INDEX TO SPECIFICATIONS

The Corporation of the City of Oshawa

INTERIOR OFFICE ALTERATIONS
CITY HALL
BUILDING DEPARTMENT RUNDLE TOWER
50 Centre Street South, Oshawa, ON

PART 1: THE PROJECT SPECIFICATIONS MANUAL

VOLUME 1 ARCHITECTURAL
Divisions 00 - 09

DIVISION 00: CONTRACT REQUIREMENTS

DIVISION 01: GENERAL REQUIREMENTS

DIVISION 02: SITEWORK

DIVISION 03: CONCRETE

DIVISION 04: MASONRY

Section No. Section Title
Not Applicable

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DIVISION 07: THERMAL AND MOISTURE PROTECTION

DIVISION 08: DOORS AND WINDOWS

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E-04	Electrical Specifications	1	September 20, 2024
E-05	Electrical Lighting Demolition Plan	1	September 20, 2024
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E-08	Electrical Power and Systems Plan	1	September 20, 2024
E-09	Details	1	September 20, 2024
E-10	Details	1	September 20, 2024

END OF SECTION 00010

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 areas.

1.2.3 Construction access shall be through the Basement Parking Garage exterior doors .

1.2.4 Contractor shall provide a 2400 mm height temporary Iomega or Fast Fence fenced construction compound located as set forth on Drawing A104 R3. Compound shall be 6.0 m x 7.2 m. Contractor shall be responsible for securing this compound. Disposal bins and temporary sanitary facilities shall be maintained within the compound. The City will designate a limited contractor parking area in the basement Parking Garage City Hall (5 spaces).

1.2.5 Provide temporary dust tight 6 mil polyethylene barriers at active work zones. Acceptable systems Zip Wall dust barrier with magnetic or mechanical clips to the existing ceiling grid or equal. Flame spread of the polyethene barrier material shall not exceed 150.

1.2.6 Dust tight barriers shall be full height from finish floor to the underside of the acoustic ceiling (3000 mm height) Brace the barriers as required to prevent overturning..

1.2.7 The Owner will designate one washroom in the basement parking garage for use by the contractor's forces during construction.

12.8 The Contractor shall provide a 3.6 m x 3.6 m temporary 2400 mm ht barrier in the parking garage directly under the scheduled alterations to the existing duct shaft at the infill area for the new slab area in washroom 104 (Phase 4).

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

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 – 7pm Monday- Sunday except the shaft selective demolition operations in washroom 104, the structural modifications for the concrete slab infill, the 2hr fire rated shaft wall, temporary disconnections of domestic water lines and sanitary drains for the modifications to room 104 shall be performed off hours (Weekend Work).
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 Modifications to the fire alarm and EVAC system shall be coordinated with the Designated Project Manager City of Oshawa Facility Services, City of Oshawa Fire Department and 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 is responsible for scanning the existing structural concrete floor slab prior to drilling operations for the scheduled fasteners connecting new structural elements to existing. .

1.2.17 Contractor shall scan scheduled locations for floor track and PC 350 framing to ensure not penetrating cast in electrical conductors.

1.2.18 Concrete saw cutting and coring must be done off hours ..

1.2.19 A hot work permit is required for all soldering, welding or cutting operations.

1.2.20 Site meetings will be held bi-weekly and minutes provided by the Contractor.

1.2.21 Contractor shall also include for freezing the domestic water lines at the disconnect and new connection points as the existing isolation valves may not be operational. Provide additional isolation valves as required to implement the work.

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

1.2.23 The existing building structural frame is cast in place concrete. Coring of drop panels, cols and beams is prohibited. The Ground Floor Structural Slab is 12” Thick.

1.2.24 The electrical drawings include the rough in of conduit for data drops in the wall construction.to the ceiling plenum. These shall be installed by the electrical division and provided with stainless steel cover plates. The contract documents include a cash allowance for the data cabling and connections to the existing hub rack by the Owner’s prequalified network infrastructure subcontractor.. Cost of the subcontractor will be disbursed thru the Cash Allowance Provisions of the Contract.

1.2.25 The Owner will retain and arrange for a moving company to dismount workstations, and computer equipment, telephones, books, copiers, printers, plotters, microfiche equipment as the phases progress. Owner’s moving company will reinstall the workstations and computer equipment. The owner’s prequalified data and communications installer will install the data and communications, security devices under the cash allowance provisions of the contract. Contractor’s electrician is responsible for installing conduit rough in and boxes with pull strings to the ceiling plenum for the scheduled devices. Refer to Electrical drawings.

1.2.26 The Supply and installation of the new EVAC speakers shall be carried by the Contractor. Refer to the new reflected ceiling plans on the Architectural drawings for locations. Contractor shall retain a certified installer for the EVAC system speaker modifications. The Evac speakers are specified on the architectural reflected ceiling plan.

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

1.2.28 Use of the City’s equipment and ladders is prohibited.

1.2.29 The City’s project manager will designate a location for the contractor to access water for construction operations. The City’s Maintenance Forces will erect the elevator protection pads for scheduled material and demolition debris transport to the lower level (parking garage).

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 shall proceed sequentially within the Alteration Area.

Phase One:
Office's 116, 117, and 118 including the adjoining corridor ceiling alterations.

Phase Two:
New meeting room 111, new closet and microfiche station room 109

Phase Three: .
Additional Building Inspection Work Area 106 and related ceiling cutting and patching rm 101

Phase Four:
Washroom Alterations room 104 and installation of the Dura-systems 2 hr fire rated enclosure at base of the mech. shaft.

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 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, cast in place concrete, structural steel, misc. metals, rough carpentry, finish carpentry, millwork, fire stopping and smoke seals, joint sealants, aluminium door and glazed screen framing system, wood doors, finish hardware, Carpet tile, porcelain floor tile, metal stud systems, gypsum board, acoustic ceilings, painting, Washroom accessories, phenolic toiler partition, as set forth on the drawings and as specified herein.

1.2.42 Contractor shall provide all mechanical and electrical modifications to the existing alteration areas as set forth on the drawings and as specified herein.

1.2.43 Provide temporary heat, power, lighting, sanitary facilities, telephone and weather protection

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

1.2.45 Division 16 is responsible for the costs of obtaining the ESA permit, ESA inspections and certificate; independent verification of all fire alarm devices installed or modified during execution of the work of this contract, testing and certification of the emergency lighting and EVAC speaker modifications.

1.2.46 Mechanical subcontractor is responsible for air balancing on diffuser relocates.

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

1.2.48 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 has paid for and obtained the Building Permit. Owner will provide a printed copy of the Building Permit Drawings and Permit Card to the Contractor.

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

1.3.3 Door 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 (to) the Consultant" follow.

2.1.5 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 (to) the Consultant" follow.

2.1.6 The contractor shall maintain the existing fire alarm and security system fully operational throughout the duration of construction. The contractor shall be responsible for verification of any modifications to the fire alarm system by a qualified independent inspection agency.

2.1.7 The contractor shall ensure that all construction personnel do not enter the occupied portions of City Hall outside of the alteration area.

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 his 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 building is 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, the building permit is received 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 herein.

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 Contractor shall chair and minute bi- weekly construction meetings throughout the duration of the construction.

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.

8.3 The accurate location, depth, size and type of each underground utility and service line shall be recorded before concealment to ensure accurately directed future access to these concealed services.

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 lubricating, repair and other instructions to keep all mechanical and electrical / electronic equipment in good working order. Reviewed shop drawings of mechanical and electrical equipment.

d) Final hardware schedule, including lock manufacturer's descriptive and service literature.

e) Maintenance instructions for all types of floor finish and other special finishes.

f) Maintenance and service instructions and manufacturer's literature for all special architectural features - window hardware sources, 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; Fire Alarm Verification, Emergency Lighting Verification and Extended Warranties.

9.3 The cover of each binder shall bear:

9.3.1 **Name of Project**: **City of Oshawa Building Department Office Alterations**

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 with digital photographs, each recording the construction progress.

END OF SECTION 01300

PART 1 DESCRIPTION

1.1 Requirements Included: General Instructions

1.2 Related Requirements: GC.25, "Contractor's responsibility and control of the Work@

PART 2 EXAMINATION/REVISIONS

2.1 **The Contractor affirms that before tendering the Contractor did examine the Site** and ascertain the extent and nature of all conditions affecting the performance of the Work including the location of all underground services which may have to be removed, relocated or protected.

2.2 **The Contractor affirms that before tendering the Contractor did examine the Specifications, Drawings and other Tender documents thoroughly**. It shall be assumed that the Contractor thoroughly understands these documents.

2.3 Drawings are intended to convey the scope of the Work and indicate general and approximate location, size and configuration of equipment, fixtures, ducts, piping, conduit, outlets. Obtain more accurate information about the location, arrangement, connectors and sizes from co-ordination of Shop drawings, field conditions, Specifications and the Drawings including architectural, structural, mechanical and electrical discussions. Where field conditions require reasonable changes in indicated location and arrangements/make such changes at **no extra cost** to the Owner.

2.4 Inform the Consultant of all problems encountered. Make no revisions without the Consultant's knowledge and approvals.

PART 3 SERVICES AND UTILITIES

3.1 Verify the location and/or availability of sewers, gas, water, telephone, electrical, etc. within the building site, adjoining properties, sidewalks, streets, etc. Contractor shall immediately notify the Consultant of any variance with the provisions of the Contract Documents.

3.2 Protect, relocate or maintain existing active services whenever they are encountered.

3.3 Cap off inactive services and remove the unwanted sections to the approval of the authorities, public utilities and/or the Consultant.

3.4 In the event of damage to active services, notify the Utilities, Authorities and the Consultant immediately. Make all required repairs under the direction of the appropriate utility. Pay all costs of such repairs including overtime as required to restore service(s).

PART 4 FINISHED DIMENSIONS AND ELEVATIONS

4.1 Finished work shall be plumb, flush, true to lines, levels and accurate in all respects. Provide all required dimensional co-ordination between the various sections of the Work including field engineering.

PART 5 DAILY RECORD

5.1 The Contractor shall maintain a daily written record on Site outlining the progress of the Work; Daily weather conditions; number of men engaged on the Work daily including Subcontractors; commencement and completion dates of all trades, sections of the Work; conditions such as strikes, manufacturing delays affecting the execution of the Contract.

5.2 This record shall be open to inspection by the Consultant upon request.

PART 6 CONSTRUCTION SCHEDULE

6.1 Post a copy of the Construction Schedule in the Site office. Update the schedule on a weekly basis.

PART 7 MODULAR CO-ORDINATION

7.1 The Work incorporates both metric and imperial components. Conform to the modular unit and joint requirements for all components.

PART 8 MANUFACTURER'S INSTRUCTIONS

8.1 The specifications are not intended as a detailed description of installation methods but serve to indicate particular requirements in the completed work.

8.2 Where the specifications do not provide all information necessary for complete installation of an item, then the manufacturer's instructions for first quality workmanship shall be strictly complied with.

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

PART 9 FASTENINGS

9.1 Supply all fastenings, anchors and accessories and adhesive required for fabrication and erection of the Work. Exposed metal fastenings and accessories shall be of same texture, colour and finish as base metal on which they occur. Keep exposed fastenings to a minimum, evenly spread and laid out. Exposed means visible by the occupants at Completion of the Work, unless scheduled, indicated or specified otherwise.

9.2 Metal fastenings shall be of the same material as the metal component they are anchoring or of a metal which will not set up an electrolytic action which would cause damage to the fastening or metal component under moist conditions. In general, exterior anchors for windows, roofing sheet metal and anchors occurring on or in an exterior wall or slab shall be non-corrosive, hot dip galvanized steel or stainless steel.

9.3 Anchoring and fastening devices or adhesive shall be of appropriate type and shall be used in sufficient quantity in such a manner as to provide positive permanent anchorage of the unit to be anchored in position. Install anchors at spacing to provide for required load carrying capacity. Fastenings which cause spalling or cracking of material to which anchorage is being made are not permitted.

9.4 Attach and fasten fittings and fixtures in place in a safe, sturdy and secure manner so that they cannot work loose or fall or shift out of position during the occupancy of building as a result of vibration or other causes during the normal use of building.

9.5 Do not use powder-actuated fastening devices which are stressed in withdrawal on any part of the work without written Consultant's approval.

9.6 Properly size expansion shield anchor holes in concrete and drill cleanly to avoid over-sizing.

9.7 Wood plugs in masonry are not permitted. Fastenings shall be of permanent type.

PART 10 DISSIMILAR METALS

10.1 Insulate metals where necessary to prevent corrosion due to contact between dissimilar metals, and between metals and masonry, concrete or gypsum board. Use bituminous paint, butyl tape, building paper or other approved means. Use bituminous paint only on aluminum surfaces.

PART 11 THRESHOLDS

11.1 Set all thresholds in a bed of sealant.

PART 12 EMBEDDED CONDUIT, PIPE AND SLEEVES

12.1 Fill all unused sleeves and holes not otherwise filled. If unused sleeve is in a fire or sound barrier, it must be filled in such a way as to restore the integrity of the fire or sound barrier.

12.2 Sleeves, conduits and pipes which pass through suspended slabs, beams or walls, shall be in approved locations which do not impair the strength of the construction. Space them at not less than 3 diameter o.c. For conduit greater than one-third slab thickness, depress subgrade to maintain minimum 65 mm concrete above and below conduit, extend coverage 150 mm minimum each side of conduit. Where crossovers occur, one conduit or pipe shall be depressed to pass under the other and the subgrade depressed to increase the slab thickness locally.

12.3 Conduits or pipes embedded in concrete slabs on grade shall not be larger in outside diameter than one-third the thickness of the slab, and shall have minimum 50 mm concrete cover to the finished surface.

12.4 Where electrical or telephone boxes are back to back, serving each side, locate them at least 200 mm apart laterally.

PART 13 FLOOR SURFACES

13.1 Adequately protect trowelled concrete floors and finished flooring from damage. Take special measures when moving heavy loads or equipment on them. Keep floors free of materials likely to stain or impair bond of applied finishes.

PART 14 CONCEALED SERVICES

14.1 Install and arrange all ducts, piping, conduit, wiring and equipment and fixtures in such a way as to conserve headroom and space to provide minimum interference. Except as otherwise noted, run pipes, ducts, tubing and conduit, vertical, horizontal and square with building grid. Conceal pipes, ducts tubing and conduit above ceilings, behind furring or in walls, except in mechanical rooms, equipment rooms and unfinished spaces, unless indicated or specified otherwise.

PART 15 DEFLECTION

15.1 Provide allowances at the head of non-bearing partitions for deflection of the structure above. Clearance shall be based on span/360 (due to live load only) of old members supporting the floor or roof deck except as indicated otherwise on the drawings or specifications. Maintain the integrity of wall or partitions as fire or acoustic barrier.

PART 16 SUSPENDED CEILING SUPPORT

16.1 Provide adequate support for electrical fixtures in suspended ceilings. If separate support for such fixtures is not specified and fixtures are to be supported by suspended ceiling, ensure that such support is adequate as required by the designated Electrical Inspection Department having jurisdiction and the Ontario Building Code.

If light fixtures are not supported independent of the ceiling system, then provide certification that adequate support is provided by the suspended ceiling and in particular conformance to the specified design.

PART 17 TRADEMARKS AND LABELS

17.1 Locate trademarks and labels on concealed or inconspicuous surfaces or remove by grinding if necessary or paint out where surfaces painted. If located conspicuously in exposed location.

17.2 All strippable coatings shall be removed prior to occupancy.

END OF SECTION 01600

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:

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 e 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 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.

2.5 Defect and Deficiency

2.5.1 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.

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

2.5.3 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.

2.5.4 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.

2.6 Deficiency List

2.6.1 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 his / hers. Any inspections to approve Certificates of Substantial Completion shall be immediately cancelled if it becomes obvious that extensive deficiencies are outstanding.

2.6.2 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 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 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.

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

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

4.4 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.

4.5 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.

4.6 Glazing surfaces shall be cleaned.

4.7 Clean all casework, specialties and accessories.

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

4.9 Avoid contamination of surrounding surfaces with cleaning fluids.

4.10 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 Arrange and co-ordinate instruction of Owner's staff in maintenance and operation of window systems and roller blinds by suppliers and Subcontractors.

7.1.7 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.

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

7.1.9 Finished areas shall be sequentially turned over to the Owner for custodian=s 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 03345	Concrete Repairs	2 years
Section 06400	Millwork	2 years
Section 07900	Sealants	5 years
Section 08111	Aluminium Frames	5 years
Section 08200	Wood Doors	3 years
Section 08800	Glazing	5 years
Section 09310	Porcelain Tile	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 barriers, guards at the mechanical shaft opening modification location.

1.2.3 Remove resultant debris from the site.

1.2.4 Patch and make good all adjacent interior and exterior wall, floor, ceiling and roof construction, interior finishes and millwork damaged by the removal of existing construction.

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.

1.2.6 At existing meeting room 106 remove the existing PC350 glazed screen , glazing, wood door, finish hardware including all mounting clips for the PC350 framing. Cut back existing gypsum board wall finishes and existing acoustic tile ceiling assembly as required to fit new construction to existing. Cut back existing carpet tile floor finish and cove base as required to patch fastener removal locations. Dismount the existing wall mounted 50” LED monitor and mounting bracket and store securely for relocation as indicated on the drawings.

1.2.7 At existing building inspectors work area room 101 cut back the existing gypsum board and Steel stud partition from finish floor to the underside of the existing acoustic ceiling as scheduled on drawing A 203. Remove sections of existing acoustic ceiling tile and suspension grid as required to fit new construction to existing.

1.2.8 At existing washroom 104 dismount the existing stainless steel combination paper towel dispenser / waste receptacle and turn over to owner on site. Remove the existing gypsum board finish on the north and east side of the existing mechanical duct shaft section. Erect the temporary barriers in the parking garage below and warning signs under the duct shaft and remove the existing 6” concrete block shaft enclosure sections from the ground floor structural slab to the underside of the 2nd floor structural slab above. Cut back the end conditions with cutting wheel to provide a clean interface for the scheduled new shaft wall. Remove the existing plywood at the base of the shaft. Prepare the slab edge for the new structural angle, steel deck and concrete infill. Cut back the existing gypsum board ceiling as required to access the plenum for installation of the new shaft wall assemblies. Remove section of the existing porcelain tile flooring and cove base at the alteration area.

1.2.9 At existing microfiche room 108 and existing director’s office 112 remove the existing PC350 Aluminum framing, glazing, wood door, finish hardware. Turn wood door over to the owner for maintenance. Remove the existing demising wall between room 112 and 108 from finish floor to the underside of the existing acoustic tile ceiling. Remove sections of existing carpet tile and rubber cove base as required to fit new construction to existing. Cut back existing acoustic tile ceiling assembly as required. Grind off excess flooring adhesive at tile removal locations. Remove the existing microfiche millwork unit lowers and uppers.

1.2.10 At new microfiche area 110 remove the existing whiteboards and tackboards at the locations indicated. Remove all exposed fasteners. Cut and patch existing acoustic ceiling tile assembly as required to relocate light fixtures and diffusers at the locations indicated on the drawings.

1.2.11 At existing plans examiner's work area 115 dismount wall mounted shelving units. Dismount Sections of existing acoustic tile ceiling assembly as required to provide access to install new partitions and glazed screens, door framing. Remove sections of existing cove base intersections with new partitions.

1.2.12 General:

.1 Scan all concrete slabs on grade and wall sections for conduits and piping prior to saw-cutting operations.

.2 All saw-cutting shall be wet saw process and must be done off hours.

.3 Personnel shall wear PPE in accordance with the Construction Health and Safety Act latest edition including respiratory, hearing and eye protection.

.4 Disposal bins shall be maintained 3050 mm from building face and egress doors within a fenced storage compound.

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, digital projection equipment and wireless hubs, phones, furniture and books from the phased work zones prior to work of the phase proceeding. Contractor shall provide temporary protection of existing workstations, furniture, elevator cab, existing doors, flooring, ceilings as work of this section proceeds.

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

1.4 Protection

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

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

1.4.3 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.

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

1.4.5 Use of cutting torches (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 Dispose of demolished materials except where noted otherwise and in accordance with authorities having jurisdiction and applicable law.

2.2 Install shoring as required to execute the work. Install engineered shoring, obtain structural review of the shoring by the shoring engineer and the structural consultant.

2.3 Provide temporary weather protection and secure the work zones throughout the execution of the work. All openings must be secured at the end of each work day.

2.4 Cut openings for new beams, new duct openings, base plates, lintels, misc. metal items blocking as required to install scheduled items as identified on the drawings and specifications.

2.5 Cut openings in existing gypsum board / steel stud partition walls for new aluminium door framing and glazed screens.

2.7 Remove existing wood doors, frames and transoms related hardware at the designated locations. Turn over to the owner for maintenance purposes.

2.8 Arrange for Division 16 to remove all surface mounted conduit wiremold raceways as scheduled on the electrical drawings.

PART 3 GENERAL

3.1 This section shall be responsible for saw-cutting chases in the existing concrete block wall units for new electrical conduit runs, and plumbing risers.

3.2 Grind off all adhesive encountered behind the existing floor finishes Prepare substrate for scheduled finishes.

3.3 Sand existing painted gypsum board surfaces scheduled for repainting with 150 grit sandpaper.

3.4 Arrange for division 15 and 16 to implement their sections of the work.

3.5 Prepare exposed substrates for new scheduled finishes.

3.6 Dispose of all resultant debris in accordance with the requirements of authorities having jurisdiction. Recycle debris where possible.

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

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

3.9 Rout and fill all cracks in existing concrete floor slabs with Sika Pronto 11 self-levelling mortar.

3.10 Co-ordinate temporary capping off and disconnection of existing active services or services to be abandoned with division 15 and 16.

3.11 Cut openings in existing structure for scheduled new components. Provide shoring and remove selective sections of existing bearing and non-load bearing masonry partitions as identified on the drawings.

3.12 Patch and make good all adjacent finishes as required to fit the new construction to existing conditions.

3.13 Remove pipe space enclosures to access plumbing, conduits and ductwork. Remove all abandoned piping/conduit. Relocate conflicting active services to new concealed locations.

3.14 Dispose of demolished materials in accordance with authorities having jurisdiction. All glass shards must be immediately removed from areas accessible by students.

3.15 All demolition debris must be in bins within the construction compound not left on the sod/asphalt/play surfaces or in the building.

3.16 Contractor shall secure the building at the end of each work day with minimum 16mm thick plywood anchored to prevent forced entry. In addition, temporary weather protection must be maintained as the work progresses.

3.17 Debris resulting from operations of this section must be removed from the active work zones as the work proceeds.

3.18 No obstructions or debris in the corridors or parking garage is permitted at any time during construction.

3.19 Cut back existing porcelain tile and cove base in washroom 104 as required to fit new construction to existing.

PART 4 TEMPORARY SHORING

4.2 Contractors shall take all necessary measures to ensure safety to his workers and building occupants during demolition operations. Prevent movement, settlement or damage of adjacent parts of existing building to remain. If safety of building appears to be endangered cease operations and notify Owner and Consultant immediately.

PART 5 RESTORATION

5.1 Upon completion of work, remove any remaining debris, trim surfaces and leave work site clean.

5.2 Dispose of demolished materials in accordance with authorities having jurisdiction. All glass shards must be immediately removed from the alteration areas.

PART 6 ALL OF THE ABOVE AS INDICATED ON THE DRAWINGS AND AS HEREIN SPECIFIED.

6.1 PROVIDE ALL REQUIRED CUTTING AND PATCHING AS REQUIRED TO FIT NEW CONSTRUCTION TO EXISTING.

6.2 Remove all resultant debris from the job site and dispose of in accordance with the applicable legislation.

END OF SECTION 02010

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 SCOPE OF WORK

1.2.1 The work shall include the removal of broken and chipped concrete and application of bonded levelling compound on areas to be made good. Fill in all disturbed areas with aggregate and cement, as required, and as hereinafter specified.

1.2.2 Provide the new 25 mpa Class N concrete infill slab in Washroom 104 as set forth on the drawings (inside the existing mechanical duct shaft riser).

1.2.3 Refer to sheet AA400 and A401 for the new 6” concrete slab details.

1.2.4 Concrete shall not be placed until the connections of the perimeter angles and welding of the composite steel deck have been inspected by the welding inspector and structural consultant.

1.2.5 Contractor shall retain an independent inspection company to take cylinders on site for each pour. Provide 7 and 28 day compressive test results.

1.2.6 Provide manufacturer’s mix design for review as per section 1300.

1.2.7 New concrete shall not be loaded until a minimum of 7 days curing has occurred.

1.2.8 Provide protective floor coverings on existing corridor and ramp floors during transport of concrete to the work zones.

1.3 Reference Standards

1.3.1 Do concrete work in accordance with CAN3-A23.1: 24 except where specified otherwise.

PART 2 PRODUCTS

2.1 Materials

2.1.1 Exterior concrete, 30 mpa, 5% air entrainment reinforced with fibremesh.

2.1.2 Interior concrete: 25 mpa reinforced as per structural drawings.

2.1.3 Use compatible additives, admixtures and hardeners.

2.1.4 Levelling compounds for interior patching:

Epoxy Adhesive - Monobond by MacNaughton Brooks Ltd.,
SikaTop 121, Polymer modified repair mortar
SikaTop 223, Cementitious patching mortar
SikaTop 222
SikaTop122 Plus

PART 3 EXECUTION

3.1 Floor Finish

3.1.1 Finish interior concrete in accordance with CAN3-A23.1: 24 Class A

3.1.2 Concrete floors scheduled to receive resilient tile floor finishes shall be steel trowelled to a smooth finish. Defects shall be ground off to ensure they will not show through scheduled floor finish.

3.1.3 **Apply levelling compounds as required to repair locations where flooring has been removed and as required to provide smooth juncture between new and existing construction.**

3.1.4 Apply floor levelling compound to manufacturer's instructions, maximum thickness 6mm. Over 6mm use SikaTop 122. Cure to manufacturer's recommendations.

3.1.5 Do not sprinkle dry cement or dry cement and sand mixture over concrete surfaces.

END OF SECTION 03345

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

1.3 Work Included

1.3.1 Provide internal dowels for masonry partitions.

1.3.2 Provide the prefabricated shelf angle steel deck support and composite steel deck for the infill concrete slab area in the existing duct shaft room 104 including installation of anchors for the shelf angle deck supports.. Refer to drawings A400 and A401.
Submit shop drawings for the assembly in accordance with section 01300.

1.3.5 Do not shop prime the steel angle assembly.

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

1.4 Related Work

1.4.1 Section 03345 Concrete Repairs.

1.5 Reference Standards

1.5.1 Do welding work in accordance with CSA W59.2024 unless specified otherwise.

1.6 Shop Drawings

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

1.6.2 Submit Shop Drawings of each item for approval. Clearly show assembly. Installation details, methods of fastenings. Do not fabricate until Shop Drawings are reviewed.

1.6.3 Indicate materials, core thicknesses, finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details and accessories.

PART 2 PRODUCTS

2.1 Materials

2.1.1 Steel sections and plates: to CAN3-G40.21-04 (R2023Grade 300W.

2.1.2 Steel pipe: to ASTM A53/A53M-22 standard weight, black finish.

2.1.3 Welding materials: to CSA W59-R2024

2.1.4 Bolts and anchor bolts: to ASTM A307-2023

2.1.5 Galvanizing: hot dipped galvanizing with zinc coating 600g/m2 to CSA G164-R2023.

2.1.6 Shop coat primer: to CISC / CPMA 2-75.

2.1.7 Zinc primer: zinc rich, ready mix to CGSB 1- GP-181M+Amdt-Mar-78.

2.1.8 Grout: non-shrink, non-metallic, flowable, 24h, 15 MPa, pull-out strength 7.9 MPa.

2.2 Fabrication

2.2.1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.

2.2.2 Where possible, fit and shop assemble work, ready for erection. Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.

2.3 Shop Painting

2.3.1 Apply one shop coat of primer to metal items, with exception of galvanized or concrete encased items. Primer shall conform to CGSB 1-GP-140C.

2.3.2 Use primer unadulterated, as prepared by manufacturer. Paint on dry surfaces, free from rust, scale, grease. Do not paint when temperature is lower than 7EC.

2.3.3 Clean surfaces to be field welded; do not paint.

PART 3 EXECUTION

3.1 Erection

3.1.1 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.

3.1.2 Provide suitable means of anchorage acceptable to consultant, including anchor clips, bar anchors, expansion bolts, shields, and toggles.

3.1.3 Make field connections with high tensile bolts to CAN3-S16.1-M84, or weld.

3.1.4 Hand items over for casting into concrete or building into masonry to appropriate trades together with setting templates.

3.1.5 Touch-up field welds, bolts and burnt or scratched surfaces after completion of erection with primer.

3.1.6 Touch-up galvanized surfaces with zinc rich primer where burned by field welding.

3.1.7 Anchor work as detailed; where not detailed provide concealed hangers, supports and anchors necessary to securely fasten work of this section.

3.1.8 Make jointing in built-in sections with hairline joints in the least conspicuous locations and manner. All exposed screws shall be countersunk. All welds shall be ground smooth and filled.

3.1.9 Provide items that are required to be built into the structure.

END OF SECTION 05500

PART 1 GENERAL

1.1 General Requirements

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

1.2 Description

1.2.1 Work Included

1.2.1 Provide all rough bucks, temporary bracing of door frames, miscellaneous blocking, rough carpentry.

1.3 Source Quality Control

1.3.1 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

1.3.2 Plywood identification: by grade mark in accordance with applicable CSA standards.

PART 2 PRODUCTS

2.1 Interior Lumber Material

2.1.1 Lumber: unless specified otherwise, softwood, S4S, moisture content 19% or less in accordance with following standards:

.1 CSA 0141-(R2004)
.2 NLGA Standard Grading Rules for Canadian Lumber, current edition.

2.1.2 Furring, blocking, nailing strips, grounds, rough bucks, curbs: No. 1 SPF

2.2 Panel Materials

2.2.1 Douglas fir plywood (DFP): to CSA 0121-R2022 Grade C, standard construction.
Exterior plywood shall be pressure preservative treated to CAN-CSA-080M. Interior plywood shall be DRICON fire retardant treated Hanford Lumber Toronto, Trent Manf or D Blaze Fire Retardant Treated D.Fir by Goodfellow.16mm thickness
Maximum flame spread 25, Maximum smoke developed 25.

2.2.2 Canadian softwood plywood (CSP): to CSA 0151-R2022, standard construction.

2.3 Fasteners

2.3.1 Nails, spikes and staples to CSA B111-1974.

2.3.2 Bolts: 12.5mm diameter unless indicated otherwise, complete with nuts and washers.

2.3.3 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, recommended for purpose by manufacturer.

2.3.4 Galvanizing: to CSA G164-R2023, use galvanized fasteners for exterior work pressure-preservative treated lumber.

2.4 Wood Blocking, Nailers for Exterior Applications

2.4.1 Sierra pressure preservative: treated **No. 2 Jack Pine**

PART 3 EXECUTION

3.1 Construction

3.1.1 Comply with requirements of Ontario Building Code, Section B, Part 9.

3.2 Furring and Blocking

3.2.1 Install 16mm Dricon FRTW D.Fir Plywood to the interior partition in washroom 104 as indicated on the drawings.

3.2.2 Align and plumb faces of furring and blocking to tolerance of 1:600.

3.3 Nailing Strips, Ground and Rough Bucks

3.3.1 Install rough bucks and nailers to rough openings as required.

3.3.2 Provide blocking for washroom accessories and millwork anchorage to partitions.

3.5 Fasteners

3.5.1 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.

3.5.2 Countersink bolts where necessary to provide clearance for other work.

3.5.3 For plywood where one side is exposed use G1S.

3.6 General

3.6.1 All lumber, plywood materials located within the exterior wall cavity and / or parapet shall be pressure preservative treated.

3.6.2 All bolts, nails, fasteners used on the parapet shall be hot dipped galvanized.

END OF SECTION 06101

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 Receive wood doors from section 08200 and finish hardware from section 08710 and install at scheduled locations.

1.2.2 Receive washroom accessories from section 10900 and install at scheduled locations

1.2.3 Receive phenolic toilet partitions from section 10900 and install at scheduled location.

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

1.2.5 Install door signage.

1.2.6 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.

2.1.2 Fire Retardant Treated Plywood

DRI-CON fire retardant treated exterior grade douglas fir plywood 16mm thickness, conforming to CAN / ULC S102M. Maximum flame spread 15, max smoke development 15. (Hanford Lumber , Trent Timber Treating, Peterborough, Peacock Lumber Oshawa, Ontario) or D Blaze by Goodfellow.

2.1.3 Pressure Treated Plywood

16mm thickness exterior grade douglas fir plywood pressure preservative treated to CAN / CSA -080.15 (R2020).

2.1.4 Softwood Lumber

No. 1 SPF kiln dried.

2.1.5 Decorative Plywood - 19mm thickness

Interior grade, flat cut select white maple veneer, hardwood veneer core. CSA - 151, M2020.

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

Provide all architectural millwork for the new microfiche station, work surface base cabinet in room 108 and the new closet shelf / coat rack unit in 108.

1.3 Related Work

1.3.1 Section 06200 Finish Carpentry.

1.3.2 Section 09900 Painting.

1.3.3 Division 15/16.

1.4 Samples

1.4.1 Submit duplicate samples of clear finish on specified veneer and scheduled core materials and coat hooks.

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 labour 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.

2.1.4 Casework Plywood at Shelving:

0.6 mm thick flat sliced select white maple flat sliced veneer on hardwood veneer core plywood. Core thickness for cabinet shelving 19mm

CSA 0115-M1982

2.1.5 Canadian Softwood Plywood

(CSP): to CSA 0151-M2005, standard construction.

2.1.6 Laminated Plastic

Base cabinet doors, drawer fronts and gables: Wilsonart # 7122K Empire Mahogany Standard Laminate 07 textured gloss finish (HPL Line)

Countertops : Wilsonart # 5043K15 Lisola textured HPL line.

Coat Shelf and cabinet interiors : Wilsonart # D354 Designer White Standard laminate 60matte finish HPL line.

Kicks: Wilsonart # D505-60 Black Textured HPL line.

2.2 Preformed Plastic Counter Tops and Splashbacks

2.2.1 Post formed countertops and splashbacks: Laminate as set forth in Article 2.1.6 on 19mm waterproof type particle core upper layer on 19mm veneer core plywood substrate complete with backer sheet on the underside of the countertop with **38mm non-waterfall edge profile**.

2.3 Edge Banding

2.3.1 Provide 6 mm thick solid matching white maple wood strip on edges, exposed in final assembly. Strips same width as casework substrate on non- plastic laminate finished casework. At all plastic laminate casework elements provide PVC edge banding to match specified plastic laminate.

2.4 Glues

2.4.1 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.

2.5 Hardware:

a. Hinges: Blum Compact 30, 120 deg. opening or equal by Hafele Duomatic/Richelieu

b. Door Pulls: Hager #2653, C32d finish or equal by Ferrum/Hafele/Richelieu.

c. Pilasters: KV255 (Knape & Vogt) nickel finish.

d. Pilasters: Clips: KV256 (Knape & Vogt) nickel finish.

e. Drawer Slides:

Drawers less than 600mm wide
Accuride # 3832, full extension or equal by Blum / Richelieu
100lb. capacity, zinc plated x 500mm length

Drawers greater than 600mm wide
Accuride # 4033, progressive heavy duty drawer slide, 100 lbs capacity, full extension, zinc plated x 700mm length or equal by Blum / Richelieu

f. Door Bumpers: Clear finish polyurethane self-adhesive. Hafele Cat. No. 356.21.428 - 2 required per cabinet door leaf.

g. Cabinet drawer and door locks. Provide locks on doors and drawers Hafele symo 3000 dead bolt rim lock system, nickel plated and keyed alike or equal by Richelieu / Blum.

2.6 The cabinetry gables, doors and drawers shall have plastic laminate finishes on all exposed and semi exposed surfaces.

2.7 The use of water- based finishes is **not** acceptable. Fabricator shall use clear catalysed lacquer finish for all veneer and trim finishes a minimum of 4 coats.

2.8 Storage Cabinet Hinges

Blum Compact 30, 120 degree opening or equal by Haefele/Richelieu, maximum spacing 600mm.

2.9 Provide quantities of cabinet hardware as required .

2.10 Fabrication

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

2.10.1

.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	Durham Precision Cabinets	905 623 2056

2.10.2 Set nails and countersink screws, apply wood filler to indentations, sand smooth and leave ready to receive finish.

2.10.3 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.

2.10.4 Shelving to cabinetwork to be adjustable unless otherwise noted.

2.10.5 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.

2.10.6 **Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings**

2.10.7 Casework Backs

Plastic laminate finish on 13mm thick veneer core plywood

2.10.8 Upper Casework Doors

Plastic laminate finish on 19mm thick particle board core.

2.10.9 Base Cabinet Doors, Drawer Fronts Gables: Plastic laminate finish as per article 2.1.6 above on 19 mm particle board core. Gables to have water resistant particle board core.

2.10.10 Storage Unit Doors

Plastic laminate finish on 19mm thick particle board core.

2.10.11 Drawer Sides / Back

0.6mm thick select flat sliced white maple on 16 mm veneer core plywood.

2.13.12 Drawer Bottoms

0.6mm thick select flat sliced white maple on 12mm veneer core plywood.

2.12.13 Kicks

Waterproof veneer core plywood. Marine grade 19mm thick minimum. Black plastic laminate finish scribed to floor.

2.11 Catalysed Lacquer

2.11.1 Valspar Valtec Pre-Catalysed Lacquer clear satin sheen or Super Kenvar ‘M’ top coat clear catalysed vinyl.

2.12 Finishing

2.12.1 All exposed and semi-exposed woodwork surfaces:

Apply one coat sanding sealer, as per manufacturer recommendations, 4 coats clear catalyzsed lacquer. Rub with fine steel wool between coats plus finish coat / satin sheen.

2.12.2 All millwork must be factory finished prior to shipping to job site. Provide protective coverings during shipment to the site.

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 wall mounted cabinets.

3.1.3 Use draw bolts in countertops joints. Counter- top joints are not permitted in casework less than 2400mm in length.

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 All exposed top surface components of bench seats shall receive 8mm radius x full length of each piece including all outside vertical corners.

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

3.1.8 Prior to substantial performance, inspect the site, adjust all door hinges, pulls and drawer slides for fit and smooth operations.

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 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) all new interior masonry control joints
b) all intersections of new masonry with existing construction;
c) exposed joints between intersecting dissimilar materials;
d) joints between hollow metal door frames and unit masonry.
e) intersections between sinks and masonry walls, base of water closets to porcelain tile floor finish.
f) intersections of countertops, splashbacks 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, and disposal of hazardous materials; and 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 perimeter of steel and aluminium window frames at intersection with dissimilar materials. TREMCO, Dymonic- FC.

2.1.3 Exterior perimeter of exterior steel and aluminium 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 Cleanup

.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 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 and new 2 hour fire rated shaft wall construction.

1.2.2 Provide the Hilti Firestop Drop In Device CFS-DID for the scheduled 3” water closet pipe penetration in washroom 104 (# 2008252) verify pipe OD and clearance for water closet flange).

1.2.3 Provide the 2 hour fire rated Dura-systems GNX pipe enclosure clamshell assembly at the underside of the mechanical duct shaft. Manufacturer to provide engineered shop drawing for the factory prefabricated assembly and Dura-barrier Pipe fire rated closure at the penetration of the 3” cast iron sanitary line.

1.2.3 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 Samples

1.4.1 Submit duplicate 300 x 300 mm samples showing actual firestop material proposed for project.

1.5 Shop Drawings

1.5.1 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 SECTION INCLUDES

A. ALUMINUM SIDELIGHT FRAMES AND RELATED COMPONENTS.

1. Aluminum door and sidelight frames and associated components.
2. Door and sidelight glazing.

1.2 RELATED SECTIONS

A. Section 08200 Wood Doors.
B. Section 08800 Glazing.
C. Section 09250 Gypsum Board, coordination with blocking.

1.3 REFERENCES

A. ASTM International (ASTM):
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 3 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. Steel studs at opening are to be inverted to accept jambs and opening to remain unfinished.
B. 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.
C. Drywall around openings do not require paint prior to jamb installation however a minimum of drywall finish 4 is required unless specified otherwise.

1.8 WARRANTY

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

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Basis-of-Design Products: Based on the quality and performance requirements of the project, specifications are based on the products of PC350, www.PC350.com.
B. Alternates: Moodwall P3 Series
C. All frames shall be comprised of aluminum extrusions of 6063 alloy with a T5 treatment.
D. Extrusion thickness shall be 3.2MM (.125") on exposed surfaces and 4.75MM (.187") on internal webs.
E. Steel members to be galvanized.
F. Provide framing with the following characteristics:
   1. Aluminum framed swing door frame with stationary sidelight system to fit 4 - 5/8" wall thicknesses as specified.
   2. Trackless threshold where system is surface mounted to finished or unfinished floor.
   3. Wood doors are 1 – 3/4" thick with heights as specified.
C. Product lead times can not exceed 5 weeks from taping around openings to avoid project delays and cost over runs.
D. Product to be self supporting and not require any structural support or blocking.
E. Product to be stick built and capable of being cut and assembled on site to meet any variations within the openings.

2.2 ALUMINUM SIDELIGHT FRAMES

A. PC350 Elite Door Frame System with the following characteristics:
   1. Rectilinear design.
   2. 1 - 3/4” face profile.
   3. Snap on trim: 1 – 3/4" Aluminum.
   4. Other trim options as selected from manufacturer’s catalogue.
   5. 0.070” rabbet wall thickness.
   6. Formed using controlled alloy billets of 6063 T5 to assure compliance to tight dimensional tolerances and maintain color uniformity.

B. Finish:
   1. Aluminum Batten Covers
      a. Color: Clear anodized aluminum

C. Glass:
   1. Glass Thickness
      3/8” Laminated as set forth in Section 08800.

D. Height:
      a. Custom height: Overall height up to 108 inch (9 Foot) tall doors.

E. Frame:

   Aluminum extruded door frame with removable Aluminum batten covers.
   Frame extrusions and fasteners are not visible once batten covers are applied.

F. Throat Thickness:
   1. 4 – 5/8”

PART 3 - EXECUTION

3.1 CONDITIONS

A. Do not begin installation until substrates have been properly prepared.
B. Confirm substrates are plumb and level and finished to a minimum of level 4.
C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 INSTALLATION

A. PC350 installation must be performed by a trained and authorized PC350 installer.
B. Do not install parts or components that which are observed to be defective or damaged.
C. Do not cut or trim component parts during installation in a manner that would damage the finish, decrease the strength or result in visual imperfection or failure in performance. Return affected component parts for repair or replacement.
B. Install products in strict compliance with manufacturer’s written instructions and recommendations, including the following:
   1. Verify steel stud framing has been inverted and remains unfinished around opening.
   2. Verify that wall final wall thickness does not exceed manufacturer’s standard tolerances allowed by specified throat size.
   3. Verify location does not interfere with door swings or use of fixtures.
   4. Use fasteners and anchors suitable for substrate and project conditions.
   5. Ensure mineral wool insulation is utilized to minimize sound transmission through the frame.
   6. Install frames to be rigid, square, straight, plumb, and level.

7. Install drywall or extrusions in the longest possible lengths ensuring no component is less than 4 feet and with no visible splices.
8. Conceal evidence of drilling, cutting, and fitting to room finish.
9. Test for proper operation.

3.3 ADJUSTING, CLEANING AND PROTECTION

A. Adjust hardware for proper operation after installation. Verify that doors self-close and when from the 90-degree position, the door closes in no fewer than 4 seconds.
B Touch-up, repair or replace damaged products.
C. Clean exposed surfaces of frames, hardware, and fittings.

END OF SECTION 081116

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 Fabricate the factory pre-finished red oak veneer faced solid wood core doors and turn over to section 06200 finish carpentry on site for installation.

1.3 Related Section

1.3.1 Section 06200 Finished Carpentry

1.3.2 Section 08800 Glazing and Mirrors

1.4 References

1.4.1 AWMAC - Quality Standards for Architectural Woodwork, latest edition.

1.4.2 CAN/CSA-0132.2 Series-90, (R2003) Wood Flush Doors as amended

1.4.3 CAN4-S104-M2010, Fire Tests of Door Assemblies.

1.4.4 CAN4-S105-M2009, Fire Door Frames.

1.4.5 NFPA-80, Fire Doors and Windows, latest edition.

1.5 Samples

1.5.1 Submit samples in accordance with Section 01340 - Submittals.

1.5.2 Submit one 300 x 300mm corner samples of each type of wood door.

1.5.3 Show door construction, core, glazing detail and faces.

1.6 Shop Drawings

1.6.1 Submit shop drawings showing details and dimensions required for the fabrication and erection of work described in this section. Submit sample of door stain finish on specified veneer.

1.7 Guarantee

1.7.1 **All doors shall be fully guaranteed for a period of three (3) years against manufacturing defects, core ghosting and warping, delamination of veneer finish by the owner's supplier.**

PART 2 MATERIALS

2.1 Doors

2.1.1 Doors shall be of the sizes, thickness and type as shown on the drawings.

2.1.2 Solid core doors shall be Baillargeon 8500-ME series with solid particle board core or equal by Madawaska Door Co., Lambton Doors 0r Cambridge Doors

2.1.3 Doors shall be complete with ULC or Intertek labels indicating approved fire resistance rating as required

2.1.4 Core-medium density cored wood particle board. Rated assemblies shall conform to requirements of ULC or Intertek

2.1.5 Crossband - 3 ply hardwood not less than 1/8" (3mm) thick before sanding. **Face veneer to be red oak veneer flat sliced, Baillargeon " saffron stain finish factory applied".**

2.1.6 Undercut or rebate bottom rails as required. **Undercut shall not exceed 13mm**

2.1.7 Vertical and horizontal edges, stops and beads for glass and grilles to be solid oak to match veneer. Edges shall be minimum 1-1/2" (38mm) wide by thickness of door.

2.1.8 Stiles and rails to be low density softwood staved type minimum 3-1/2" (83mm) wide with 3/4" (19mm) thick hardwood edge banding. Moisture content shall not exceed 8%.

2.1.9 Glazing beads to be flush type front edge recessed 1/8" (3mm) at bottom. Mitre cut and fit all corners to form tight flush joints.

2.1.10 Stile Edges: Select red oak, to CAN/CSA-0132.2, for stain and varnish finish

PART 3 EXECUTION

3.1 Fabrication

3.1.1 Door cores unframed, solid, laminated wood stave core construction, comprising narrow pieces of kiln dried wood, grain running vertically and end joints well staggered, solid (no voids) and electronically glue bonded. Floating core construction will not be accepted. Sand door cores both sides prior to application of faces.

3.1.2 If particle board core or fire rated cores used, frame with 4-1/8" (105mm) minimum wood stiles and 2-3/4" (70mm) minimum wood rails; edge stiles with birch 3/4" (19mm) wide minimum, full length piece. Glue stiles and rails to core and apply face laminate and machine flush with door edges.

3.1.3 Seal top and bottom edges with finish to match face surfaces applied at door manufacturer's plant.

3.1.4 Apply one coat of clear sanding sealer, one coat of pigmented wiping stain (colour to Owner=s choice) from manufacturer's standard range and three coats clear urethane finish applied at door manuf. plant.

3.2 Fitting and Hanging Doors

3.2.1 Doors shall be delivered to site, protected in transit from any damage from weather or handling and similarly store in a protected area unit hung in place.

3.2.2 Doors shall be hung by skilled carpenters (Section 06200).

3.2.3 Door hardware will be supplied by Section 08710. Neatly and accurately fit required finishing hardware.

3.2.4 The completed installation requires all doors to fit accurately in their frames, swing easily without binding and close snugly without movement when latch is engaged.

END OF SECTION 08200

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 finish hardware as per finish hardware schedule enclosed and turn over to Section 06200 and 08550, for installation.

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.

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 Exterior

Stanley or Hager as scheduled.

2.1.2 Interior Location and HM Doors

Stanley or Hager as scheduled.

2.1.3 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 Latch-sets

None other than as scheduled. **No equal will be accepted. 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. # D1 Corridor to New Meeting Room 111
LH
1 -3'0" X 8'10" X 1-3/4" X AL X WD DR.

Qty			
4	Ea	Hinge	BB1279-114 X 114 - 626
1	Ea	Office Lockset	28 X 10XG05 X LL X 626
1	Ea	Universal Floor Stop	242F X 626

Set # 2

1 Pair Drs. # D2 Permit/Zoning Work Area 108 to Hall Coat Storage
RHR LHR
1 -4'4" X 8'10" X 1-3/4" X AL X WD DR.

Qty			
6	Ea	Hinge	BB1279-114 X 114 - 626
2	Ea	Dummy Handle	28 X 10XU93 X LL X 626
2	Ea	Surface Stop @ 110 Deg.	452S X 630
2	Ea	Roller Latch	RL38 X 630

Set # 3

RH
1 Single . Dr. # D4 Plans Examiner Work Area 115 to DCBO Office #1 116

LH
1 Single. Dr. # D5 Plans Examiner Work Area 115 to DCBO Office#2 117

LH
1 Single. Dr. # D6 Plans Examiner Work Area 115 to CBCO Office#3 118

RH
3 - 3'0" X 8'10" X 1-3/4" X AL X WD DR.

Qty			
12	Ea	Hinge	BB1279-114 X 114 - 626
3	Ea	Office Lockset	28 X 10XG05 X LL X 626
3	Ea	Universal Floor Stop	242F X 626

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 all new glazed aluminium sidelights and screens.

1.2.2 Related Work

a)	Wood Doors:	Section 08200
b)	Aluminium Glazed Wall Systems	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 10m thick laminated safety glass or equal by BG Glass Solutions, Guelph On , Saint – Gobain, Pro-Temp, Concord.**

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 aluminum 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.

3.2 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 Aluminum Screens and Sidelights**

10 mm clear laminated 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 2 hr fire rated CGC shaft wall assembly framing at locations indicated on the drawings. ULC Design W452 in room 104 (Phase 4).

1.2.3 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.

1.2.4 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 - Alteration Area**

1.2.1 a) Provide new acoustic tile ceilings complete with all suspension systems, framing, trim components, suspension grid and related accessories at locations indicated throughout the office alteration areas as required to provide cutting and patching to fit new construction to existing.

c) 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.

1.2.2 **Cutting and Patching for Mechanical and Electrical Work**

a) Contractor shall refer to the complete mechanical and electrical drawings for the locations of existing acoustic tile ceiling assemblies which will require cutting and patching and/or complete replacement to implement the scope of the alterations.

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 is specified for flame spread reduction. The assembly is not a required fire separation. The concrete structure provides the 2nd floor fire separation.

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.

3.2 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 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 the 2 hour fire rated CGC shaft wall assemblies in washroom 104 ULC Design W452

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

1.2.4 All required cutting and patching of existing plaster and gypsum board ceilings/bulkheads pipe spaces as required to fit new construction to existing.

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 firecode X core gypsum panels, 4'-0" wide x maximum practical length as manuf by Canadian Gypsum Company or equal by Certainteed, 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.

2.3.4 Shaft wall gypsum boards as per ULC W452 CGC product line.2hr fire rated assembly.

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

W452 2hr fire rated shaft wall CGC

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 so as 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

1.2.1 Provide new 4” height rubber cove base at all new gypsum board partition locations and as required to fit new construction to existing.

1.2.2 Provide cutting and patching of existing carpet tile finishes as required to fit new construction to existing.

1.3 Samples

1.3.1 Submit samples in accordance with Section 01300 - Submittals for colour selection by Consultant.

1.4 Maintenance Data

1.4.1 Provide maintenance data for incorporation into manual specified in Section 01300.

1.5 Environmental Requirements

1.5.1 Maintain air temperature and structural base temperature at flooring installation area above 20 degrees Celsius for 72 hours before, during and for 48 hours after installation.

1.5.2 Carry out moisture and excessive alkalinity tests on concrete substrate. If moisture registers over 3.5% and if ph registers over 10.8 notify Consultant.

1.5.3 **All oils (particularly those related to pipe cutting and or conduit lubricants) shall be removed by the trade responsible for the staining prior to this section commencing work.**

1.6 Warranty

1.6.1 Contractor hereby warrants work of this section against defects of quality of work in accordance with General Conditions, but for a period of **two (2) years** and further warrants work of this section against defects of materials in accordance with the General Conditions but **for a period of 10 (ten) years** (manufacturer’s warranty on materials).

PART 2 PRODUCTS

2.1 Materials

2.1.1 Carpet Tile:

Interface Manufacturer #WW895 Terrain Weave, 30 oz, Solution Dyed Nylon. Engaged Tufted Pattern Loop, Glasbac backing. Protekt soil and stain protection. 15-year manufacturer’s warranty. Module to match existing.

2.1.2 Accent Tile:

Interface Series Solid Foundation P16690, Colour Denim 5864, 20” x 20” module, 30 oz.

2.1.3 Adhesive:

Interface Tactiles Release Adhesive

2.1.3 Rubber Wall Base System

Tarkett 4" standard rubber stock. One colour from manufacturers standard range complete with preformed inside and outside corners or equal by Amtico or Roppe.

2.1.4 Adhesive for Rubber Cove Base

Amtico #222 cove base adhesive or equal by Johnsonite, Roppe.

Sub-floor filler and leveller: as recommended by flooring manufacturer for use with their product to provide permanent waterproof bond to substrate and tile.

2.1.5 Provide rubber transition strips at junctions with dissimilar floor finishes.

PART 3 EXECUTION

3.1. Inspection

3.1.1 Ensure concrete floors are dry free of dusting or other deleterious materials affecting bonding of adhesive, by using test methods recommended by tile manufacturer. Ascertain nature of curing and or sealing compound used on concrete to determine its compatibility with flooring adhesive.

3.2 Sub-floor Treatment

3.2.1 Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with approved sub-floor filler. Minimum 48 hours before installing tile.

3.2.2 Clean floor and apply filler; trowel and float to leave smooth, flat hard surface. Prohibit traffic until filler cured and dry (minimum 48 hours).

3.2.3 Prime concrete to flooring manufacturer's printed instructions.

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

3.2.5 Lay flooring with joints parallel to building lines to produce symetric pattern.

3.2.6 **Install carpet tile at cutting and patching locations to match existing pattern with continuous joints flowing with direction of mottle.**

3.2.7 Cut tile and fit neatly around fixed objects.

3.2.8 Install feature strips and contrast shapes where indicated. Fit joints tightly.

3.2.9 As installation progresses, and after installation, roll flooring in 2 directions with 45 kg minimum roller to ensure full adhesion. First rolling shall be diagonal to the seams. Second rolling shall be 90^0 to the first rolling. Reroll the entire area after 1-2 hours.

3.2.10 Terminate flooring at adjacent floor finishes. Provide thresholds and reducer strips as required.

3.3 Rubber Base Cove Application

3.3.1 Lay out base to keep number of joints at minimum. Base joints at maximum length available or at internal or pre-moulded corners.

3.3.2 Set base in specified mastic adhesive tightly by using 3 kg hand roller, against wall and floor surfaces. Provide rubber cove base at new millwork kick locations.

3.3.3 Install straight and level to variation of 1:1000.

3.3.4 Scribe and fit to door frames and other obstructions. Use pre-moulded end pieces at flush door frames.

3.3.5 Cope internal corners. Use pre-moulded corner units for right angle external corners. Use formed straight base material for external corners of other angles.

3.3.6 Exercise caution not to stretch rubber cove base during rolling. Roll in one direction towards the last piece installed. Provide temporary restraints to secure cove base in place until adhesive has cured.

3.4 Protection of Finished Work

3.4.1 Prohibit traffic on floor for 48 hours after installation. Remove all excess adhesive.

END OF SECTION 09660

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 new porcelain tile floor finish and cove base at the alteration area in washroom 104 as required to fit new construction to existing. Match existing module, colour and grout.

1.2.2 All of the above as described on the drawings and as specified herein complete with uncoupling membranes, trim components.

1.3 Related Work

1.3.1 Section 03302, Cast-In-Place Concrete.

1.4 Reference Standards

1.4.1 Do tile work in accordance with Installation Manual 2011, "Ceramic Tile", produced by Terrazzo Tile and Marble Association of Canada (TTMAC), except where specified otherwise.

1.4 Samples

1.4.1 Submit samples in accordance with Section 01300 - Submittals for colour selection by Consultant.

1.5 Environmental Conditions

1.5.1 Maintain air temperature and structural base temperature at ceramic tile installation area above 21 Celsius for 48 hours before, during and 48 hours after installation.

PART 2 PRODUCTS

2.1 **WASHROOM FLOOR TILE LOCATIONS**:

Centura Basaltina series 12” x 24” module complete with matching 4” x 24” base square edged

2.2 **Cove Base Edge Trim Schulter Rondec – DB Aluminum**

2.4 Mortar Adhesive

2.4.1 Ardex X-4 thin set mortar
Schulter ditra uncoupling membrane on floor locations.

2.5 Grout

2.5.1 Tec Accucolour one colour to owner’s selection from standard range available

2.6 Edge Reducer Strips/Floors:

2.6.1 Reno U trim, clear anodized aluminium, tel: 1-800-667-8746

2.7 Mortar

2.7.1 Mapei Kerabond/Keralastic system.

2.9 **Floor Control Joints:**
Schulter Dilex KSN with flexible black inserts. Spacing maximum 6000mm on centre.

2.10 **Cove base cap trim at corridor and reception.**
Schulter Quadec J Trim full length of porcelain tile cove base.

2.11 **Edge Reducer Transition Strips:**
Schulter reno U Trim required at intersections between porcelain tile flooring and LVP, terrazzo and door openings.

PART 3 EXECUTION

3.1 Workmanship

3.1.1 Examine the slabs on which the tile is to be laid and report any defects to the Architect.

3.1.2 All surfaces must be clean and free from dust, oil, grease, paint or other substances which may reduce or prevent adhesion.

3.1.3 Apply tile to clean and sound surfaces.

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

3.1.5 Maximum surface tolerance 1:800.

3.1.6 Make joints between tile uniform and approximately 1.5 mm wide for wall tiles, plumb, straight, true, even and flush with adjacent tile. Refer to drawings for patterns.

3.1.7 Lay out tiles so perimeter tiles are minimum 1/2 size.

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

3.1.9 Make internal angles square.

3.1.10 Install metal divider strips at junction of porcelain tile flooring and dissimilar materials.

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

3.1.12 Clean installed tile surfaces after installation and grouting cured.

3.1.13 Installation shall be according to Manual 200-15 Thin Set prepared by the Terrazzo Tile and Marble Association of Canada. Control joints to be installed as recommended by the Association.

3.3 Grouting

3.3.1 Do not grout the tile sooner than 24 hours after setting of the adhesive. Clean joints of dust, dirt and excessive adhesive.

3.3.2 Mix grout with clean water to the consistency of thick cream. Grout to be coloured as selected by Architect.

3.3.3 Fill joints and allow to set a few minutes. Remove surplus grout and finish flush and true. As soon as grout has reached its initial set, wash tile surface with a sponge and clean water.

Polish with clean dry cloths.

3.3.4 All floor tile shall be grouted with a waterproof grout. Use only an approved type admixture.

3.4 Protection

3.4.1 Protect adjoining work from damage from rough material and water. Make good damage to other work caused by doing this work.

3.5 Cove Base Tiles

3.5.1 Install in accordance with TTMAC. Accurately cut all corners. Set plumb and true. Grind exposed edges where necessary to avoid exposed sharp edges.

END OF SECTION 09310

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 fire proofing.

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 plaster and drywall surfaces shall be sanded with #80 grit. All former fastener holes shall be filled with durabond 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, egg shell

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 to 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 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 a distance of 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 on a daily basis.

END OF SECTION 09900

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 Supply one Hadrian Elite Max 92” Phenolic Toilet Partition colour # 320 Portico Teak , pedestal Mounted Matte Black Hardware at existing Washroom 104 (Phase 4) .
1.2.2 Supply toilet and bath accessories as specified herein.
1.2.3 Supply the materials to Section 06200, Finish Carpentry for installation complete with all required accessories .

1.3 Related Work

1.3.1	Unit Masonry:	Section 04220
1.3.2	Finish Carpentry:	Section 06200
1.3.3	Painting:	Section 09900

1.4 Samples

1.4.1 Submit one sample of each accessory in accordance with Section 01300, if requested. Samples will be returned to the Contractor.

1.5 Shop Drawings

1.5.1 Submit shop drawings or catalogue illustrations in accordance with Section 01300.

1.5.2 Indicate size and description of components, base material, surface finish inside and out, hardware and locks, attachment devices, description of rough-in-frame, building-in details of anchors for grab bars.

1.6 Templates

1.6.1 Submit templates and instructions where recesses, openings, fastenings or anchors have to be built in by others.

1.7 Co-ordination

1.7.1 It is the responsibility of the General Contractor's site superintendent to ensure that all provisions for recessed accessories are built into the masonry and that piping and conduit clearances are co-ordinated accordingly.

PART 2 PRODUCTS

2.1 Materials

2.1.1 Acceptable materials: Products specified shall be manufactured or supplied by the following companies:

a) Bobrick Washroom Equipment of Canada Ltd., Hadrian

b) Alternate Manf. Watrous, Bradley or Frost

2.1.2 Sheet steel: commercial quality to ASTM A526- 80 with ZF001 designation zinc coating.

2.1.3 Stainless steel sheet metal: to ASTM A167-82, Type 304, with satin finish.

2.1.4 Stainless steel tubing: Type 304, commercial grade, seamless welded 1.2 mm wall thickness.

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

2.2 Fixtures

2.2.1 Supply the following materials for locations indicated room 104

2.2.2 **Combination Paper Towel / Disposal Unit**

Qty.
1 Bobrick B-3944 Classic series recessed convertible folded towel Dispenser and Receptacle 16” wide x 4” deep x 54 3 / 4 “ ht. Stainless steel finish satin no. 4

2.2.3 **Robe Hook**

Qty.	**Description**
1	Bobrick #B-671

2.3 Fabrication

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

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

2.3.3 Brake form sheet metal work with 1.5 mm radius bends.

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

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

2.3.6 Hot dip galvanize concealed ferrous metal anchors and fastening devices to CSA G164- M1981.

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

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

2.3.9 Provide steel anchor plates and components to suit anchorage substrate.

PART 3 EXECUTION

3.1 Installation

3.1.1 Install and secure accessories rigidly in place as follows:

.1 Hollow masonry units: use toggle bolts drilled into cell/wall cavity.

.2 Toilet/shower compartments: use male/female through bolts.

3.1.2 Install grab bars on built-in anchors provided by bar manufacturer.

3.1.3 Use tamper proof screws/bolts for all exposed fasteners.

3.1.4 Receive surface mount toilet tissue dispensers from Owner and mount (total 3units).

3.1.5 Receive surface mount soap dispensers from Owner and mount (total of 3 units)

3.2 Mounting Heights

3.2.1 Install toilet and bath accessories in washrooms at heights as indicated on the drawings and as directed on site for the soap dispensers and toilet tissue dispensers.

END OF SECTION 10800