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SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

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

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

Comments - Commentaires

Title - Sujet Building Modernization - Phase 2	
Solicitation No. - N° de l'invitation EC015-140977/A	**Amendment No. - N° modif.** 004
Client Reference No. - N° de référence du client R.039554.001	**Date** 2013-09-17
GETS Reference No. - N° de référence de SEAG PW-$PWB-020-3297	
File No. - N° de dossier PWB-3-36036 (020)	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2013-09-24**	**Time Zone** **Fuseau horaire** Atlantic Daylight Saving Time ADT
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☐ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Donovan, Janine PWB	**Buyer Id - Id de l'acheteur** pwb020
Telephone No. - N° de téléphone (506) 636-5347 ( )	**FAX No. - N° de FAX** (506) 636-4376
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	

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

Instructions: See Herein

Instructions: Voir aux présentes

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

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Canada

Cette modification de l'invitation numéro quatre (4) est soumise et comprend la modification numéro quatre (4) suivante.

La modification qui suit apportée aux documents de soumission entre en vigueur dès maintenant. L'addenda fera partie des documents de contrat.

Toutes autres conditions ne changent pas.

Addenda numéro 4.

1. DEVIS - ARCHITECTURAL

1. Reference Specification Section 08 71 10:

Delete Specification Section 08 71 10 - Door Hardware and replace with the attached Section 08 71 10 - Door Hardware dated 2013-09-16.

2. Add Specification Section 09 68 00 - Carpeting - (9 pages), attached.

3. Reference Specification Section 10 21 20 - Plastic Toilet Partitions, Article 2.1.1, Revise: ".1 Acceptable Material: Bobrick or an approved equal." To read ".1 Acceptable Material: Bobrick, Global or an approved equal."

2. DEVIS - MECHANIQUE

1. Acceptable Manufacturers:

The following manufacturers shall be considered equal to the specified products, provided they meet or exceed the quality and performance of the specified products in all respects:

Spec / Drawing	Paragraph	Product	Manufacturer
23 05 48	2.2.2	Elastomeric Pads	Mason
	2.4.6	Spring Mounts	Mason
	2.5.6	Hangers	Mason
	2.6.2	Acoustic Barriers and Guides	Mason
	2.7.4	Structural Base	Mason

23 21 14	2.4	Expansion Tank	Bell & Gossett
	2.5	Air Separator	Bell & Gossett
23 21 23	2.2	Suction Diffuser	Bell & Gossett
		Triple Duty Valves	Bell & Gossett
23 33 15	2.1.1	Multi-Leaf Dampers	Tamco, Alumavent/Ventex
	2.2.1	Back Draft Dampers	Tamco, Alumavent/Ventex
	2.3.1	Relief Dampers	Tamco, Alumavent/Ventex
23 33 16	2.1.7	Fire Dampers	EH Pirce, Ventex/Alumavent
23 36 00	2.2.12	Supply VAV Boxes	Nailor Industries, Titus
	2.3.6	Exhaust/Return VAV Boxes	Nailor Industries, Titus
	2.4.1.2	Coils	Nailor Industries, Titus
23 37 13	2.3.6	S-1, S-2, S-3, S-4 and S-5 Supply Grilles	Nailor Industries, Titus, Tuttle & Bailey
	2.4.1	S-6 Supply Diffuser	Nailor Industries, Titus, Tuttle & Bailey
	2.5.2	Return/Exhaust Grilles	Nailor Industries, Titus, Tuttle & Bailey
	2.6.2	Exhaust Grille	Nailor Industries, Titus, Tuttle & Bailey
23 73 11	2.1.12.7	Packaged Air Handling Unit	McQuay (Note 1)
23 82 21	2.1.9	Cooling unit	Daikin (Note 2)
23 84 13	2.1.14	Humdifier	DriSteam

Note 1: The unit must not exceed the physical size of the specified unit AHU-1 - 3912mm x 2590mm x 1676mm, AHU-3 - 3733mm x 2210mm x 1600mm.

Note 2: Must be compatible with existing Mitsubichi system.

2. References to Mechanical Specifications:

Add the following references to mechanical specifications as follows:

Section 01 35 43 - Environmental Procedures
Section 01 45 00 - Quality Control
Section 01 74 21 - Construction/Demolition Waste Management & Disposal
Section 01 91 13 - General Commissioning Requirements
Section 02 81 01 - Hazardous Materials

Spec Section	01 35 43	01 45 00	01 74 21	01 91 13	02 81 01
83100.01	X				
210719		X			X
212200	X				
221010	X				
221317	X				
230505	X				
230513.01				X	
230513	X				
230517	X				
230519.01	X				
230523.01	X				
230553.01	X		X		
230593				X	
230713	X		X		
232114	X		X		
232123			X	X	
232300	X			X	X
233113.01	X		X		
233113.02	X		X		
233300	X		X		X
233316	X				
233346	X		X		
233353	X		X		
233600	X		X		
233713	X		X		
235200				X	
236427	X		X	X	
237311	X		X		
237400	X		X	X	
238123	X		X		
238221	X		X	X	
228413				X	

250501				X	

3. Reference Specification Section 21 22 00:

Clarification

There is an existing single interlock preaction system that shall be reused. The new clean agent system shall be supplied complete, including all controls and alarms to interconnect with existing system.

4. Reference Specification Section 23 73 11:

Revise paragraph 12.3 - Cooling Coils - as follows:

	AHU-1	AHU-3
EAT	26.6°C DB / 20 °C WB	26.6°C DB / 20 °C WB
LAT	12.8°C DB / 12.4°C WB	12.9°C DB / 14°C WB

3. QUESTIONS ET RÉPONSES - ÉLECTRIQUE

Q1: On drawing E-110 it says to replace Panel PP4, this panel was replaced 2010

R1: Contractors to allow for replacing panel PP4 and provide a spate price for removal of replacement of this panel.

Q2: Section 260500 p.7 - 1.11.2.5.5 heating, does this pertain only if there is any electric baseboard heating on the project

R2: Section 260500p.7-1.11.2.5.5 only applies if there is electric baseboard heating

Q3: Is the electrical contractor to carry the costing for the tel & data wiring. There is no specification

R3: All data and telephone wiring is to be included in the electrical contract. All data and telephone wiring is to be Cat6.

Q4: All cutting & patching & core drilling must be done by G.C, remove 260500 p.15 - 3.11 cutting from electrical spec. See sect. 011010 p.4

R4: The electrical contractor is to coordinate with general contractor for all cutting and patching. If they do not coordinate all of the holes it is their responsibility to have the holes done.

Q5: Section 260534 p.3 - 3.2.6 can we use 16mm conduit for lighting & power

R5: Minimum size of conduit is 19mm.

Q6: Section 262419 motor control centres. This reads as if the existing MCC # 1 &2 need to be replaced yet on drawing E-110 it says to add & delete components as required.

R6: Reference section 260534: make modifications to MCC as per the electrical drawings , adding and deleting components as required.

Q7: Section 262726 wiring devices there is no mention of 20A/125V duplex receptacle.

R7: Reference section 262726: all wiring devices to be 20A/125 volt as per the drawings.

Q8: Section 260521 p.2 - 3.2.5 mentions branch circuit wiring for surge suppression receptacles & permanently wired computers. Does this paragraph apply to the whole floor areas or only in computer rooms.

R8: Reference section 260521p.2 - 3.2.5 is intended to provide surge protection for all computers which are indicated as being hard wired or where a surge suppression receptacle has been indicated on the drawings. In the project we are, primarily, using a panel which has surge suppression.

Q9: From speaking to IT contact at PWGSC building it is our understanding that all fiber optic cabling related work shall be completed by others and is NOT part of this contract, can you please confirm?

R9: Vertical data distribution is existing.

Q10: From review of the plans and speaking to IT contact onsite it is our understanding that supply / installation of all racking/cabinets shall be performed by others and is NOT part of this contract, can you please confirm?

R10: Racking and cabinets for the data systems are existing.

Q11: From speaking to IT contact onsite it is our understanding that as part of the construction contract we will be required to provide voice multipair connection between telco providers BIX demark in each lan room to the rack within the same room and terminated on patch panels. Can you please provide confirmation on this requirement as well as details on number of pairs required between rack & BIX in each room as well as desired Category rating of multipair ie: Cat3 or Cat5e?

R11: The contractor is required to provide voice multipair connection between telco providers BIX demark in each lan room to the rack within the same room and terminated on patch panels. All voice and data wiring is to be Cat6.

Q12: From review of plans can you please confirm that voice cabling for the first floor will terminate in new LAN room and NOT in existing telco room #163?

R12: Voice wiring for the first floor will terminate in the LAN room and not room 163.

Q13: In reference to Answer #13(Add #3), where statement only states that "all Cabling is to be Cat6" it is my understanding that this means that tender is open to all cabling manufactures such as but not limited to Belden, Panduit, Hubbell, Leviton, etc correct?

R13: Yes this is correct

Q14: In reference to Answer #14(Add#3), where answer did NOT elaborate on patch cords for both Data cabling and Voice cabling as on the drawings there is a distinction it is my understanding that patch cords are only required for Data cabling correct?

R14: Patch cabling is required for both voice and data.

Q15: In reference to Answer #16(Add#3), where the answer states all Data cabling to be terminated on patch panels are we to assume that there is no distinction between voice & data cabling which is contrary to what the plans and previous answer in addendum #3 seem to indicate?

R15: Voice and data are to be mounted on separate patch panels.

Q16: In reference to Solicitation Amendment No. 3. Answer(s) 8 & 9: Are we to assume any and all backbone cables require are existing and that if modifications or additional backbone cabling is required that this shall be performed by others and is NOT part of this contract?

R16: All vertical backbone cabling is existing.

4. QUESTIONS ET RÉPONSES - GÉNÉRAL

Q1: Please confirm that the third floor will be included in Phase 1 and the substantial completion date for each phase.

R1: The first phase will encompass the replacement of several HVAC units on the roof and in the 3rd floor mechanical room, fit-up of the east half of the 1st floor and the complete office area of the 3rd floor. The work on the 3rd floor and all ancillary work to make this floor fully operational is requires to be completed by mid-May 2014.

Q2: Section 02 41 13, Selective Site Demolition: This spec is strictly for exterior site demolition. Will a specification be issued for interior selective building demolition?

R2: Yes. Add Specification Section 02 41 19 - Selective Demolition - (3 Pages), attached.

Q3: Will all work be done during normal work hours or will noisy work have to be performed during off-hours due to the tenant on the 2nd floor? Can you please address this in an addendum so that bidders are aware if there are potential off-hours that need to be included?

R3: Work involving slab trenching, jack hammering, core drilling, grinding and attachment to steel structure, both levels, and floor slab (mechanical anchoring of stud tracks, etc.)to be conducted "after hours".

Q4: Could type "B" walls use " drywall instead of 5/8" because most of the walls are curved.

R4: Yes.

Q5: What Phase is level 3 part of?

R5: Phase 1.

Q6: Type "F" is on which side of the existing wall?

R6: Type "F" wall to be on Rooms 133, 123, 324, 326, 322, 321, 334 and 331 (Typically on Office, Corridor, Meeting Room side of walls).

Q7: Wall types "A", "B", "D", "E", "F" and "G" are shown to have drywall go to 300mm above ceiling but wall types "A", "B", "D" and "G" still have STC ratings listed beside them. Would not drywall need to go to deck to achieve these ratings?

R7: Wall type "B" does not require STC rating, wall type "A" requires STC rating as indicated in notes on drawings. Wall type "D" does not require STC rating. Wall type "G" requires STC rating - wall to extend to u/s of deck.

5. DESSINS - MÉCHANIQUE

1. Reference Drawing H-602:

Sprinkler contractor shall install heads under air handlers and ducts greater than 1200 wide. Allow for 15 heads.

6. DESSINS - ÉLECTRIQUE

1. Reference drawing E-101

.1 Updated lighting controls in the following rooms (see floor plan for changes); 125, 104, 103, 118, 119, 130, 126, 129, 124, 145, 144, 152, 151, 159

.2 Fixture type "B" description altered to indicate dimming capability and ballast product number

.3 Fixture type "A" description altered to indicate ballast product number

.4 Fixture type "D" manufacturer alternate changed to Ecosense

.5 "Lighting Legend" altered for toggle switches and ceiling mounted switches to include part numbers and correct descriptions

.6 Subscript on scene controller in room 133 changed to "C" rather than "e" as intended

2. Reference drawing E-105

.1 Updated lighting controls in the following rooms (see floor plan for changes); 326, 322, 321, 313, 312, 315, 328, 334, 337

3. Reference drawing E-111

.1 Updated lighting controls diagram to indicate Pico Wired scene controllers

.2 Updated lighting controls diagram to include the Lutron Relay Panels which are required to control pot lights and cove lighting as indicated on floor plans.

Part 1 General

1.1 GENERAL REQUIREMENTS

.1 Comply with requirements of Division 1.

.2 Furnish and delivery of all finish hardware necessary for all doors. Also hardware as specified herein and as enumerated in "Set Numbers" and as indicated and requested by actual conditions of the building. The hardware shall include the furnishing of all necessary screws, special screws, bolts, special bolts, expansion shields, drop plates and all other devices necessary for the proper installation of the hardware.

.3 The Department Representative approval of the schedule will not be construed as certifying that the list is complete. Acceptance of the Hardware Schedule does not relieve the supplier of responsibility of errors or omissions.

.4 Hardware should not be ordered unless a corrected copy of the shop drawings is reviewed and returned from the specification writer and bearing the approval of the Department Representative.

.5 Aluminum Door hardware is to be ordered immediately after approval of shop drawings and shipped directly to the Aluminum Door supplier.

.6 Furnish, deliver and install all finish hardware necessary for all doors, also hardware as specified herein and as enumerated in hardware group indicated by actual conditions at the project site.

.7 The electrical hardware shall include the furnishing of plug in connections and final connections of Low voltage wiring at the door opening. Electrical hardware devices to be installed by section 08 71 00 with all final connection with termination above the frame. Electric hardware devices for the proper operation and application of the hardware noted by connection notes in the hardware schedule. Power, conduit, low voltage wire to junction box above the frame. Connection of the card readers, maglocks and high voltage wire by the electrical section Division 26.

.8 Division 26 to provide high voltage wiring and conduit to the door opening or power supplies including conduit to hardware locations.

1.2 REFERENCES

.1 American National Standards Institute (ANSI) A117.1 Specification

.1 ANSI/BHMA A156.1-2006, Butts and Hinges.
.2 ANSI/BHMA A156.26-2006, Continuous Hinges.
.3 ANSI/BHMA A156.13-2005, Mortise Locks and Latches.
.4 ANSI/BHMA A156.3-2001, Exit Devices.
.5 ANSI/BHMA A156.4-2000, Door Controls (Closers)

.6 ANSI/BHMA A156.5-2001, Auxiliary Locks and Associated Products.

.7 ANSI/BHMA A156.6-2005, Architectural Door Trim.

.8 ANSI/BHMA A156.7-2003, Template Hinge Dimensions.

.9 ANSI/BHMA A156.8-2005, Door Controls - Overhead Holders.

.10 ANSI/BHMA A156.15-2006, Closer/ Holder Release Device.

.11 ANSI/BHMA A156.16-2002, Auxiliary Hardware.

.12 ANSI/BHMA A156.18-2006, Materials and Finishes.

.13 ANSI/BHMA A156.19-2007, Power Assist and Low Energy Power Operated Doors.

.14 ANSI/BHMA A156.21-2006, American National Standards for Thresholds.

.15 ANSI/BHMA A156.22-2005, Door Gasketing and Edge Seal Systems.

.16 ANSI/BHMA A156.24-2003, Delayed Egress Locks.

.17 ANSI/BHMA A156.25-2002, Electrified Locking Devices.

.18 ANSI/BHMA A156.29-2001, American National Standards for Exit Locks, Exit Locks with Alarms, Exit Alarms, Alarms for Exits.

.19 ANSI/BHMA A156.30-2003, American National Standards for High Security Cylinders.

.20 ANSI/BHMA A156.31-2001, American National Standards for Electric Strikes and Frame Mounted Actuators.

.2 Canadian Standards Association (CSA)

.1 CAN/CSA-B651-04.Accessible Design for the Built Environment.

.3 Canadian Steel Door Manufacturer's Association (CSDMA).

.1 Standard Hardware Locations in Accordance with the Canadian Steel Door and Frame Association Guidelines.

.2 Recommended locations for Architectural Hardware for Wood Flush Doors.

.4 National Fire Protection Agency (NFPA)

.1 NBC - National Building Code (1995)

.2 NFPA-80 - 2007 - Standard for Fire Doors and Windows.

.3 NFPA101 - Life Safety Code (2000)

.4 NFPA-105 - Smoke and Draft Control

1.3 ABBREVIATIONS

.1 The following abbreviations are applicable to this section:

.1	AHC	Architectural Hardware Consultant
.2	ALD ALF	Aluminum Door and Frame
.3	ATMS/STMS	Arm/Strike to Template with Machine Screws
.4	BB or FBB	Ball Bearing Hinges
.5	BC	Back Check
.6	BTB	Back to Back
.7	B3E or B4E	Bevel 3 or 4 sides
.8	C to C, C/L	Centerline to Centerline
.9	CDC	Certified Door Consultant

.10	CMK	Construction Masterkeyed
.11	CSC	Construction Specifications Canada
.12	CSK	Countersunk Screw Holes.
.13	Cyl.	Cylinder of a lock
.14	Deg.	Degree of opening
.15	DEL	Delay Action
.16	DHI	Door and Hardware Institute
.17	DR	Door
.18	FC	Full Cover
.19	FS	Fail Safe
.20	FSE	Fail Secure
.21	FTMS	Full template machine screws
.22	½ TMS	Half template machine screws
.23	GMK	Grand Masterkeyed
.24	KA/KD	Keyed Alike, Keyed Different
.25	HMD/PSF	Hollow Metal Door, Pressed Steel Frame
.26	LH/RH	Left Hand, Right Hand
.27	LHR/RHR	Left Hand Reverse, Right Hand Reverse
.28	MK or MKD	Master Keyed
.29	NBC	National Building Code
.30	NRP	Non removable pin
.31	TB/SB	Thru Bolts, Sex Bolts
.32	TJ	Top Jamb
.33	ULC	Underwriters Laboratories Canada
.34	WD	Wood Door

1.4 SUBMITTALS

.1 Product Data:

.1 Submit manufacturer's printed product literature, specifications and data sheets in accordance with Sections 01 33 00 and 01 78 00.

.2 Samples:

.1 Upon Department Representative request submit samples of door hardware in accordance with Sections 01 33 00 and 01 78 00.

.2 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.

.3 After approval samples will be returned for incorporation in the Work.

.3 Hardware List:

.1 Submit detailed hardware list and keying schedule in accordance with Sections 01 33 00 and 01 78 00.

.2 Hardware Schedule is to be submitted as per DHI vertical format which is in the "Sequence and Format for Hardware Schedules".

.3 Indicate specified hardware including make, model, material, function, size, finish and other pertinent information.

.4 Furnish other Sections with templates required for hardware preparation and installation. Issue templates when requested so as not to cause any delays but not before hardware list has received final review by Department Representative.

.5 Keying Schedule to be in accordance with DHI manual "Keying Systems Names and Nomenclature". Key schedule is not to hold up the processing of the hardware list.

.6 Wiring Diagrams will only be supplied after the final approval of the Hardware Schedule. Submit wiring diagrams as requested for proper installation of electrical, electrical-mechanical and electrical-magnetic products.

.4 Manufacturer's Instructions: Submit manufacturer's installation instructions.

.5 Closeout Submittals: Provide operation and maintenance data for door closers, locksets, door holders, electrified hardware and fire exit hardware for incorporation into Operations and Maintenance Manuals specified in Section 01 78 00.

1.5 WARRANTY

.1 Provide guarantee.

.1	Closers	10 year
.2	Mortise Locks electrical	10 year mechanical / 2 year
.3	Electronic Closer	2 year
.4	Exit Device	3 years
.5	Hinges	Lifetime of Building
.6	All other Hardware	1 year

1.6 QUALITY ASSURANCE

.1 Regulatory Requirements: hardware for doors in fire separations and exit doors certified by a Canadian Certification Organization accredited by Standards Council of Canada.

.2 Meet requirements of National Building Code of Canada and other applicable regulations.

.3 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

.4 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

.5 Pre-installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

.6 Upon completion of finish hardware installation, hardware supplier shall inspect work and shall certify in writing that all items and their installation are in accord with requirements of Contract Documents and are functioning properly.

1.7 PRODUCT DELIVERY, HANDLING & STORAGE

.1 Packing, Shipping, Handling and Unloading:

.1 Deliver, store, handle and protect materials in accordance with Sections 01 33 00 and 01 78 00.

.2 Package each item of hardware including fastenings, separately or in like groups of hardware, with necessary screws, keys, instructions and installation templates.

.3 All items of hardware should be itemized and tagged as per the approved Finish Hardware Schedule.

.4 Hardware for Aluminum Doors to be shipped directly to the Aluminum Door supplier. Hardware for Aluminum Doors will be ordered immediately after approval of shop drawings. Delays in ordering the Aluminum Door hardware will not be accepted.

.5 Shortages will not delay installation.

.6 Items damaged in shipment will be replaced properly with proper material.

.7 All Hardware shall be handled in a manner to avoid damage, marking and scratching.

.8 Hardware is to be inventoried on site and confirmed by the Contractor and Hardware Supplier.

.2 Storage and Protection:

.1 Store hardware in locked, clean and dry area.

1.8 WASTE DISPOSAL AND MANAGEMENT

.1 Separate and recycle waste materials in accordance with Section 01 78 00.

.2 Collect and separate metal, plastic, paper packing and corrugated cardboard and deposit in appropriate on site recycling bins.

.3 Dispose of corrugated cardboard, plastic packaging material in appropriate on-site bin for recycling in accordance with site waste management program.

1.9 MAINTENANCE

.1 Provide maintenance materials in accordance with Section 01 78 00.

.2 Provide three sets of maintenance tools for closers, locks and exit devices as well as a complete set of installation instructions.

.3 After the building is occupied, arrange for an appointment with the owner to instruct them of proper use, service, adjusting and maintenance of the hardware furnished in this section.

.4 Extra Material if required.

1.10 INSPECTION

.1 The hardware supplier shall arrange at least four visits to the job site.

.1 Visit project at time of delivery of hardware and inspect the personnel who will be looking after the installation and issuing of hardware at the job site. Delivered hardware to be received, sorted and itemized at the jobsite with contractor.

.2 Second visit will be required for key meeting with the Department Representativeat a location at their request.

.3 Third visit will take place when about sixty percent of hardware is installed.

.4 Check all hardware on site and correct any errors or shortages. Co-ordinate with contractor to determine proper time for visit.

.5 Fourth visit shall take place just prior to building turnover. All hardware shall be checked for proper installation and adjustment. Any errors shall be corrected and adjustments made. Check the key system and furnish a report along with maintenance manuals detailing any errors found.

.6 Cost of this service will be included as part of this Section and is not covered by any allowance amount.

Part 2 Products

2.1 HARDWARE ITEMS

.1 Only locksets and latchsets listed are acceptable for use on this project.

.2 Use one manufacturer's products only for all similar items.

.3 Manufacturer's Listed:

.1 Hinges

.1 McKinney - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.2 Continuous Hinges

.1 McKinney - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.3 Locks

.1 Sargent - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.4 Exit Devices

.1 Sargent - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.5 Closers

.1 Sargent - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.6 Power Operators

.1 Besam Entrance Solutions, Royal Door Ltd., 105 Henri Dunant Street, Moncton, NB, E1E 1E4.

.7 Flush Bolts

.1 Rockwood Manufacturing - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.8 Overhead Stops

.1 Sargent - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.9 Flatware

.1 Rockwood Manufacturing - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.10 Floor/Wall Stops

.1 Rockwood Manufacturing - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.11 Weatherstrip/Thresholds

.1 Pemko - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.12 Key Cabinet

.1 Telkee, 60 Starlifter Ave. Dover Delaware 19901-9254.

.13 Electromagnetic Locks

.1 Securitron - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan Ontario, L4H 4T9.

.14 Power Supplies

.1 Securitron - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan Ontario, L4H 4T9.

.15 Electric Strikes

.1 HESS - ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan Ontario, L4H 4T9.

2.2 DOOR HARDWARE

.1 All fasteners to come complete with the hardware as described. Hardware supplier must be Advised immediately if required fasteners are not enclosed with hardware.

.2 Hardware must be installed with fasteners supplied by the manufacturer.

.3 Hinges Butts and hinges: to ANSI/BMHA A156.1, as listed in Hardware Schedule.

.1 Non removable pins (NRP) for all exterior and out swinging secure doors.

.2 Exterior hinges and hinges in wet areas of stainless steel, brass or bronze.

.3 Interior hinges of plated steel, unless otherwise noted.

.4 Size and quantity to be as the manufacturers hinge selection guide.

.5 Unless otherwise scheduled, supply (1) hinge for every 762mm of door height.

.6 The width of hinges shall be sufficient to clear all trim.

.7 All hinges to be five-knuckle design and ball bearing.

.8 All electric hinges to be supplied with Electrolynx QC plug in connectors as specified.

.9 Finish to Dull Chrome 26D.

.10 Standard of Acceptance:

.1 Specified Acceptable Alternates

.2	McKinney	Hager	Stanley
.3	TA2714	BB1279	FBB179
.4	TA2314	BB1191	FBB191
.5	TA3786	BB1168	FBB168
.6	TA3386	BB11699	FBB199

.4 Continuous Geared Hinges: to ANSI/BMHA A156.26.

.1 Provide continuous hinges of the type and style noted in the Hardware legend.

.2 To be non-handed and completely reversible.

.3 Material: Extruded tempered aluminium.

.4 Material Standard: 6063-T6 Alloy.

.5 Configuration: Three interlocking extrusions in pinless assembly, installed to full height of door.

.6 Type: Full Mortise: 45mm for extra heavy duty weights.

.7 Length: Full height less 25mm.

.8 Strength: Heavy Duty - 27 bearings each leaf for 2108mm, minimum door weight 245 kg.

.9 Mortise Fasteners: TEK, #12 x ¾" inch, FHUC, Philips head screws.

.10 Size to suite door height complete with installation aids and fasteners to suit door an frame conditions.

.11 All electric hinges to be supplied with Electrolynx QC plug in connectors as specified.

.12 Finish to Anodized Aluminum US28.

.13 Standard of Acceptance:

.1 Specified Acceptable Alternates

.2	McKinney	Pemko	Hager (Roton)
.3	MCK-12HD	CFM83SLFHD	780-112HD

.5 Bored locks and Preassembled Locks and Latches:

.1 Bored locks and latches: Locks shall exceed the requirements of ANSI/BHMA A156.2 -2003, series 4000 bored lock, grade 1, designed for function as stated in Hardware Schedule. Exceeds 1.5 times A156.2 Grade 1 requirements.

.2 Locks shall be non-handed with bi-directional lever operation, except the "G" and "Y" lever designs.

.3 Through-bolt mounting shall be adaptable to fit a variety of standard cylindrical lock preps.

.4 Locks shall comply with UL10C and UBC 7-2 positive pressure requirements.

.5 Locks required for fire doors shall be listed by Underwriters Laboratories for

ratings of 3 hours (A label) and less, for doors up to 4'0" (1.2m) x 10'0" (3.0m) and pairs of doors 8'0" (2.4m) x 10'0" (3.0m). Lock levers shall be made of solid material.

.6 Lock shall be available in a minimum of six different lever designs.

.7 Locks shall have a 2-3/4 inch (70mm) backset standard.

.8 Strikes shall be non-handed with a curved lip. Provide wrought boxes with strikes.

.9 Locks shall have brass 6-pin cylinder standard.

.10 Provide two nickel silver keys with each lock.

.11 Finished to 26D.

.12 Standard of Acceptance:

.1	Specified	Acceptable Alternates		
.2	Sargent	Corbin	Yale	Schlage
	10 Line	CL3300	5400LN	ND

.6 Mortise locks and latches: to ANSI/BMHA A156.13, Series 1000 mortise lock, grade 1, designed for function as stated in Hardware Schedule.

.1 Locks shall meet or exceed the requirements of ANSI/BHMA A156.13 Series 1000, Operational Grade 1, and Security Grade 1 with all standard trims.

.2 Meets or exceeds impact requirements of ASTM F1577-95b Detention Locks for Swinging Doors.

.3 Locks shall be easily re-handed without opening the lock body.

.4 Multi-functional lock body to make it easy to change functions in the field.

.5 Locks shall comply with UL10C and UBC.

.6 Construction: Lock functions shall be manufactured in a single-sized case formed from 2.6mm steel minimum.

.7 Locks shall have field adjustable, beveled, armored front, with a 3mm thickness minimum.

.8 Locks shall have a one piece, 19mm throw anti-friction stainless steel latch.

.9 Deadbolts, where specified, shall be full one inch 25mm throw made of one-piece hardened stainless steel.

.10 Locks shall have a 70mm backset, standard.

.11 Electrical functions Fail Safe and Fail Secure, Voltage 12VDC or 24VDC Regulated. Full wave rectification installed inside the lockbody. Current .25 at 24VDC and .5 at 12VDC. UL and CUL listed for use on fire doors. Operating temperature: Max 66 (C) degrees and Min. -35(C) degrees.

.12 Strikes shall be non-handed with a curved lip. Strikes for pairs of doors to be supplied with short lip strike (82-0229). Not to extend beyond the face of the door.

.13 To ensure proper alignment, trim, knobs or levers, shall be through-bolted and fully interchangeable between rose and escutcheon.

.14 Lever handles: "LNL" design.

.15 Roses: round.

.16 Finished to 26D.

.17 Standard of Acceptance:

	Specified	Acceptable Alternates
.1	Sargent	Corbin
.2	8200 - Series	ML2200

.7 Exit Devices: to ANSI/BMHA A156.3, Grade 1.

.1 Modern touch pad type, fabricated of brass, bronze, stainless steel or aluminum.

.2 UL listed for Accident Hazard or Fire Exit Hardware as required.

.3 Hex key dogging standard on non fire-rated exit devices. Cylinder dogging where specified.

.4 Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be ULC labeled fire exit hardware.

.5 Include all electrified functions as specified.

.6 Device Length as per manufacturer's guidelines.

.7 The design of the exit device shall eliminate the necessity of removing the device from the door for standard maintenance or keying changes.

.8 Trim as specified shall be through-bolted.

.9 All vertical rod in pairs to be less bottom rod where noted.

.10 Extension rods are required as per manufacturer's requirements.

.11 Electronic exit devices to have Linx quick connectors (QC).

.12 Exit devices to suite doors over 45mm where required.

.13 Standard of acceptance:

	Specified	Acceptable Alternates
.1	Sargent	Corbin
.2	8800 - Series	ED5200

.8 Door controls (closers): to ANSI/BMHA A156.4 as listed in Hardware Schedule.

.1 Modern type, surface applied.

.2 All closers for both interior and exterior doors shall be the product of one manufacturer and be matched in style.

.3 Surface closers shall be adjustable to provide sizes 1 through 6 and comply with ADA.

.4 Full rack and pinion construction.

.5 Closing speed, latching speed and backcheck shall be controlled by key operated valves.

.6 Captivated valves.

.7 Delayed action feature shall be available and controlled by a separate valve.

.8 Delayed action shall be available in addition to, not in lieu of, backcheck.

.9 The one piece closer body shall be of die cast aluminum alloy with 14% silicon minimum content. An increase of 15% in closing power shall be provided by means of adjustment of the arm leverage at the foot connection. (Standard Arm).

.10 All arms shall be finely finished with heavy duty forged steel main arm.

.11 Two mounting positions of the closer shall meet all requirements. Standard mountings shall provide 120° door opening and alternate mounting 180° door opening.

.12 All closers shall be suitable for standard, top jamb, parallel arm and track type applications when provided with proper brackets and arms.

.13 Closer covers shall be of high impact plastic material of flame retardant grade.

.14 Secured by machine screws.

.15 Spring power shall be continuously adjustable over the full range of closer sizes and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be tamper proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and backcheck.

.16 All closer to have a forged steel main arm and forged forearm for parallel arm closers.

.17 Finish to Aluminum 689.

.18 Standard of acceptance:

.1 Specified Acceptable Alternates:

.2	Sargent	Norton	Corbin	LCN	Dorma
.3	1431	8500	DC6200	1460-FC	8600
.4	351	7500	DC3000	4040	8900
.5	421	2800ST			TS-93

.9 Auxiliary locks and associated products: to ANSI/BHMA A156.5, as listed in Hardware Schedule.

.1 Cylinders: Rim and Mortise, length to suite, cam to suite.

.2 Small Case Mortise Deadbolt, classroom function.

.3 Finished to Dull Chrome 626.

.4 Standard of acceptance:

.1 Specified Acceptable Alternates:

.2	Sargent	Corbin	Yale
.3	4800	DL4000	300

.10 Architectural door trim: to ANSI/BHMA A156.6, as listed in Hardware Schedule, finished to stainless steel 32D.

.1 Door protection plates: kickplates type, 1.3 mm thick stainless steel, 203mm high, unbevelled edges, width less 40mm push side, width less 25mm on pull side for single doors. Width less 25mm for pairs. Finished to stainless steel 630.

.1 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	Rockwood	Standard Metal	Ives	Hager
.3	K1050	K10A	8400	190S

.2 Push plates: 1.3 mm thick stainless steel, size 89mm x 381mm, finished to stainless steel 630.

.1 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	Rockwood	Standard Metal	Ives

.3 70RC K14A 8200RC

.3 Door Pulls: 19mm round pull, 228.6mm center to center pulls, with 76mm x 305mm protection plate, mount type 1, finished to stainless steel 630.

.1 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	Rockwood	Standard Metal	Ives
.3	111 x 73CL	K14 x 2409-1(RC)	8303

.4 Door Pulls: 32mm Round Offset Pull, mount type 1, 1220mm center to center, mounting to be with a security bolt (#4B) for single application and (#5) for back to back, finished to stainless steel 630.

.1 Standard of acceptance: Standard Metal D-352 x Mnt.

.1 Specified Acceptable Alternates

.2	Rockwood	Standard Metal	Ives	CBH
.3	BF159	3018-2	8190-18	2018-1

.11 Door controls - overhead stop: to ANSI/BMHA A156.8, heavy duty construction, BHMA Grade 1 Certified, heavy duty architectural bronze construction.

.1 UL Classified: The 590 and 690 stops are UL 10B and UL 10C classified as miscellaneous fire door accessories.

.2 Corrosion resistance: Brass construction provides corrosion resistance in a variety of conditions.

.3 Holder Selector: 590 and 690 series holders are equipped with a turn knob to activate and deactivate the hold open function

.4 Thru bolts capture channel and end caps.

.5 Heavy duty shock spring absorbs load and gradually stops door.

.6 Blade shim required for all Aluminum Doors.

.7 Sized as per manufacturer's guidelines. Take into account other hardware mounted on doors.

.8 Finishes

.1 Exterior to stainless steel, 26D.

.2 Interior to steel sprayed finish, EN.

.9 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	Rixson Johnson	Sargent	Glynn
.3	#1 (Concealed)	690	100
.4	#9 (Surface)	590	90
.5	#2 (Concealed)	1530	410
.6	#10 (Surface)	1540	450

.12 Door Stops and Holders and Auxiliary hardware: to ANSI/BMHA A156.16 designated by letter L and numeral identifiers as listed in Hardware Schedule finished to 26D.

.1 Floor stops dome style classification. Low dome or High dome. Die cast brass. Stops to be sized according to door clearances, thresholds or undercuts as noted in the Door Schedule. Fasteners to suite floor conditions.

.1 Standard of acceptance:

	Specified	Acceptable Alternates
.2	Rockwood	Standard Metal
.3	441	S101
.4	443	S103
.5	483	S110

.2 Wall stops classification, convex or concave, cast brass or bronze. Fasteners to suite wall conditions.

.1 Standard of acceptance:

	Specified	Acceptable Alternates
.2	Rockwood	Standard Metal
.3	406	S121
.4	409	S123

.3 Flush Bolts classification. Meets ANSI/BMHA A156.16. Bolt tip is 13mm Diameter with 19mm throw and bolt backset of 19mm. To be supplied with F68 Dust Proof Strike.

.1 Wood doors

.1 Standard of acceptance: DCI 790.

.2 Metal Doors

.1 Standard of acceptance: Standard Metal F65.

.3 Standard of acceptance:

	Specified	Acceptable Alternates		
.2	Rockwood	Standard Metal	DCI	Ives
.3	557		790	FB358
.4	555	F65	780	FB458
.5	570	F68	80	DP2
.6	1840	840	840	FB31
.7	1940	940	940	FB41

.13 Thresholds and Weatherstripping Thresholds: to ANSI/BMHA A156.21.

.1 Saddle threshold 152.4 mm wide x full width of door opening, extruded aluminum mill finish, serrated surface, with thermal break of rigid PVC.

.2 Panic threshold 93.7 mm wide x full width of door opening, extruded aluminum mill finish, serrated surface, with lip and vinyl door seal insert.

.3 Standard of acceptance:

	Specified	Acceptable Alternates	
.2	PEMKO	KN Crowder	Hager
.3	179AP	CT-39P	552W
.4	252 x 3AFG	CT45A	421S
.5	251 x 226AFG	CT49A	515S

.14 Door Gasketing and Edge Seal Systems: to ANSI/BMHA A156.22.

.1 Head and Jamb seal:

.1 Extruded aluminum frame and neoprene insert, clear anodized finish.

.2 Surface overhead stops and exit device strikes to mount on top of weatherstrip to provide continuous seal.

.3 Adhesive backed black "Santoprene" to provide smoke, light and sound control. Fire labeled 1 1/2hrs.

.4 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	PEMKO	KN Crowder	Hager
.3	319S	W-14S	878S
.4	290APK	W20N	881S
.5	2891AS	W20S	881S
.6	S88B	W22	726S
.7	288B	W21	726S

.2 Door bottom seal:

.1 Extruded Aluminum frame and nylon brush sweep, clear anodized finish.

.2 Heavy duty, door seal of extruded aluminum frame and solid closed cell neoprene weather seal, recessed in door bottom, closed ends, automatic retract mechanism when door is open, clear anodized finish.

.3 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	PEMKO	KN Crowder	Hager
.3	3452CNB	W35-1	770SB
.4	18100CNB	W24S	801SB
.5	4301	CT-52	747S

.3 Astragal:

.1 Flat overlapping extruded aluminum by door height with pile insert.

.2 Meeting astragal extruded aluminum frame with brush insert by each door by door height, clear anodized finish.

.3 Standard of acceptance:

.1 Specified Acceptable Alternates

.2	PEMKO	KN Crowder	Hager
.3	357CS	W8S	835S
.4	18061CNB	W-25S	802SB
.5	3672A	W8P	835

.15 Power Supplies:

.1 Dual output, field selectable 12 or 24 VDC via clearly marked toggle switch.

.2 Supplies 1 full AMP continuous current output, even while charging back-up batteries.

.3 SPDT AC monitoring output allows for remote monitoring of the power supply's 110V AC input.

.4 Separate voltage inputs for load and battery allow the batteries to charge at a higher output while the load remains at exactly 12 or 24 VDC.

.5 LED indication (AC & DC) showing power supply status UL listed low current fire alarm disconnect requires only a minimum size fire alarm relay and wire gauge Polyswitch type breakers allow for large short duration inrush current if batteries are installed (approx. 20A for 1

second) Line voltage and DC fuses Sealed lead acid-gel battery charging capability (battery not included).

.6 UL Class 2, linear regulated power supply provides the cleanest power available sensitive, active safety and security devices.

.7 UL Listed.

.8 CFAR Relay - Securitron's Fire Alarm reset module interconnects with a Securitron BPS series power supply and a fire alarm (made by others). The purpose is to provide additional safety and control in an installation where activation of the fire alarm is intended to switch off the BPS power supply.

.9 This is often done to release power to magnetic locks which are installed on perimeter doors so as to permit safe evacuation in the event of a fire. The module has three specific functions:

.1 It will maintain the released condition of devices released by activation of the fire alarm even after the fire alarm resets and until the module itself is reset by key.

.2 It allows key controlled release of the same devices (separate from the fire alarm control).

.3 It signals the released or "normal" condition of the devices via a bicolor LED.

.10 Standard of acceptance:

	Specified	Acceptable Alternates
.1		
.2	Securitron	Sargent
.3	BPS	3500

.16 Key Switches:

.1 Mortise Keyswitch - MKA Series.

.2 Standard with 12 or 24 VDC bi-color LED

.3 Backing bracket permits integration with any 32mm or 28mm mortise cylinder (Not Included)

.4 Additional switch position on backing bracket allows another switch to be activated by turning the key in the opposite direction 5 Amp rated plunger switch UL Listed.

.17 Door Status Switch:

.1 Monitors door position remotely.

.2 SPDT concealed switch (3 wire).

.3 Contacts rated .25 Amp @24 VDC, requires 25mm diameter hole.

.4 Standard of acceptance:

	Specified	Acceptable Alternates
.1		
.2	Sargent	Securitron
.3	3287	DPS W/M

2.3 FASTENINGS

.1 Use only fasteners provided by manufacturer. Failure to comply may void warranties and applicable licensed labels.

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

.3 Exposed fastening devices to match finish of hardware.

.4 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.

.5 Use fasteners compatible with material through which they pass.

2.4 FINISHES

	Description	Material	BMHA
.2	Exterior Hinges	Stainless Steel Metal, Satin	630
.3	Interior Hinges	Satin Chromium Plated	626
.4	Locks	Stainless Steel Metal, Satin	630
.5	Exit Devices	Satin Chromium Plated	626
.6	Closers	Aluminum Powder Coated	689
.7	Flatware	Stainless Steel Metal, Satin	630
.8	All other items	Satin Chromium Plated	626

2.5 KEYING

.1 All locks to be masterkeyed to a new factory registered masterkey system. All locks to be masterkeyed as per the owners instructions.

.2 Medeco Cylinders are to be supplied and masterkeyed by Maritime Safe and Lock. Cylinders to be master keyed as directed by the owner then shipped to the distributer to be shipped to site with the locks.

.3 All locks and cylinders to be visually keyed.

.4 Consult with the Architect/Engineer and the owner and secure written approval of the complete keying layout prior to placing lock order with the factory.

.5 Grand masterkeys and masterkeys shall be sent directly to the owner by registered mail, return receipt if requested.

Supply:

1.	Grand Masterkeys	3
2.	Masterkeys	3 per group
3.	Change Keys/Lock	4
4.	Construction Masterkeys	10

2.6 KEY CONTROL

.1 Provide a key control system, including envelopes, labels with self-locking clips, receipt forms, 3-way visible card index, temporary markers and permanent markers and standard metal cabinet. Allow for 150% of the number of locks required on the project.

.2 Provide complete cross index system set up by the Hardware Supplier and place keys on markers and hooks in the key cabinet as determined by the final key schedule.

.3 Install and give instruction to owner on how the system is to be used.

.4 Provide hinged-panel type cabinet for wall mounting.

.5 Standard of acceptance: RWC-75-S.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

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

.3 Furnish manufacturers' instructions for proper installation of each hardware component.

.4 Wiring Diagrams: Provide any special information, voltage requirements and wiring diagrams to other trades requiring such information.

3.2 INSTALLATION

.1 Install door hardware in accordance with manufacturer's instructions, using special tools and jigs. Fit accurately and apply securely. Ensure that hardware is installed correctly. Issue instructions if required to Sections concerned.

.2 Install hardware to standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door Manufacturers' Association.

.3 Installation is to be done by a qualified tradesman, if technical assistance is required contact the hardware supplier.

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

.5 Install key control cabinet.

.6 Use only manufacturer's supplied fasteners. Failure to comply may void manufacturer's warranties and applicable licensed labels. Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

.7 Remove construction cores and locks when directed by Contractor; install permanent cores and check operation of locks.

.8 Hardware should not be installed until all finishing is complete.

.9 All hardware to be installed level plumb and true.

.10 All operating parts to work freely and smoothly.

.11 Exterior thresholds to be set in exterior sealants.

.12 Install Power Operators as per manufacturer's instructions and by a qualified installer.

.13 Access control to be installed by a certified installer.

.14 High voltage wiring by Division 26. Low voltage wiring by access control supplier.

3.3 ADJUSTING

.1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.

.2 Lubricate hardware, operating equipment and other moving parts.

.3 Adjust door hardware to provide tight fit at contact points with frames.

.4 All defective or damaged hardware will have to be repaired or replaced at the contractors expense.

3.4 CLEANING

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacture's instructions.

.3 Remove protective material from hardware items where present.

.4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.5 DEMONSTRATION

.1 Keying System Setup and Cabinet:

.1 Set up key control system with file key tags, duplicate key tags, numerical index, alphabetical index and key change index, label shields, control book and key receipt cards.

.2 Place file keys and duplicate keys in key cabinet on their respective hooks.

.3 Lock key cabinet and turn over key to Owner's Representative.

.2 Maintenance Staff Briefing:

.1 Brief maintenance staff regarding:

.2 Proper care, cleaning, and general maintenance of projects complete hardware.

.3 Description, use, handling, and storage of keys.

.4 Use, application and storage of wrenches for door closers, locksets and fire exit hardware.

.5 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

3.6 FIELD QUALITY CONTROL

.1 An inspection report will be required 6 months after substantial completion by a qualified Architectural Hardware Consultant to note any deficiencies. The inspection should include checking each lock against the key schedule to make sure the correct locks and cylinders are on the proper doors.

3.7 PROTECTION

.1 Protection must be given to all products and finishes until such time as the owner accepts the project.

3.8 CERTIFICATION

.1 After installation, Hardware Supplier is to have a regular member of the Architectural Hardware Consultants'' (AHC) Association inspect and certify in writing that all items and their installations are in accordance with specified requirements.

3.9 HARDWARE SCHEDULE

Heading #1

1 Single door D123

900 x 2100 x 45 - Alum DR x Alum FR

1	Continuous Hinge	Pemko CFM83SLFHD1	C
1	Exit Only, No Trim	Sargent 8510	US32D
1	Surface Closer	Sargent 421 PCTB (PUSH SIDE)	EN
1	Cover Plate	Sargent 1431J	EN
1	O/H Stop - Concealed	Rixson 1-336 (839mm - 965mm)	630
1	Threshold	Pemko 252X3AFG x Width	AFG
1	Door Bottom Sweep	Pemko 3452CNB x Width	C
1	Weatherstripping	Supplied by Aluminum Door Supplier	

Heading #2

1 Pair of doors D117A

900, 900 x 2100 x 45 - Alum DR x Alum FR

2	Continuous Hinge	Pemko CFM83SLFHD1	C
2	Flush Bolts	Rockwood 555	US26D
1	Dust Proof Strike	Rockwood 570	US26D
1	Mortise Cyl. (A/R Cam)	Sargent 41 13-0513	US26D
1	Heavy Duty Deadlatch	Adams Rite 4900-45-101 x Thickness & Handing	628
1	Paddle Operator	Adams Rite 4590-01-00 x Thickness & Handing	628
2	Offset Door Pull, CTC 18"	Rockwood BF159 x Type 1 HD Mounting	US32D
2	Surface Closer	Sargent 421 PCTB (PUSH SIDE)	EN
2	Cover Plate	Sargent 1431J	EN
2	O/H Holder - Concealed	Rixson 1-326 (839mm - 965mm)	630

Heading #3

1 Single door D103
1 Single door D104
1 Single door D124
1 Single door D126
1 Single door D129
1 Single door D130
1 Single door D321
1 Single door D322
1 Single door D326
1 Single door D334

900 x 2100 x 45 - SCW DR x PSF FR

30	Standard Hinge	McKinney TA2714 114 x 101	US26D
10	Office Lockset{s}	Sargent 28-10G05 LL	US26D
10	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #4

1 Pair of doors D329

900, 900 x 2100 x 45 - SCW DR x PSF FR

6	Standard Hinge	McKinney TA2714 114 x 101	US26D
2	Flush Bolts	Rockwood 555	US26D
1	Dust Proof Strike	Rockwood 570	US26D
1	Astragal, With S Insert	Pemko 355CS x Height	C
1	Office Lockset{s}	Sargent 8205 LNL x Lip Strike (82-0229)	US26D
2	Surface Closer	Sargent 421 CTB (PULL SIDE)	EN
2	Floor Door Stop	Rockwood 440 (HD Low Dome)	US26D

Heading #5

1 Single door D133
1 Single door D143A
1 Single door D143B
1 Single door D327
1 Single door D328

900 x 2100 x 45 - SCW DR x PSF FR

15	Heavy Weight Bearing	McKinney T4A3786 114mm x 114mm	US26D
5	Mortise Cylinder	Medeco Mortise Medeco Cylinder M3 to Suite Lock	626
5	Dormitory Function Lockset	Corbin-Russwin ML2065 LWA LC	626
5	Wall Door Stop	Rockwood 406 (Convex HD)	US26D
5	By Door Manufacturer	Weatherseal, Threshold and Door Bottom	

DOORS TO HAVE STC RATING.

Heading #6

1 Single door D149A

900 x 2100 x 45 - HM DR x PSF FR

3	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Electric Strike	HES 5200 LBM-24VDC x 501-630 x 2004M	630
1	Smart Pac III	HES 2005M3	
1	Plug-in AC Transformer	HES 2002P-24	
1	Surface Closer	Sargent 421 PCTB (PUSH SIDE)	EN
1	Kick Plate	Rockwood K1050 355mm x 50mm LDW	US32D
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D
1	Door Position Switch	Securitron DPS-W-BK (Wood Doors)	
1	Wiring Harness	McKinney (CAD) 93998-QC-1500P-QC12-12 Wires W/Pins-15'0	
1	By Others	Card Reader	
1	By Others	Controller	

REQUIRES 120VAC POWER TO POWER SUPPLY LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES LOW VOLTAGE FROM POWER SUPPLY TO ELECTRIC SRIKE LOCATION.
REQUIRES LOW VOLTAGE AND COMMUNICATION WIRE TO CARD READER LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES LOW VOLTAGE AND COMMUNICATION WIRE TO DOOR POSITION SWITCH LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES CONDUIT TO BE SUPPLIED AND INSTALLED BY ELECTRICAL SUPPLIER.
REQUIRES WIRE AND WIRE PULL BY ELECTRICAL SUPPLIER.

MODE OF OPERATION:
DOOR TO BE LOCKED AT ALL TIMES. ENTRY BY AUTHORIZED CARD OR KEY.
ENTRY BY AUTHORIZED CARD WILL ACTIVATE ELECTRIC STRIKE FOR DOOR TO BE MANUALLY PUSHED OPEN. STANDARD FUNCTIONALITY FOR DOOR CONTACTS AND REQUEST TO EXIT. LOCK HAS MECHANICAL KEY OVERIDE.
FREE EXIT AT ALL TIMES.

Heading #7

1 Pair of doors D117B

900, 900 x 2100 x 45 - SCW DR x PSF FR

5	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
1	Electrified Hinge	McKinney TA2714 114mm x 101mm -QC8 Middle	US26D
2	Flush Bolts	Rockwood 555	US26D
1	Dust Proof Strike	Rockwood 570	US26D
1	Astragal, With S Insert	Pemko 355CS x Height	C
1	Sgle Cyl - Fail Secure	Sargent RX-8271-24V LNL (Fail Secure)	US26D
2	Surface Closer	Sargent 421 PCTB (PUSH SIDE)	EN
2	Kick Plate	Rockwood K1050 355mm x 25mm LDW	US32D
2	Wall Door Stop	Rockwood 406 (Convex HD)	US26D
2	Door Position Switch	Securitron DPS-W-BK (Wood Doors)	
1	Raceway Harness	McKinney (CAD) 93995-QC-C300P-QC12-12 Wires W/Pins-3'0	
1	Wiring Harness	McKinney (CAD) 93998-QC-1500P-QC12-12 Wires W/Pins-15'0	
1	Power Supply	Securitron BPS-24-1	
1	By Others	Card Reader	
1	By Others	Controller	

REQUIRES 120VAC POWER TO POWER SUPPLY LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES LOW VOLTAGE FROM POWER SUPPLY TO ELECTRIFIED LOCK LOCATION.
REQUIRES LOW VOLTAGE AND COMMUNICATION WIRE BY ELECTRICAL SUPPLIER.
REQUIRES CONDUIT TO BE SUPPLIED AND INSTALLED BY ELECTRICAL SUPPLIER.
REQUIRES WIRE AND WIRE PULL BY ELECTRICAL SUPPLIER.
REQUIRES WIRE CHASE IN THE DOOR.
REQUIRES INSTALLATION OF HARMONY LOCK BY A CERTIFIED INSTALLER.

MODE OF OPERATION:
DOOR TO BE LOCKED AT ALL TIMES. ENTRY BY AUTHORIZED CARD OR KEY.
ENTRY BY AUTHORIZED CARD WILL UNLOCK LEVER AND ALLOW LEVER TO
DEPRESS AND RETRACT LATCH. STANDARD FUNCTIONALITY FOR DOOR
CONTACTS AND REQUEST TO EXIT. LOCK HAS MECHANICAL KEY OVERIDE.
FREE EXIT AT ALL TIMES.

Heading #8

1 Elevation D132A
1 Elevation D132B
1 Elevation D132C

__x __x __- Exist DR x Exist FR

9	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
3	Electric Strike	HES 8500-24VDC-630 LBM 851M-630	630
3	Smart Pac III	HES 2005M3	
3	Plug-in AC Transformer	HES 2002P-24	
3	Wiring Harness	McKinney (CAD) 93998-QC-1500P-QC12-12 Wires W/Pins-15'0	
3	Door Position Switch	Securitron DPS-W-BK (Wood Doors)	
3	Existing	Remainder of Hardware Existing	
3	By Others	Card Reader	
3	By Others	Controller	

HINGES TO BE REPLACED. CONFIRM STANDARD OR HEAVY WEIGHT.
CONFIRM IF EXISTING LOCK IS MORTISE OR CYLINDRICAL. ELECTRIC STRIKE TO SUITE.

REQUIRES 120VAC POWER TO POWER SUPPLY LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES LOW VOLTAGE FROM POWER SUPPLY TO ELECTRIC SRIKE LOCATION.
REQUIRES LOW VOLTAGE AND COMMUNICATION WIRE TO CARD READER LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES LOW VOLTAGE AND COMMUNICATION WIRE TO DOOR POSITION SWITCH LOCATION BY ELECTRICAL SUPPLIER.
REQUIRES CONDUIT TO BE SUPPLIED AND INSTALLED BY ELECTRICAL SUPPLIER.
REQUIRES WIRE AND WIRE PULL BY ELECTRICAL SUPPLIER.

MODE OF OPERATION:
DOOR TO BE LOCKED AT ALL TIMES. ENTRY BY AUTHORIZED CARD OR KEY.
ENTRY BY AUTHORIZED CARD WILL ACTIVATE ELECTRIC STRIKE FOR DOOR TO BE MANUALLY PUSHED OPEN. STANDARD FUNCTIONALITY FOR DOOR CONTACTS AND REQUEST TO EXIT. LOCK HAS MECHANICAL KEY OVERIDE.
FREE EXIT AT ALL TIMES.

Heading #9

1 Single door D125

900 x 2100 x 45 - HM DR x PSF FR - 90 Min

3	Standard Hinge	McKinney TA2714 114 x 101	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Standard Arm	Sargent 1431 O	EN
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #10

1 Single door D141A
1 Single door D142
1 Single door D144

900 x 2100 x 45 - HM DR x PSF FR - 45 Min

9	Standard Hinge	McKinney TA2714 114 x 101	US26D
3	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
3	Standard Arm	Sargent 1431 O	EN
3	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #11

1 Single door D159

900 x 2100 x 45 - SCW DR x PSF FR

3	Standard Hinge	McKinney TA2714 114 x 101	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Standard Arm	Sargent 1431 O	EN
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #12

1 Single door D140

900 x 2100 x 45 - SCW DR x PSF FR

3	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Parallel Arm	Sargent 1431 P9	EN
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #13

1 Single door D141B
1 Single door D146
1 Single door D149B
1 Single door D157

900 x 2100 x 45 - HM DR x PSF FR - 45 Min

12	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
4	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
4	Parallel Arm	Sargent 1431 P9	EN
4	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #14

1 Single door D115

900 x 2100 x 45 - SCW DR x PSF FR

3	Standard Hinge	McKinney TA2714 114 x 101	US26D
1	Privacy Lockset{s}	Sargent 28-10U65 LL	US26D
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #15

1 Single door D128

900 x 2100 x 45 - HM DR x PSF FR - 45 Min

3	Standard Hinge	McKinney TA2714 114 x 101	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Surface Closer	Sargent 1131-RU (Standard Arm)	EN
1	Gasketing	Pemko S88 x 3 Sides	BL

Heading #16

1 Single door D105
1 Single door D335

900 x 2100 x 45 - SCW DR x PSF FR

6	Standard Hinge	McKinney TA2714 114 x 101	US26D
2	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
2	Surface Closer	Sargent 1131-RU (Standard Arm)	EN
2	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #17

1 Single door D154

900 x 2100 x 45 - HM DR x PSF FR - 45 Min

3	Standard Hinge	McKinney TA2714 114 x 101	US26D
1	Storeroom Lockset{s}	Sargent 28-10G04 LL	US26D
1	Surface Closer	Sargent 1131-RU (Standard Arm)	EN
1	Wall Door Stop	Rockwood 406 (Convex HD)	US26D

Heading #18

1 Pair of doors D158

900, 900 x 2100 x 45 - HM DR x PSF FR - 45 Min

6	Standard Hinge	McKinney TA2714 114 x 101 (NRP)	US26D
2	Flush Bolts	Rockwood 555	US26D
1	Dust Proof Strike	Rockwood 570	US26D
1	Overlapping Astragal	Pemko 357C x Height	C
1	Storeroom Lockset{s}	Sargent 8204 LNL x Lip Strike (82-0229)	US26D
2	Parallel Arm	Sargent 1431 P9	EN

Heading #19

1 Elevation Misc

__x __x __- HM DR x HM FR

5	Key Charge	Sargent (CAD) MK KEYS PER GROUP
5	Key Charge	Sargent (CAD) VISUAL KEYING - ALL CYLINDERS
2	Key Charge	Sargent (CAD) EXTRA CUT KEY/LOCK
50	Key Charge	Sargent (CAD) KEY BLANKS
1	Key Cabinet	RWC-75-S

Door Index

Opening Numbers	Heading Numbers	Opening Numbers	Heading Numbers	Opening Numbers	Heading Numbers
D103	3	D159	11		
D104	3	D321	3		
D105	16	D322	3		
D115	14	D326	3		
D117A	2	D327	5		
D117B	7	D328	5		
D123	1	D329	4		
D124	3	D334	3		
D125	9	D335	16		
D126	3	Misc	19		
D128	15				
D129	3				
D130	3				
D132A	8				
D132B	8				
D132C	8				
D133	5				
D140	12				
D141A	10				
D141B	13				
D142	10				
D143A	5				
D143B	5				
D144	10				
D146	13				
D149A	6				
D149B	13				
D154	17				
D157	13				
D158	18				

END OF SECTION

PART 1 - GENERAL

1.1 DEFINITIONS

.1 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly.

.2 Waste Audit (WA): detailed inventory of materials in building. Indicates quantities of reuse, recycling and landfill.
.1 Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project.
.2 Indicates quantities of reuse, recycling and landfill.

.3 Waste Management Coordinator (WMC): contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.

.4 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. WRW is based on information acquired from WA.

1.2 SUBMITTALS

.1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Shop drawings.
.1 Submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning, where required by authorities having jurisdiction.
.2 Submit drawings stamped and signed by qualified professional engineer registered or licensed in New Brunswick,Canada.

1.2 SUBMITTALS (Cont'd)

.3 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.

1.3 QUALITY ASSURANCE

.1 Health and Safety.
.1 Do construction occupational health and safety in accordance with Section 01 35 29 - Health and Safety Requirements.

1.4 DELIVERY, STORAGE AND HANDLING

.1 Storage and Protection.
.1 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of Departmental Representative and at no cost to the Owner.
.2 Remove and store materials to be salvaged, in manner to prevent damage.
.3 Store and protect in accordance with requirements for maximum preservation of material.
.4 Handle salvaged materials as new materials.

.2 Waste Management and Disposal.
.1 Separate for reuse and recycling and place in designated containers, in accordance with Waste Management Plan.
.2 Place materials defined as hazardous or toxic in designated containers.
.3 Label location of salvaged material's storage areas and provide barriers and security devices.
.4 Ensure emptied containers are sealed and stored safely.

PART 2 - PRODUCTS

2.1 NOT USED

.1 Not Used.

PART 3 - EXECUTION

3.1 PREPARATION

.1 Inspect site with Departmental Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.

.2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.

.3 Notify and obtain approval of utility companies before starting demolition.

3.2 REMOVAL OPERATIONS

.1 Remove items as indicated.

.2 Do not disturb items designated to remain in place.

.3 Disposal of Material.
.1 Dispose of materials not designated for salvage or reuse on site.

3.3 RESTORATION

.1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work.

3.4 CLEANING

.1 Remove debris, trim surfaces and leave work site clean, upon completion of Work.

.2 Use cleaning solutions and procedures which are not harmful to health.

END OF SECTION

PART 1 - GENERAL

1.1 Related Sections

.1 Section 01 33 00 - Submittal Procedures.

.2 Section 01 74 19 - Construction/Demolition Waste Management And Disposal.

.3 Section 01 78 00 - Closeout Submittals.

1.2 References

.1 American Society for Testing and Materials (ASTM International)
.1 ASTM D 5417-05, Standard Practice for Operation of the Vettermann Drum Tester.
.2 ASTM E 84-10, Test Method for Surface Burning Characteristics of Building Materials.
.3 ASTM E 648-09a, Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
.4 ASTM A662/A662M-03(2007), Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.

.2 Canadian General Standards Board (CGSB)
.1 CAN/CGSB-4.2 No.27.6-M91, Textile Test Methods - Flame Resistance - Methemine Tablet Test for Textile Floor Coverings.
.2 CAN/CGSB-4.2 No.77.1-94/ISO 4919:1978, Textile Test Methods - Carpets - Determination of Tuft Withdrawal Force.
.3 CAN/CGSB-4.129-93(R1997), Carpets for Commercial Use.

.3 Carpet and Rug Institute (CRI)
.1 CRI-104, Standard Installation of Commercial Carpet.
.2 IAQ Carpet Testing Program.

.4 National Floor Covering Association (NFCA)
.1 Floor Covering Specification Manual.

.5 Underwriters' Laboratories of Canada (ULC)
.1 CAN/ULC-S102-2005, Surface Burning Characteristics of Building Materials and Assemblies.
.2 CAN/ULC-S102.2-2005, Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials and Assemblies.

1.3 Submittals

.1 Submit control submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit verification to demonstrate compliance with CAN/ULC S102 and CAN/ULC S102.2.

.3 Submit proof that carpet has been tested and passed the Indoor Air Quality (IAQ) Carpet Testing Program requirements of the Carpet and Rug Institute (CRI) and the Canadian Carpet Institute (CCI).

.4 Submit report verifying that tuft bind meets requirements of CAN/CGSB-4.129 when tested to CAN/CGSB-4.2 No.77.1.

.5 Submit report outlining proposed dust control measures.

.6 Submit carpet schedule using same room designations indicated on drawings.

.7 Submit carpet manufacturer's installation instructions: Indicate special procedures and perimeter conditions requiring special attention.

.8 Submit certification and description of carpet recycling process.

1.4 Product Data

.1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit product data sheet for each carpet, adhesive, carpet protection and subfloor patching compound.

.3 Submit WHMIS MSDS - Material Safety Data Sheets acceptable to Labour Canada and Health Canada for carpet adhesive and seam adhesive. Indicate VOC content.

.4 Submit data on specified products, describing physical and performance characteristics, sizes, patterns, colours, and methods of installation.

1.5 Shop Drawings

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

.2 Indicate nap direction, open edges, special patterns, and other details required by Departmental Representative to clarify work.

.3 Submit drawings showing columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required as well as direction of carpet pile and pattern, location of edge moldings and edge bindings to Departmental Representative for review prior to installation of carpet.

1.6 Samples

.1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit duplicate 500 x 500 mm pieces of each type carpet specified.

1.7 Closeout Submittals

.1 Submit operation and maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

.2 Submit maintenance data: Include maintenance procedures, recommendations for maintenance materials and equipment, and suggested schedule for cleaning.

.3 Schedule of carpet reclamation activities indicating following:
.1 Detailed sequence of removal work.
.2 Inventory of items to be removed and reclaimed.
.3 Proposed packing and transportation measures.

.4 Reclamation agencies' records indicating receipt and disposition of use carpet.

1.8 Qualifications

.1 Installer Qualifications:
.1 Flooring contractor requirements.
.1 Specialty contractor normally engaged in this type of work, with prior experience in installation of these types of materials.

1.8 Qualifications (Cont'd)

.1 (Cont'd)

.1 (Cont'd)

.2 Be responsible for proper product installation, including floor testing and preparation as specified and in accordance with carpet manufacturers written instructions.

1.9 Regulatory Requirements

.1 Indoor Air Quality: compliance with CRI/CCI Green Label Indoor Air Quality Program, CRI/CCI-IAQ requirements for maximum total volatile chemicals released into air. Label each carpet product with CRI/CCI-IAQ label.

1.10 Delivery, Storage and Handling

.1 Label packaged materials. For carpet tile products indicate nominal dimensions of tile and indicate installation direction.

.2 Store packaged materials in original containers or wrapping with manufacturer's seals and labels intact.

.3 Store carpeting and accessories in location as directed by Departmental Representative. Store carpet and adhesive at minimum temperature of 18° C and relative humidity of maximum 65% for minimum of 48 hours before installation.

.4 Prevent damage to materials during handling and storage. Keep materials under cover and free from dampness.

.5 Store materials in area of installation for minimum period of 48 hours prior to installation.

1.11 Waste Management and Disposal

.1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal, and with Waste Reduction Workplan.

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

1.11 Waste Management and Disposal (Cont'd)

.3 Collect and separate for disposal plastic, polystyrene, corrugated cardboard, packaging material in appropriate on-site for recycling in accordance with Waste Management Plan.

.4 Vacuum used carpet before removal.

.5 Maintain possession of removed used carpet.

.6 Immediately remove used carpet from site and transport to reclamation point.

1.12 Environmental Requirements

.1 Moisture: Ensure substrate is within moisture limits and alkalinity limits prescribed by manufacturer. Prepare moisture testing and provide report to Consultant.

.2 Temperature: Maintain ambient temperature of not less than 18° C from 48 hours before installation to at least 48 hours after completion of work.

.3 Relative humidity: Maintain relative humidity between 10 and 65% RH for 48 hours before, during and 48 hours after installation.

.4 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials.

.5 Ventilation:
.1 Provide continuous ventilation during and after carpet application. Run ventilation system 24 hours per day during installation; provide continuous ventilation for 7 days after completion of carpet installation.

.6 Test existing floor levelling compound for presence of asbestos contamination. Notify Departmental Representative for additional instructions where asbestos is discovered.

1.12 Environmental Requirements (Cont'd)

.7 Do not install carpet until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete.

1.13 Extra Materials

.1 Provide extra materials of carpet, carpet base, and adhesives in accordance with Section 01 78 00 - Closeout Submittals.

.2 Provide 10 m^2 of each colour, pattern and type of carpeting.

.3 Extra materials to be from same production run as installed materials.

.4 Identify each package of carpet and each container of adhesive.

.5 Deliver to Departmental Representative and store where directed by Departmental Representative.

PART 2 - PRODUCTS

2.1 Manufacturers

.1 Certified to Carpet and Rug Institute's and the Canadian Carpet Institute IAQ requirements.

2.2 Carpet

.1 Acceptable product:
.1 Carpet tile:
.1 Level Loop - Non textured.
.2 Nylon: staped, nylon 6.6.
.3 Dyeing method: stock.
.4 Face weight: 644.1 g/sqm.
.2 Carpet Tile Dimensions: 500 x 500 mm.

.2 Carpet to CAN/CGSB-4.129 and as follows.
.1 Certified for flammability to Health Canada regulations under "Hazardous Products (Carpet) Regulations", Part II of the Schedule.
.2 Maximum flame spread rating 300, maximum smoke developed classification 500, when tested to CAN/ULC-S102.2.
.3 Certified to Carpet and Rug Institute's and the Canadian Carpet Institute's IAQ requirements.

2.2 Carpet (Cont'd)

.2 (Cont'd)
.4 Performance rating: toASTM D 5252 or ASTM D 5417.

.3 Adhesive: low VOC, as per carpet manufacturers recommendation.

.4 Departmental Representative will provide colour schedule after contract award. Colourschedule will be based upon the selection of no more than 5 colours from the manufacturer's full range of colours and patterns.

2.3 Accessories

.1 Base:
.1 See Section 09 65 19 - Resilient Tile Flooring.

PART 3 - EXECUTION

3.1 Sub-Floor Treatment

.1 Concrete shall be inspected to determine special care required to make it a suitable foundation for carpet. Cracks 3 mm wide or protrusions over 0.8 mm will be filled and levelled with appropriate and compatible latex patching compound.

.2 Do not exceed manufacturer's recommendations for patch thickness.

.3 Large patch areas are to primed with a compatible primer.

.4 Concrete substrates shall be cured, clean and dry.

.5 Concrete substrates shall be free of paint, dirt, grease, oil, curing or parting agents, and other contaminates, including sealers, that may interfere with the bonding of the adhesive.

.6 Wherever a powdery or porous concrete surface is encountered, a primer compatible with the adhesive shall be used to provide a suitable surface for glue-down installation.

3.2 Preparation

.1 Prepare floor surfaces in accordance with CRI 104 Standard for Installation of Commercial Carpet.

.2 Pre-condition carpeting following manufacturer's printed instructions.

3.3 Installation

.1 Install carpeting using minimum of pieces.

.2 Install in accordance with manufacturer's printed instructions and in accordance with Carpet and Rug Institute Standard for Installation of Commercial Carpet, CRI 104.

.3 Install carpet after finishing work is completed but before demountable office partitions and telephone and electrical pedestal outlets are installed.

.4 Finish installation to present smooth wearing surface free from conspicuous seams, burring and other faults.

.5 Use material from same dye lot. Ensure colour, pattern and texture match within any one visual area.

.6 Fit neatly around architectural, mechanical, electrical and telephone outlets, and furniture fitments, around perimeter of rooms into recesses, and around projections.

.7 Extend carpet into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

.8 Install carpet smooth and free of bubbles, puckers, and other defects.

3.4 Modular Carpet

.1 Apply acrylic release type adhesive and install modular carpet in accordance with manufacturer's written instructions.

.2 Lay modular carpet with butt seams.

.3 Roll modular carpet with appropriate roller for complete contact of carpet with mill-applied adhesive to sub-floor.

3.5 Protection of Finished Work

.1 Vacuum carpets clean immediately after completion of installation. Protect traffic areas.

.2 Prohibit traffic on carpet for a period of 24 hours until adhesive is cured.

.3 Install carpet protection to satisfaction of Consultant.

END OF SECTION