C1020 Interior Doors (and hardware)

1.0 General

.1 Frame assemblies for interior door installations are to consist of pressed steel frames (16 gauge) fabricated to Canadian Steel Door and Frame Manufacturers Association (CSDFMA) specifications for welded steel frames. Glazing if required for safety/security within suites or offices should be incorporated within the door leaf.

.2 Interior anodized aluminum storefront framing to be non-thermally broken type with a capacity for single or sections of glazing which provides a dry unit installation.

.3 In areas of high humidity (i.e. swimming pools) thermally broken double glazed aluminum framing should be used.

.4 Existing doors and frames that are non-code compliant should be reviewed with the code authority, if considered to be reusable. Doors/hardware requiring either tools or special knowledge to open in an emergency should be replaced.

.5 In buildings of heritage merit existing doors and frame assemblies are to be retained and repaired where possible. If the overall performance of interior assemblies is compromised by the re-use of existing and/or on-code compliant heritage door, frame and hardware installations the re-use must be reviewed with the code authority prior to re-use. Replacement doors and frames should match existing doors in aesthetical appeal.

.6 Doors leafs to be industry standard size of 3.0’ x 7.0’ x 1 3/4”. If there is a requirement for moving large equipment etc. then custom/oversize doors to match the requirement will be specified. Note: larger /wider doors will require more hinges.

2.0 Door Hardware

.1 Hardware shall conform to ANSI/BHMA series for standards listed below and conform to the hardware groupings identified. Hardware groups listed are generic in description only and may need to adjusted and/or revised to suit specific building requirements or specialty hardware maybe required. (Requires prior approval)
.2 Finish – Hardware finish to be stainless steel C32D (BHMA 630) or to match existing building standard (renovations).

.3 Hardware standards:

1) Locks and latches:
   .1 Bored locks and latches: ANSI/BHMA A156.2; grade one c/w vandal guard (Parker grade one lock)
   .2 Mortise locks and latches: to be ANSI/BHMA A156.13; Corbin ML2000 series, grade 1; designed to suit function.
   .3 Levers: Corbin NSA design or to match existing.
   .4 Knobs: Not to be used unless approval is given in writing.
   .5 Roses: round, minimum of 51 mm.
   .6 Normal strikes: box type; lip projection wrapped 3mm beyond jamb.
   .7 Cylinders: Supplied and installed by the University.

2) Butts: to be ANSI/BHMA A156.1; listed for use on fire rated doors; 5 knuckle ball bearing heavy weight, steel base material with non-rising pins; (NRP) for outward swinging doors and exterior doors; sized to suit door and weight; finish to be 652 and as modified in hardware groupings. Hinges for office / classroom doors etc. to be steel based, standard weight and two knuckles.

3) Exit devices: to be ANSI/BHMA A156.3, grade 1; type and functions to suit application; Sargent 8800 series c/w ETL trim; finish 630; for a pair of door use a removable mullion or top rod only vertical rods. (e.g. Sargent 8800 series, non-fire rated or 12-8800 series fire rated).

4) Doors closers and accessories: type and function to suit application; finish to match 626 or to suit existing hardware.
   .1 Door controls (closers) size in accordance with ANSI/BHMA A156.4 table A1; overhead.
      - Norton UNI 7500 series for heavy traffic doors;
      - Norton 1604BC (with floor stop); Norton UNI 1604BC (without floor stop);
      - Norton 1601 for Physically Challenged doors;
.2 Door controls (overhead holders): to ANSI/BHMA A156.4. Overhead holders only used when closers are not required.
.3 Closer/holder release devices: to ANSI/BHMA A156.4. (Sargent Fire Guard products / 24VDC)
.4 Door coordinator to be used only when required for a pair of doors with overlapping astragal.
.5 Auxiliary locks and associated products: to be ANSI/BHMA A156.4; type and function to suit application.  
   - Deadbolts and latch bolts: grade one rating.
   - Electric strikes: HES model 1006 with LBM for mortise locksets and bored locks.
   - Cylinders: Contact University lock shop for information / requirements.
.6 Architectural door trim: to be ANSI/BHMA A156.6; stainless steel (630) with satin finish; beveled edges.  
   - Door protection plates: minimum 250mm high x 50 mm less than door width; minimum 1.27 mm thick; finish 630.
   - Push plates: minimum 75 mm wide x 300 mm high; minimum 1.27 mm thick; finish 630.
   - Push/pull units: solid bar stock through-bolt with mounting plate; pull minimum 225 mm centre; finish 630.
   - Door viewer: 180 Degree; glass lens; 626 finish.
.7 Auxiliary hardware: to ANSI'BHMA A156.16; type, size and function to suit application.
.8 Kick plates (All doors except offices); 250 mm with stainless steel, screwed to the door.
.9 Sound seals: Provide minimum STC 46, adjustable:  
   - Head and jamb: Adjustable door stop.
   - Automatic door bottom with ¼” threshold.

.4 Hardware groups:

1) Office doors:
   .1 Mortised lock lever set operated by key from the outside when the outside lever is locked by toggle. Inside lever provides free egress.
   .2 Auxiliary hardware shall include door strikes and floor mounted stops.

2) Classroom doors:
.1 Mortised lock lever set locked and unlocked by key from outside. Inside lever provides free egress.
.2 Auxiliary hardware shall include door strikes and floor mounted stops.

3) Washroom doors:
.1 Door closers, on push side of door rated for heavy traffic.
.2 Push/pull set, heavy duty “D” type pull with matching push pad.
.3 Auxiliary hardware shall include floor mounted stops, kick plates etc.

4) Corridor doors:
.1 Door closers, on push side of door rated for heavy traffic.
.2 Fire rated exit device/s required
.3 Provide Sargent “Fire Guard” hold open closers c/w smoke detector, connected to building fire alarm system, designed to release doors in the event of alarm being activated, fail safe (close) when power is interrupted.
.4 Pair of doors to have a mullion or top rod only fire rated exit devices.
.5 Auxiliary hardware shall include floor mounted stops, kick plates etc.

5) Storage rooms:
.1 Mortised lock lever set operated by key from the outside at all times, inside lever provides free egress.
.2 Door closer is required for all fire rated assemblies.
.3 Auxiliary hardware shall include door strikes and floor mounted stops.

6) Residential Suite Entry Doors:
.1 Bored lever cylindrical lockset, passage function.
.2 Bored grade one deadbolt with Alloy high security cylinder.
.3 Two knuckle, standard weight, wrought steel, ball bearing butt hinges with non-rising pins, sized to suit door thickness, frame width and height, dull chrome finish.
.4 Auxiliary hardware shall include door strikes and floor/wall mounted stops.
.5 Door closer, suitable for interior suite.
.6 Door viewer one for standard suites, two for Physically Challenge suites.

7) Residential Suite Bathroom Doors:

.1 Bored lever cylindrical lockset, privacy function.
.2 Two knuckle, standard weight, wrought steel, ball bearing butt hinges with non- rising pins, sized to suit door thickness, frame width and height, finish to 626.
.3 Auxiliary hardware shall include door strikes and floor/wall mounted stops.

8) Keying and cylinders to be supplied by University locksmith shop.