**1 General**

**1.1 RELATED WORK**

 .1 Supply and installation of hardware for:

 .1 Overhead doors

 .2 Folding partitions

 .2 Installation only of hardware for:

 .1 Cabinetwork and shelves

 .2 Hollow metal doors

 .3 Aluminum doors

 .4 Wood doors

 .3 Section 16 ‑ Electrical wiring for magnetic strikes, electric releases, electric locks

**1.2 REFERENCE STANDARDS**

 .1 Standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufactures' Association.

**1.3 REQUIREMENTS OF REGULATORY AGENCIES**

 .1 Use ULC listed and labeled hardware for doors in fire separations and exit doors.

**1.4 SAMPLES**

 .1 If so requested; submit samples of each type hardware.

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

**1.5 HARDWARE LIST**

 .1 Refer to hardware list by DoorMasters of Ottawa Inc. Dated 15 March 2014.

 .2 Indicate hardware proposed, including make, model, material, function, finish and other pertinent information.

**1.6 MAINTENANCE DATA**

 .1 Provide in pdf format; maintenance data, parts list, and manufacturer's instructions for each type of door closers, locksets, door holders and fire exit hardware for incorporation into maintenance manual.

**1.7 MAINTENANCE MATERIALS**

 .1 Supply two sets of wrenches for door closers, locksets and fire exit hardware.

**1.8 DELIVERY AND STORAGE**

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

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

 .3 Maintain inventory list with hardware schedule.

**2 Products**

**2.1 HARDWARE ITEMS**

 .1 Only door closers, locksets and latchsets listed in this specification are acceptable.

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

**2.3 CABINET HARDWARE**

 .1 In coffee station: Adjustable shelf supports: to CGSB 69‑GP‑8M +Amdt‑May‑79, Type 8.

 .2 In coffee station: Magnetic catches: to CGSB 69‑GP‑8M +Amdt‑May‑79, Type 8.

 .3 As indicated on drawings by Paragon Interiors.

 .4 Drawer slide to CGSB 69‑GP‑8M +Amdt‑May‑79, Type 8 one to each side of drawer. Richelieu Heavy Duty Slide 36402G16 or approved equal

 .5 Cabinet hinges: to CGSB 69‑GP‑8M +Amdt‑May‑79, Type 8, finish as indicated on schedule. Richelieu Institutional Series MB-20 arm and screw in bowl; or approved equal.

**2.4 FASTENINGS**

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

 .2 Exposed fastening devices to match finish of hardware.

 .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.

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

**3 Execution**

**3.1 INSTALLATION INSTRUCTIONS**

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

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

 .3 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 and Frame Manufacturers' Association.

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



**SYMBOLS & ABBREVIATIONS**

**FINISHES**

**BHMA CDN USA DESCRIPTION**

600 CP USP PRIMED FOR PAINT

602 C2C USC2 CADMIUM PLATED

605 C3 US3 BRIGHT BRASS CLEAR COATED

606 C4 US4 SATIN BRASS CLEAR COATED

609 C5 US5 SATIN BRASS BLACKENED CLEAR COAT

612 C10 US10 SATIN BRONZE CLEAR COATED

613 C10B US10B OXIDIZED SATIN BRONZE OIL RUBBED

625 C26 US26 BRIGHT CHROMIUM PLATED

626 C26D US26D SATIN CHROMIUM PLATED

627 C27 US27 SATIN ALUMINUM CLEAR COATED

628 C28AN US28AN SATIN ALUMINUM CLEAR ANODIZED

629 C32 US32 BRIGHT STAINLESS STEEL

630 C32D US32D SATIN STAINLESS STEEL

646 C15 US15 SATIN NICKEL PLATED CLEAR COATED

688 C4AN US4AN SATIN ALUMINUM GOLD ANODIZED

689 SBL USP28 ALUMINUM PAINT

690 DBL USP20 DARK BRONZE PAINT

710 C20DAN US20DAN SATIN ALUMINUM BRONZE ANODIZED

**HANDING**

LH LEFT HAND LHA LEFT HAND ACTIVE

RH RIGHT RHA RIGHT HAND ACTIVE

LHR LEFT HAND REVERSE LHRA LEFT HAND REVERSE ACTIVE

RHR RIGHT HAND REVERSE RHRA RIGT HAND REVERSE ACTIVE

**TERMS**

AL ALUMINUM HO HOLD OPEN

ASA ASA STRIKE MM MILLIMETERS

BB BACK TO BACK NRP NON REMOVABLE PIN

BS BACKSET PR PAIR

CC CANCELED SEC SECTION

CYL CYLINDER SGLE SINGLE

DA DOUBLE ACTING STD STANDARD

DS DEAD STOP TB THRUBOLT

EA EACH 3 HR FIRE LABELED 3 HOUR

ELEV ELEVATION 1 ½ HR FIRE LABELED 1 ½ HOUR

FHWS FLUSH HEAD WOOD SCREW 3/4 HR FIRE LABELED 3/4 HOUR

FHMS FLUSH HEAD MACHINE SCREW 161 STANDARD CYLINDER LOCK CUTOUT

HDW HARDWARE

**DOORS & FRAMES**

FS FRAME SINGLE D DOOR D SERIES HONEYCOMB CORE

FD F RAME DOUBLE H DOOR H SERIES WELDED STEEL STIFFENED

KD KNOCK DOWN E DOOR E SERIES EMBOSSED

DA DOUBLE ACTING Z DOOR Z SERIES GLUED STIFFENED

TB THERMALLY BROKEN M FLUSH FACE DOOR

DE DOUBLE EGRESS G HALF LITED DOOR

CS CONTRA SWING NL NARROW LITED DOOR

PSF PRESSED STEEL FRAME L LOUVERED DOOR

WF WOOD FRAME 2G TWO LITED DOOR

ALF ALUMINUM FRAME V VIEW LITED DOOR

CIF CHANNEL IRON FRAME TRR TEMPERATURE RISE RATED

HMD HOLLOW METAL DOOR STC SOUND TRANSMISSION

SCWD SOLID CORE WOOD DOOR 14 14 GAUGE STEEL

HCWD HOLLOW CORE WOOD DOOR 16 16 GAUGE STEEL

PLD PLASTIC LAMINATED DOOR 18 18 GAUGE STEEL

ALD ALUMINUM DOOR 20 20 GAUGE STEEL

**KEYING**

GGMK GREAT GRAND MASTER KEY SK SEPARATE KEY NO MASTER

GMK GRAND MASTER KEY CMK CONSTRUCTION MASTER KEY

MK MASTER KEY CC CONSTRUCTION CORE

KD KEYED DIFFERENT CK CUT KEYS

KA KEYED ALIKE VKC VISUAL KEY CONTROL

**SHOP PLAN**

**HEADING 1**

DOORS: S1, S6, S9, S13, 18

 EXTERIOR FROM SERVICE BAYS

 PSF x HMD 914 x 2134 x 45

15 HINGES TA2314 114 x 101 630

5 PANIC SETS 8813F x ETL 630

5 DOOR CLOSERS 351 CPS 689

5 THRESHOLDS CT46 x 914 627

5 WEATHERSTRIP W20P x 914 (HEAD) 627

10 WEATHERSTRIP W16P x 2134 (JAMBS) 627

5 SWEEPS W24S x 914 627

5 CYLINDERS 1E74 x MK 626

**HEADING 2**

DOOR: 10 SERVICE BAY 10 TO WASH BAY

 PSF x HMD 914 x 2134 x 45

3 HINGES TA2314 114 x 101 630

1 PULL 9409 630

1 PUSH PLATE K11A 127 x 508 630

1 CLOSER 351 PS 689

**HEADING 3**

DOORS: S2, S3, S4, S5, S7, S8, S11, S12, S14, S15, S16, S17

 OVERHEAD DOORS

 ALL HARDWARE BY DOOR SUPPLIER

**PARTS & OFFICE PLAN**

**HEADING 4**

DOORS: M1 EXTERIOR FROM ENTRY

 M2 ENTRY FROM SHOWROOM

 ALF x ALD (2)914 x 2134 x 45

2 CONT. HINGES 780-112HD 83” 628

2 ELECTRICCONT. HINGES 780-112HD 83” ETW4 628

2 DEAD LATCHES 4900 628

2 MORTISE CYLINDERS 1E74 x C181 x MK 628

2 THUMBTURN CYLINDERS 4066 628

2 ELECTRIC STRIKES 7100 628

2 ELECTRIC OPENERS STANLEY MAJIC FORCE 628

 (MOUNT ON RHR LEAVES)

4 PUSH BUTTONS CM77 45/2 x CM 44 (BOX) 630

2 CLOSERS 351 x 351A – TJ PLATE 689

 (MOUNT ON LHR LEAVES)

4 PUSH PULL 3012-2 X 6034-2 x # 4B/5 MTG 630

1 THRESHOLDS CT46 x 1828 (EXTERIOR DOORS ONLY) 627

2 SWEEPS W24S x 914 (EXTERIOR DOORS ONLY) 627

NOTES: 1. WEATHERSTRIPPING BY ALUMINUM DOOR SUPPLIER.

 2. LOCATION OF PUSH BUTTONS AS DESIGNATED BY ARCHITECT.

**HEADING 5**

DOOR: M3 EXTERIOR FROM STAIR 1

 PSF x HMD 914 x 2134 x 45

3 HINGES TA2314 114 x 101 x NRP 630

1 PANIC SET 8813F x ETL 630

1 CYLINDER 1E74 x MK 626

1 CLOSER 351 CPS 689

1 KICKPLATE K10A 203 x WIDTH 630

1 THRESHOLD CT46 x 914 627

1 WEATHERSTRIP W20P X 914 ( HEAD) 627

2 WEATHERSTRIP W16P x 2134 (JAMB) 627

1 SWEEP W24S x 914 627

**HEADING 6**

DOOR: M4 HALL 1 TO H.C. WASHROOM

 PSF x WD 813 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 PRIVACY LOCK 9K30L15DS3 626

1 CLOSER 1431 RUO (LPA) 689

1 KICKPLATE K10A 203 x WIDTH 630

1 FLOOR STOP S100 626

**HEADING 7**

DOOR: M5 STAIR 1 FROM HALL 1

 PSF x WD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 PANIC SET 12-8815F x ETL 630

1 CLOSER 1431 RUO (LPA) 628

1 KICKPLATE K10A 203 x WIDTH 630

1 FLOOR STOP S100 626

**HEADING 8**

DOOR: M8 HALL 1 TO STORAGE 1

 PSF x WD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 STOREROOM LOCK 9K37D15DS3 C/W CORE x MK 626

1 FLOOR STOP S100 628

**HEADING 9**

DOOR: M7 HALL 1 TO BOARDROOM

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

**HEADING 10**

DOOR: M8 HALL 1 TO GENERAL MANAGER

 PSF x WD 914 x 2134 x 45

3 HINGES TA27214 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

1 FLOOR STOP S100 626

**HEADING 11**

DOOR: M9 HALL 1 TO TRAINING

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 x C/W CORE x MK 626

1 CLOSER 1431 PS (MOUNT 90° DS) 689

1 KICKPLATE K10A 203 x WIDTH 630

**HEADING 12**

DOOR: M10 EXTERIOR FROM STAIR 2

 PSF x WD 914 x 2134 x 45

3 HINGES TA2314 114 x 101 x NRP 630

1 PANIC SET 8813F x ETL 630

1 CYLINDER 1E74 x MK 626

1 CLOSER 351 CPS 689

1 KICKPLATE K10A 203 x WIDTH 630

1 THRESHOLD CT46 x 914 627

1 WEATHERSTRIP W20P X 914 ( HEAD) 627

2 WEATHERSTRIP W16P x 2134 (JAMB) 627

1 SWEEP W24S x 914 627

**HEADING 13**

DOOR: M11 STAIR 2 FROM LUNCH ROOM

 PSF x WD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 PANIC SET 12-8815F x ETL 630

1 CLOSER 1431 RUO (LPA) 628

1 KICKPLATE K10A 203 x WIDTH 630

1 FLOOR STOP S100 626

**HEADING 14**

DOORS: M12, M13 LUNCH ROOM FROM STORAGE 2

 D/PSF x WD (2)914 x 2134 x 45

12 HINGES TA2714 114 x 101 626

2 PASSAGE SETS 9K30N15DS3 (LHR LEAVES) 626

4 FLUSH BOLTS F65 x 305 (RHR LEAVES) 626

2 DEADBOLTS 8T37K STK C/W CORE x MK 626

 (LHR LEAVES)

**HEADING 15**

DOOR: M14 HALL 2 TO LUNCH ROOM

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

1 CLOSER 1431 PS (MOUNT 90° DS) 689

1 PULL 9409 630

1 PUSHPLATE K11A 127 x 509 630

**HEADING 16**

DOOR: M15 NOT USED

**HEADING 17**

DOOR: M16 HALL 2 FROM MANIFOLD CLOSET

 D/PSF x HMD (2)1220 x 2134 x 45

6 HINGES T4A3786 114 x 114 626

1 PASSAGE SET 9K30N15DS3 (RHR LEAF) 626

2 FLUSH BOLTS F65 x 305 (LHR LEAF) 626

1 DEADLOCK 8T37KSTK C/W CORE x MK 626

1 ASTRAGAL W8S x 2134 600

**HEADING 18**

DOOR: M17 HALL 2 FROM JANITOR

 PSF x HMD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 STOREROOM LOCK 9K37D15DS3 C/W CORE x MK 626

1 CLOSER 1431 PS (MOUNT 90° DS) 689

1 KICKPLATE K10A 203 x WIDTH 630

**HEADING 19**

DOOR: M18 HALL 2 TO SERVICE BAYS

 PSF x HMD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 PASSAGE SET 9K30N15DS3 626

1 CLOSER 351UO (MOUNT PA) 689

1 KICKPLATE K10A 203 x WIDTH 630

1 WALLSTOP S121 626

**HEADING 20**

DOOR: M19 HALL TO WOMENS WASHROOM

 PSF x HMD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 PULL 9409 630

1 PUSHPLATE K10A 127 x 508 630

1 CLOSER 1431 RUO (MOUNT PA) 689

1 KICKPLATE K10A 203 x WIDTH 630

1 WALL STOP S121 626

**HEADING 21**

DOOR: M20 NOT USED

**HEADING 22**

DOOR: M21 SHOWROOM TO WOMEN’S WASHROOM

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 PULL 9409 630

1 PUSHPLATE K11A 127 x 508 630

1 CLOSER 1431 RUO (LPA) 689

1 KICKPLATE K10A 203 x WIDTH 630

1 WALL STOP S121 626

**HEADING 23**

DOOR: M22 SHOWROOM FROM STORAGE 3

 PSF x WD 914 x 2134 x 45 ¾ HR

3 HINGES TA2714 114 x 101 626

1 STOREROOM LOCK 9K37D15DS3 C/W CORE x MK 626

1 CLOSER 1431 RUO x TB (MOUNT PA) 689

**HEADING 24**

DOOR: M23 HALL 1 TO SALES OFFICE

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

1 CLOSER 1431 RUO (LPA) 689

1 FLOOR STOP S100 626

**HEADING 25**

DOOR: M24 SHOP TO FOREMAN

 PSF x HMD 914 x 2134 x 45 3 HR

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

 (C/W ¾” LATCH)

1 CLOSER 351 PS (MOUNT 90° DS) 689

1 KICKPLATE K10A 203 x WIDTH 630

**HEADING 26**

DOOR: M25 FOREMAN TO SERVICE MANAGER

 PSF x HMD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

**HEADING 27**

DOOR: M26 SHOWROOM TO SERVICE MANAGER

 PSF x WD 914 x 2134 x 45

3 HINGES TA2714 114 x 101 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

1 WALL STOP S121 626

**HEADING 28**

DOOR: M27 SHOWROOM FROM SHOP

 PSF x HMD 914 x 2134 x 45 3 HR

3 HINGES TA2714 114 x 101 626

1 PUSH BUTTON LOCK LR1021B 626

1 CYLINDER 1C7A1 x MK 626

1 CLOSER 351 PS (MOUNT 90° DS) 689

1 KICKPLATE K10A 203 x WIDTH 630

**HEADING 29**

DOORS: M28 SHOWROOM TO PARTS MANAGER

 M29 SHOWROOM TO SPARE OFFICE

 PSF x WD 914 x 2134 x 45

6 HINGES TA2714 114 x 101 626

2 OFFICE LOCKS 9K37AB15DS3 C/W CORE x MK 626

2 FLOOR STOPS S100 626

**HEADING 30**

DOOR: M30 SHOWROOM TO PARTS WAREHOUSE

 PSF x HMD 914 x 2134 x 45 3 HR

3 HINGES T4A3786 114 x 114 626

1 OFFICE LOCK 9K37AB15DS3 C/W CORE x MK 626

 (C/W ¾” LATCH)

1 CLOSER 351UO (LPA) 689

1 FLOOR STOP S100 626

1 KICKPLATE K10A 203 x WIDTH 630

**HEADING 31**

DOORS: M31 OVERHEAD DOOR

 M36 OVERHEAD DOOR

 M37 OVERHEAD DOOR

 M41 OVERHEAD DOOR

 M43 OVERHEAD DOOR

 ALL HARDWARE & OPERATORS BY DOOR SUPPLIER

**HEADING 32**

DOOR: M32 TECH PARTS FROM PARTS WAREHOUSE

 D/PSF x HMD (2)914 x 2438 x 45

8 HINGES T4A3786 114 x 114 626

2 PULLS 9409 630

2 PUSHPLATES K11A 127 x 508 630

2 CLOSERS 351 PS (MOUNT 90°DS) 689

2 KICKPLATES K10A 203 x WIDTH 630

**HEADING 33**

DOOR: M33 ROLLING FIRE SHUTTER

 ALL HARDWARE BY DOOR SUPPLIER

**HEADING 34**

DOORS: M34 TECH PARTS FROM MANIFOLD ROOM

 M35 PARTS WAREHOUSE TO TOOL GRID

 PSF x HMD 914 x 2134 x 45

6 HINGES TA2714 114 x 101 626

2 OFFICE LOCKS 9K37AB15DS3 C/W CORE x MK 626

**HEADING 35**

DOOR: M38 PARTS WAREHOUSE FROM STORAGE 4

 D/PSF x HMD (2)914 x 2134 x 45

6 HINGES TA2714 114 x 101 626

1 PASSAGE SET 9K30N15DS3 626

1 DEADBOLT 8T37KSTK C/W CORE x MK 626

2 FLUSH BOLTS F65 x 305 626

1 ASTRAGAL W8S x 2134 600

**HEADING 36**

DOORS: M39 EXTERIOR FROM PARTS WAREHOUSE

 M40 EXTERIOR FROM PARTS WAREHOUSE

 M42 EXTERIOR FROM PARTS WAREHOUSE

 PSF x HMD 914 x 2134 x 45

9 HINGES TA2714 114 x 101 x NRP 626

3 PANIC SETS 8813F x ETL 630

3 CYLINDERS 1E74 x MK 626

3 CLOSERS 351 CPS 689

3 KICKPLATES K10A 203 x WIDTH 630

3 WEATHERSTRIP W20P x 914 (HEADS) 627

6 WEATHERSTRIP W16P x 2134 (JAMBS) 627

3 THRESHOLDS CT46 x 914 627

3 SWEEPS W24S x 914 627

**UPPER LEVEL**

**HEADING 37**

DOORS: U1 STAIR 1 FROM FUTURE OFFICE

 U7 STAIR 2 FROM FUTURE OFFICE

 PSF x HMD 914 x 2134 x 45 ¾ HR

6 HINGES TA2714 114 x 101 626

2 OFFICE LOCKS 9K37AB15DS3 C/W CORE x MK 626

2 CLOSERS 1431 RUO (MOUNT PA) 689

2 WALL STOPS S121 626

**HEADING 38**

DOORS: U3 FUTURE OFFICE TO M&E ¾ HR

 U5 FUTURE OFFICE TO STORAGE 1

 U6 FUTURE OFFICE TO STORAGE 2

 PSF x HMD 914 x 2134 x 45

9 HINGES TA2714 114 x 101 626

3 STOREROOM LOCKS 9K37D15DS3 C/W CORE x MK 626

3 CLOSERS 1431 RUO (MOUNT PA) 689

**KEYING**

1. ALL LOCKSETS TO BE MASTER KEYED AS DIRECTED BY CLIENT

(PROVIDE 12 KEYS).

2. ALL LOCKS TO BE KEYED DIFFERENT OR ALIKE AS DIRECTED BY CLIENT

(PROVIDE 3 KEYS PER CYLINDER).

  **END OF SECTION**