is scheduled on one side of door and push plate on other side, supply fastening devices, and install so pull can be secured through door from reverse side. Install push plate to cover fasteners.

2.2.4 Use fasteners compatible with material through which they pass.

2.3 Hardware Mounting

2.3.1 Provide templates to section 06200, 08111; 08200, 08550.

PART 3 EXECUTION

3.1 Installation Instructions

3.1.1 Furnish door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.

3.1.2 Where door stop contacts door pulls, mount stop to strike bottom of pull.

3.2 Supplier

3.2.1 Supplier shall be responsible for the administration and servicing of the hardware contract. Personnel administering this Section shall be A.H.C. or equal experience.

3.2.2 The Hardware Specialist shall make periodic inspections of the hardware installations and shall expedite the correction of defective hardware. This specialist shall attend site meetings when so requested.

3.3 Shipping

3.3.1 All items of hardware shall be delivered to the job site packaged. Each item shall be clearly marked with proper opening number and item number for proper location.

3.4 Finishing Hardware Schedule

3.4.1 Receive and install the following finishing hardware as itemized hereafter:

Finish Hardware Schedule:

Set # 1

1 SGLE. DR. # D01 EXISTING PUBLIC CORRIDOR TO STAFF AREA 226 RH

1 - EXISTING HM FRAME & WOOD DOOR REMAIN

Qty			
4	EA	HINGES	EXISTING REMAINS
1	EA	STOREROOM LOCKSET	EXISTING REMAINS
1	EA	ELECTRIC STRIKE AND CARD READER SUPPLIED AND INSTALLED BY OWNER.	
1	EA	SECURTITY SWIPE	EXISTING TO REMAIN
1	EA	DOOR OPERATOR	SW200i X SINGLE HSG X 628
2	EA	CAMDEN PUSH TO OPEN BUTTON	#CM- RFL454SA ACUATORS COMPLETE WITH 2 TRANSMITTERS, 2 SURFACE MOUNTED BOXES.
1	EA	INTERFACE UNIT	AT PDO TO SUIT CAMDEN WIRELESS ACTUATORS.

POWER DOOR OPERATOR INSTALLER TO CONNECT THE WIRELESS TRANSMITTERS TO THE PDO INTERFACE. MOUNT PUSH BUTTON ACUATORS 1000MM AFF TO CENTRELINE. POWER OPERATOR TO BE MOUNTED ON PUBLIC CORRIDOR SIDE OF EXISTING DOOR

END OF SECTION 08710

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Description

1.2.1 Work Included

a) Provide interior glazing as specified herein and as described on the drawings for the new Aluminium Glazed security screens.

1.2.2 Related Work

a) Aluminium Glazed Security Screens Section 08111

1.3 References

1.3.1 ASTM C542-82(1984) Specification for Lock-Strip Gaskets.
1.3.2 CGSB 19-GP-5M-76 Sealing Compound, One Component, Acrylic Base, Solvent Curing.
1.3.3 CAN/CGSB-19.6-2017 Caulking Compound, Oil Base.
1.3.4 CAN/CGSB-19.13-2017 Sealing Compound, One Component, Elastomeric, Chemical Curing.
1.3.5 CAN/CGSB-19.18-2017 Sealing Compound, One-Component, Silicone Base, Solvent Curing.
1.3.6 CAN/CGSB-19.24-M80 Sealing Compound, Multi-Component, Chemical Curing.
1.3.7 CAN/CGSB-12.1-2017 Glass, Safety, Tempered or Laminated.
1.3.8 CAN/CGSB-12.2-2017 Glass, Sheet, Flat, Clear.
1.3.9 CAN/CGSB-12.3-2017 Glass, Polished Plate or Float, Flat, Clear.
1.3.10 CAN/CGSB-12.8-2017 Insulating Glass Units.

PART 2 PRODUCTS

2.1 Glass Materials

2.1.1 **Pilkington Opti-White low iron extra clear 8.0 m thick laminated safety glass**

2.2 Glazing and Sealing Compound Materials

2.2.1 Only compounds listed on the CGSB Qualified Products List are acceptable for use on this project.

2.2.2 Glazing compound: oil base, to CAN/CGSB-19.6, Type 1.

2.2.3 Sealant compound: one component, silicone base, solvent curing to CAN/CGSB-19.18.

2.2.4 Sealant compound: multi-component, chemical curing to CAN/CGSB-19.24, type 2, class A.

2.2.5 Interior glazing tapes: performed butyl tape 10 - 15 durometer hardness.

2.2.6 Setting blocks: neoprene, Shore "A" durometer hardness 70-90.

2.2.7 Spacer shims: neoprene, Shore "A" durometer hardness 40-50.

2.2.8 Glazing splines: neoprene manufacturer's standard dry glazing splines to suit aluminium extrusions, black colour.

2.2.9 Lock-strip gaskets: black neoprene to ASTM C542. Injection mould one-piece corner sections and heat-seal to main gasket.

2.2.10 Primer-sealers and cleaners: to glass manufacturer's standard.

2.2.11 **Structural silicon glazing panel sealant Tremco Proglaze SSG Clear**.

PART 3 EXECUTION

3.1 Workmanship

3.1.1 Remove protective coatings and clean contact surfaces with solvent and wipe dry.

3.1.2 Apply primer-sealer to contact surfaces.

3.1.3 Place setting blocks as per manufacturer's instructions.

3.1.4 Install glass, rest on setting blocks, ensure full contact and adhesion at perimeter.

3.1.5 Install removable stops, without displacing tape or sealant.

3.1.6 Provide edge clearance of 3 mm minimum.

3.1.7 Insert spacer shims to centre glass in space. Place shims at 600mm on centre and keep 6 mm below sight line.

3.1.8 Do not cut or abrade tempered, heat treated, or coated glass.

3.1.9 Provide all openings in the glazed screens as detailed on the drawings and drilled openings for the wiring at each of the bi-directional communication speaker mount locations. All edges to be ground smooth with edges eased at pass thru openings.

3.2 Glazing

3.2.1 Prior to installation, examine openings and frames prepared by other trades into which glass is to be installed. Notify Consultant of conditions which will prevent proper installation of Work of this Section. Do not glaze unsatisfactory locations until such conditions have been made good. Commencement of Work implies acceptance of previous Work as satisfactory.

3.2.2 Job check dimensions prior to cutting glass.

3.2.3 Cut individual lights of glass less than measured opening into which glass will fit, within clearances, cover dimensions and tolerances given under Glazing Details of Glazing Manual – 2023 by Flat Glass Marketing Association.

3.2.4 Install using sealing tapes, setting blocks beneath glass and spacer shims between face of glass and stops, at interior and exterior face of glass in accordance with Part IV, Glazing Sealing Systems Manual.

3.2.5 Interior Screens

3.2.6 Glaze in conformance with FGMA Setting No. 43 (setting blocks, plain glazing tape both sides, one removable stop).

3.2.8 Label each pane of laminated glass with registered name of product, weight and quality of glass.

3.3 Glazing Schedule

3.3.1 **Interior Non-Fire Rated Aluminium Screens and Sidelights**

8.0 mm clear laminated Pilkington Opti-White Low Iron extra clear.

END OF SECTION 08800

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply to all pertinent sections and articles in Division 1 - General Requirements

1.2 Work Included

1.2.1 Provide metal stud partition faming complete with all lateral bracing, top and bottom tracks, deflection tracks, fasteners, related accessories at all new partition locations as indicated on the drawings and as specified herein.

92mm galvanized steel studs, 20ga.

1.2.2 Provide supplemental furring, framing, pipe riser enclosures, as required to fit new work to existing construction including interior bulkheads and cutting and patching of existing ceiling finishes. Provide built up sections as described on drawings.

1.2.3 All of the above as described on the drawings and as specified herein.

1.3 Quality Assurance

1.3.1 Conform to requirements of ULC for fire rated systems. Refer to drawings for specific design requirements.

PART 2 PRODUCTS

2.1 Non-Bearing Interior Bulkheads / Pipe Space / Furring

2.1.1 Non-load bearing channel stud framing: to ASTM C645-83, roll formed from 18ga thickness galvanized steel sheet, for screw attachment of gypsum board. Knock-out service holes at 460 mm centres. Sizes as indicated on the drawings.

2.1.2 Floor and ceiling tracks: to ASTM C645-83, in widths to suit stud sizes, 32 mm flange height.

2.1.3 Metal channel stiffener: 64 x 22 mm size, 1.4 mm thick cold rolled steel, coated with rust inhibitive coating.

2.1.4 Acoustical sealant: to CGSB 19-GP-21M.

2.1.5 Insulating strip: rubberized, moisture resistance 3 mm thick foam strip, 12 mm wide, with self-stick adhesive on one face, lengths as required.

2.1.6 Metal Framing

22mm x 64mm x 20ga. galvanized sheet steel.
22mm x 64mm x 20ga.
22mm x 92mm x 20ga
22mm x 152mm x 18ga.

2.1.7 Tie wire: 161 wg annealed galvanized wire.

2.1.8 Hangers: minimum 9 gauge galvanized.

2.2 Structural Metal - Stud System Wall

2.2.1 Structural metal studs shall be minimum 18 gauge, 152mm deep spaced at maximum 16"

centres. The studs shall be securely fixed at top and finished floor with continuous horizontal bracing through studs at mid-point, or as noted on drawings. Acceptable manufacturer by Bailey Metal Products / Mantane / or Canadian Steel Manufacturing Inc.

2.2.2 Fasteners

Refer to structural drawings for fastener requirements.

2.2.3 Bridging Channels

38 x 12.5 x 1.22mm continuous through the knockout with 32 x 32 x 1.52 x 140mm long clip angles at each stud. Connect bridging channel to clip angles and clip angles to studs with 2 - #10 S.M.S.

2.2.4 Deflection Tracks

18ga galvanized Z180 as per ASTM 525M. Size to accommodate defection referenced on drawings. Bailey metals Multi Slot Deflection Track MST 250 with 64 mm leg.

PART 3 EXECUTION

3.1 Erection Stud Systems

3.1.1 Align deflection and base tracks and secure at 400 mm o/c maximum.

3.1.2 Place studs vertically at 16" oc and not more than 2" from abutting walls, and at each side of openings and corners. Position studs in tracks at floor and ceiling. Cross brace steel studs as required to provide rigid installation to manufacturer's instructions. Distance between top of stud and inner track shall not exceed 4mm. Deflection track shall allow 20mm movement of the stud top track.

3.1.3 Erect metal studding to tolerance of 1:1000.

3.1.4 Co-ordinate erection of studs with installation of windows, curtain wall framing and special supports or anchorage for work specified in other Sections.

3.1.5 Install 12GA closures, lintels and as indicated on drawings.

3.1.6 Install steel studs or furring channel between studs for attaching electrical and other boxes.

3.1.7 Maintain clearance under beams and structural slabs to avoid transmission of structural loads to non-bearing studs. Use 50 mm leg ceiling tracks.

3.1.8 All of the above as described on the drawings.

END OF SECTION 09111

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Work Included at Alteration Areas

1.2.1 Provide gypsum wall, ceiling finishes and bulkheads as indicated on the drawings and as specified herein.

1.2.2 Provide all suspension system components, hanger wires, suspension anchors, furring, lateral bracing for the above noted locations.

1.2.3 All required cutting and patching of existing gypsum board ceilings, bulkheads and pipe spaces as required to fit new construction to existing including sprinkler head relocates.

1.2.4 Provide 1ceiling mounted access door 16” x 16” to be mounted in the existing gypsum board Ceiling. Exact location to be confirmed on site during construction.
Contractor to include framing to support the metal access door. (non-rated).

1.3 Related Work

1.3.1 Acoustic ceilings section #09130.

1.4 Reference Standards

1.4.1 Do work in accordance with CSA A82.31-M1991 except where specified otherwise.

1.4.2 Conform to the requirements of ULC and OBC Supplementary Guidelines for fire rated systems. Refer to drawings for specific design requirements.

PART 2 PRODUCTS

2.1 Fire Rated Gypsum Board - Abuse Resistant

2.1.1 5/8" sheet rock fire-code X core gypsum panels, 4'-0" wide x maximum practical length as manufactured by Canadian Gypsum Company or equal by Certain-teed, Westroc Inc.

2.1.2 Water Resistant

Sheetrock Brand W/R Gypsum panels 5/8" thick. 4' wide x maximum practical length as manuf. by Canadian Gypsum Company or manuf. listed above.

2.2 Metal Furring and Suspension Systems

2.2.1 Metal furring runners, hangers, tie wires, inserts, anchors: to CSA A82.30-M1980, galvanized by section 09111, Metal Stud Systems. CH studs as per scheduled ULC shaft wall design.

2.2.2 Drywall furring channels: 0.5 mm core thickness galvanized steel channels for screw attachment of gypsum board.

2.3 Fastenings and Adhesives

2.3.1 Nails, screws and staples: to CSA A82.32-M1980.

2.3.2 Stud adhesive: to CGSB 71-GP-25M-77.

2.3.3 Laminating compound: as recommended by substrate manufacturer, asbestos-free.

2.4 Accessories

2.4.1 Casing beads, corner beads fill type: 0.5 mm base thickness commercial grade sheet steel with Z275 zinc finish to ASTM A525-86, perforated flanges; one piece length per location.

2.4.2 Joint compound: to CSA A82.32-M1980, asbestos-free.

PART 3 EXECUTION

3.1 Suspended and Furred Ceilings

3.1.1 Erect hangers and runner channels for suspended gypsum board ceilings in accordance with CSA A82.81-M1980 except where specified otherwise.

3.1.2 Support light fixtures by providing additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.

3.1.3 Install work level to tolerance of 1:1200.

3.1.4 Frame with furring channels, perimeter of openings for access panels, light fixtures, diffusers, grilles.

3.1.5 Install 19 x 64 mm furring channels parallel to, and at exact locations of steel stud partition header track.

3.2 Ceiling / Bulkheads / Pipe Spaces

3.2.1 Furr for gypsum board faced vertical bulkheads within and at termination of ceilings.

3.2.2 Furr for suspended ceilings and form gypsum board fire and sound stops and to form plenum areas as indicated.

3.3 Gypsum Board Application

3.3.1 Do not apply gypsum board until electrical and mechanical work are reviewed by Consultant and authorities having jurisdiction ie. Hydro Inspection and pipe insulation, plumbing inspection approvals have been obtained.

3.3.2 Non-Rated Assemblies:

Apply single layer gypsum board layer as scheduled on the drawings to metal furring or framing using screw fasteners. Maximum spacing of screws 300 mm o/c.

3.3.3 Fire Rated Wall Assemblies

As per ULC designs indicated on the OBC data Matrix.

3.4 Fire Rated Ceiling Assemblies

3.4.1 Construct fire rated assemblies where indicated.

3.4.2 Abuse Resistant Walls

Erect furring maximum 400mm centres. Install wallboard with fasteners maximum 300 centres.

3.5 Accessories

3.5.1 Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Secure at 150 mm oc.

3.5.2 Install casing beads around perimeter of suspended ceilings.

3.5.3 Install casing beads where gypsum board butts against surfaces having no trim concealing junction and where indicated.

3.6 Control Joints

3.6.1 Construct control joints of preformed units set in gypsum board facing and supported independently on both sides of joint.

3.6.2 Provide continuous polyethylene dust barrier behind and across control joints.

3.6.3 Locate control joints where indicated and at changes in substrate construction.

3.6.4 Install control joints straight and true.

3.7 Taping and Filling

3.7.1 Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces.

3.7.2 Finish corner beads, control joints and trim as required with two coats of joint compound and one coat of taping compound, feathered out onto panel faces.

3.7.3 Fill screw head depressions with joint and taping compounds to bring flush with adjacent surface of gypsum board to be invisible after surface finish is completed.

3.7.4 Sand lightly to remove burred edges and other imperfections. Avoid sanding adjacent surface of board.

3.7.5 Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.

END OF SECTION 09250

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 **Work Included - Alteration Area**

1.2.1 a) Provide new fire rated acoustic tile ceiling complete with all suspension systems, framing, trim components, suspension grid and related accessories at locations indicated at Staff side of Security Reception Area including cutting and patching to fit new construction to existing.

b) All new and relocated light fixtures shall be independently supported by division 16 (chained to structure) and this section shall provide additional hanger wires at 2 corners of each light fixture.

1.2.3 Supply 1 additional sealed case of new ceiling tile ACT 1 for maintenance purposes.

1.2.4 All of the above as described on the drawings and as herein specified.

1.3 Related Work

1.3.1 Suspension systems for gypsum board ceilings: Section 09250

1.3.2 Trim for recessed mechanical fixtures: Division 15

1.3.3 Trim for recessed light fixtures Division 16

1.4 References

1.4.1 ASTM C635-87 Specifications for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.

1.4.2 ASTM C636-86 Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.

1.5 Design Criteria

1.5.1 Maximum deflection: 1/360th of span to ASTM C635 deflection test. Design suspension system to safely support the superimposed loads of lighting fixtures; air supply diffusers, return air grilles.

1.6 Samples

1.6.1 Submit 2 (two) 300 x 300 tile samples of each type in accordance with Section 01300 - Submittals.

PART 2 PRODUCTS

2.1 Hanger Wire
2.5mm galvanized steel wire twist tied to bottom chord of joists.

2.1.2 Suspension Members
DONN DXL white satin sheen 2'-0" x 4'-0" (610 x 1220) module 15/16" wide at exposed face. Main tees nominally 12'-0" length **heavy duty grid.**

2.1.3 **Acoustic tile - Type 1**
USG Radar Climaplus, FireCode 2'-0" x 4' -0" x 15/16" mineral fibre tile fire rated fissured square edged, colour white NRC 0.55 LR 0.84 or equal by Armstrong or Rockfon or Certainteed. Pattern to match existing. Fire rating for flame spread reduction.

PART 3 EXECUTION

3.1 Installation

3.1.1 Install suspension system to manufacturer's instructions and requirements.

3.1.2 The ceiling grid system shall be anchored to the bottom chord of the existing concrete floor structure with self-drilling anchors.

3.1.3 **Direct anchorage to ductwork, piping or conduit is prohibited.**

3.1.4 Do not erect ceiling suspension system until work above ceiling plenum has been inspected by Consultant.

3.1.5 Install hangers on main tees spaced at maximum 1200mm centres and within 150mm from ends of main tees. Provide additional hangers at corners of light fixtures and cross tees as set forth in ULC designs. Hanger wires shall have **minimum 3 wraps** at each connection point.

3.1.6 Lay out system according to architectural reflected ceiling plan.

3.1.7 Ensure suspension system is coordinated with location of related division 15 and 16 components.

3.1.8 Install wall mould to provide correct ceiling height.

3.1.9 Completed suspension system to support superimposed loads, such as lighting fixtures, diffusers and speakers.

3.1.10 Support at light fixtures and diffusers with additional ceiling suspension hangers within 150mm of each corner. Accurately cut ceiling tiles around all recessed light fixtures and related components.

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

3.1.12 Install hold down clips after the communications, controls, security cabling is completed. Locations of the accessible hold down clips will be as directed on site by the consultant.

3.2 Cleaning

3.2.1 Touch up scratches, abrasions, voids, and other defects in painted surfaces.

END OF SECTION 09130

PART 1 GENERAL

1.1 Conditions

1.1.1 The work associated with this section shall comply with the pertinent sections and articles in Division 1 - General Requirements.

1.2 Work Included

1.2.1 Within the Alteration Areas paint new gypsum board bulkheads, new gypsum board wall and ceiling finishes, gypsum board repair areas at cutting and patching locations.

1.2.2 Prepare existing wall surfaces and apply two finish coats of paint as scheduled from top of cove base to the underside of existing ceiling finish.

1.2.3 All of the above as indicated on the drawings and as specified herein.

1.2.4 All required cutting and patching areas shall be painted in accordance with the provisions of this section.

1.3 Work Not Included

1.3.1 Do not paint structural steel scheduled for fireproofing.

1.3.2 Do not paint acoustic ceilings, anodized aluminium, baked enamel finished metals, plastics, toilet partitions, hardware or other surfaces obviously not intended to be painted, except as noted otherwise.

1.3.3 Do not paint natural clay brick finishes.

1.3.4 Do not paint prefinished convector cabinets.

1.3.5 Do not paint prefinished wood doors by section 08200.

1.3.6 Architectural woodwork is factory prefinished by section 06400.

1.4 Colour Schedule

1.4.1 A colour schedule will be issued by the Consultant. A maximum of 2 wall colours will be used. Allow maximum of 10% deep tint paints for wall colour selection. Bulkheads will be painted accent colours (maximum 1).

1.5 Samples

1.5.1 Submit 2 paint samples of each colour in accordance with Section 01300. Paint samples shall be on an 8 1/2" x 11" format.

1.6 Environmental Requirements

1.6.1 Do not apply paint finish in areas where dust is being generated. Moisture content shall be verified prior to commencement of work of this section. Building temperature shall be maintained at minimum 15 degrees Celsius.

PART 2 PRODUCTS

2.1 Materials

2.1.1 Paint materials for each coating formulae to be products of Glidden manufacturer or equal by Sico, Benjamin Moore, Dulux or Sherwin Williams.

PART 3 EXECUTION

3.1 Preparation of Surfaces

3.1.1 Existing previously painted concrete block and drywall surfaces shall be sanded with #80 grit. All former fastener holes shall be filled with dura-bond 90 and sanded. Cracks shall be filled with paintable sealant.

3.1.2 Wall surface shall be washed with tri-sodium phosphate and water to degrease surface in preparation for primer application.

3.2 Application

3.2.1 Sand and dust between each coat to remove defects visible from distance up to 1.0 metre.

3.3 Interior Finish Schedule

3.3.1 **New Gypsum Wall Finishes**

1 coat Glidden Professional Lifemaster NoVOC #9116
2 coats Glidden Professional Lifemaster NoVOC #9200, semi-gloss

Existing Gypsum Board Wall Finishes

2 coats Glidden Professional Lifemaster No. VOC #9200, semi-gloss

New Gypsum Board Ceiling Finishes

1 coat Glidden Professional Lifemaster No VOC #9116
2 coats Glidden Professional Lifemaster No VOC #9300, eggshell

New Concrete Block Wall Finishes

1 coat Glidden Professional Lifemaster No VOC #3010, block filler
2 coats Glidden Professional Lifemaster NoVOC #9200, semi-gloss

Existing Concrete Block Wall Finishes

2 coats Devoe WB acrylic #4216 semi-gloss

Unprimed Ferrous Metal Doors and Frames - Interior Locations

1 coat Devoe DEVFLEX #4020 primer
2 coats Glidden Professional Diamond 3450 7400 semi-gloss

Exterior Hollow Metal Doors, Frames (New and Existing)

1 coat Devoe DEVGUARD Low Voc, universal primer #4360
2 coats Devoe DEVGUARD rust preventative enamel #4306 semi-gloss

Existing Hollow Metal Doors / Door Frames - Interior Locations

1 coat Devoe DEVFLEX #4020 primer
2 coats Glidden Profressional Diamond 3450 7400 semi-gloss

Handrails and Risers / Ferrous Metals

1 coat Devoe DEVFLEX #4020 primer
2 coats Glidden Professional Lifemaster NoVOC #9400, gloss

Galvanized Steel Deck / OWSJ

1 coat Devoe DEVFLEX #4020 primer
2 coats Devoe DEVFLEX High Performance WB acrylic #4212 eggshell

3.4 Climatic Conditions

3.4.1 Exterior finish shall not be applied while the surface is damp, or during cold, rainy or frosty winter weather or when the temperature is likely to drop freezing. Avoid finishing surfaces while they are exposed to hot sun.

3.5 Unpainted Metals

3.5.1 Anodized aluminium, bronze, chromium plate, nickel, stainless steel and misc. metal, shall not be painted or finished unless specified. Otherwise, all exposed piping, conduit, and lintels shall be painted.

3.6 General

3.6.1 Paint finish shall be applied by roller except in the case of wood trim, metal frames, stair stringers, and similar work of small surface area which shall be painted by brush. Do not use roller for applying finish other than paint.

3.6.2 Spray painting will be permitted subject to adequate measures to control overspray.

3.6.3 Permit paint to dry between coats. Touch up suction spots after applying first coat. Tint various coats of multiple coat work in light shades of the final colour selected, to distinguish between coats. Give Consultant due notice and sufficient opportunity (maximum 48 hours) to inspect each coat. Do not proceed with subsequent coat unit preceding coat approved. Consultant reserves the right to order complete retreatment if this condition is not observed.

3.6.4 Painting coats are intended to cover surfaces perfectly; if in painter's opinion, formula specified is inadequate to provide a first class finished surface, report to the Consultant before commencing work. Surface imperfectly covered shall receive additional coats at no additional costs.

3.6.5 Use paint unadulterated. Use same brand of paint for primer, intermediate and finish coats. Factory mix all paints.

3.6.6 All surfaces finished by this section shall be uniform in sheen, colour, and texture, free from brush or roller marks, runs, join marks or other defects.

3.7 Patching

3.7.1 Repairs made during construction or warranty period shall be refinished in a manner such that the repair is not visible at 3’-0" (1.0 metres).

3.7.2 If repair is not acceptable, repaint entire wall section, ceiling or bulkhead as applicable.

3.8 Maintenance Supplies

3.8.1 Supply one 4L can of each colour to the Owner upon completion of the work. Place where directed on site.

3.9 Clean-Up

3.9.1 Remove all paint rags, used thinners, used rollers, brushes, debris and empty paint cans from the job site daily.

END OF SECTION 09900