

## 1 ASSEMBLY - GENERAL

- 1.1 The work of this section includes the provision of all design, labour, materials, equipment and services required to fabricate and install interior partitions as required for a complete project. The work includes, but is not necessarily limited to, the items referenced herein:
- 1.1.1 Interior Fixed Partitions
  - 1.1.2 Interior Operable Partitions
  - 1.1.3 Interior Balustrades and Screens
  - 1.1.4 Interior Glazed Partitions
  - 1.1.5 Interior Partition Firestopping
  - 1.1.6 Other Interior Partitions
- 1.2 Reference Standards: Ontario Building Code, latest edition, errata, revisions and supplements.
- 1.2.1 National Fire Code.
  - 1.2.2 National Electrical Code.
  - 1.2.3 National Mechanical Codes.
  - 1.2.4 Specific codes and standards as indicated in the Specification.
- 1.3 Performance verification: Have field sound performance (FSTC) of typical partitions over FSTC 45 certified by an independent acoustical consultant in accordance with [ASTM E-336]. Provide test verification results for NC levels in typical classrooms and where all NC levels are NC 30 or below. Provide laboratory ratings of STC for all partition types including folding partitions. Verify all STC, FSTC and NC ratings for all partitions and folding partitions have been provided.
- 1.4 Refer to space data sheets for other general partition requirements.

## 2 ASSEMBLY DESIGN CRITERIA

- 2.1 Where an assembly is required to have a fire resistance rating, the assembly rating shall be based on tested assemblies from NRC, ULC, UL, or WH or determined using the supplement to the NBC.
- 2.2 Sound Performance: design and build interior fixed partitions between adjacent spaces to provide the Sound Transmission Class listed.
- 2.3 Acoustical control is extremely important to the Campus. Incorporate the provision of additional sound absorbing materials and products, which reflects the degree of finish, desired for the room and the type of activity contained.

- 2.4 FSTC, noted in the acoustic performance criteria charts at the end of this section, is a field of measure of Sound Transmission Class (STC), with testing conducted according to the test methods set out in ASTM E-336. In order to achieve the FSTC specified, the wall assembly chosen should have a laboratory rating of approximately 5 STC points higher than the FSTC. The achievement of FSTC is dependant upon several factors:
- 2.4.1 The integrity of the partition i.e. the higher the FSTC required, the fewer penetrations would be allowed, and the greater the degree of sealing to those penetrations that would be applied. This includes electrical, A/V, data, telecommunications, HVAC, sprinkler, water supply and drain waste piping. Partitions rated at FSTC 40 or more require slab-to-slab construction.
  - 2.4.2 The type of doors and sidelights chosen. Again, the higher the FSTC required, the more attention which is required to door seals, door types, glass thickness and frame detailing.
  - 2.4.3 The design of mechanical duct runs, i.e. transfer ducting for rooms requiring an FSTC of 40 or more shall not reduce the performance of the wall to below the FSTC requirement. Transfer ducts from rooms requiring an FSTC of 40 or more should extend from the rooms into adjacent corridor space.
  - 2.4.4 Folding partitions require full bulkheads above, with minimal penetrations and well-levelled floors to achieve the FSTC noted.
- 2.5 Incorporate other acoustical sound control and isolation measures such as:
- 2.5.1 Stagger doors across corridors wherever possible,
  - 2.5.2 Provide door seals/automatic door bottoms on acoustic rated doors.
  - 2.5.3 Offsetting building fixtures and fittings in wall assemblies.
  - 2.5.4 Caulk all around electrical outlets with acoustic sealant at the base and top of partitions.
  - 2.5.5 Provide compressible gaskets between gypsum board partitions and underside of acoustical lay-in tile ceilings.
  - 2.5.6 Provide acoustical wall treatment and tack boards in public areas and corridors.
- 2.6 All banks of lockers, bench seating areas, drinking fountains, vending machine nodes and other building elements are to be recessed in corridor areas wherever possible. Avoid doors swinging outward into corridor width by recessing door entrances.

- 2.7 Provide hard, durable, and washable partition systems in public corridors, stairwells, entrances and lobbies. Use abuse/vandal-resistant gypsum board and/or concrete block partition systems, particularly at levels from finished floor to 2200mm above finished floor.
- 2.8 Provide plastic laminate, hardwood or other durable materials in horizontal surfaces subject to use and damage (i.e. window sills or areas used for seating)
- 2.9 Provide forced entry resistant partitions in high security areas and valuable asset storage. Consider composite interior partition assemblies with multiple layers of gypsum board, 16mm plywood and expanded metal lath.
- 2.10 The use of full-height glazed partitions is encouraged to provide visibility to instructional areas, where appropriate. Provide hollow metal glazed screens and tempered glazing as per space data sheets. Incorporate detailing to maintain STC/FSTC ratings, provide non-reflective glazing (where applicable) and other design considerations.
- 2.11 Provide folding partitions which are designed for safety and easy of operation by untrained personnel.

### 3 ASSEMBLY COMPONENTS

#### 3.1 Interior Metal Stud System

##### 3.1.1 General:

3.1.1.1 Not applicable.

##### 3.1.2 Design:

3.1.2.1 Design interior stud wall systems to provide structural support for wall cladding and to meet the general guidelines of this section.

##### 3.1.3 Materials / Finishes

3.1.3.1 Non-loadbearing channel stud framing: to [ASTM C645-8], stud size as required, roll formed from 0.53mm thickness hot dipped galvanized steel sheet, for screw attachment of gypsum board and lath. Knock-out service holes at 460mm centers.

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

3.1.3.3 Loadbearing channel stud framing to [CSA S136-M84], 152mm deep, 0.91mm thickness, galvanized steel studs with 31.0mm return 152 deep, 0.91mm thick galvanized tracks flange 40mm.

- 3.1.3.4 Shaft wall studs, size as required, electro galvanized steel, for screw attachment of gypsum board and shaft wall liner panels, c/w top and bottom tracks to suit studs.
- 3.1.3.5 Metal channel stiffener: 38 x 19mm size, 1.4mm thick cold rolled steel, coated with rust inhibitive coating.
- 3.1.3.6 Acoustical sealant: to [CGSB 19-GP-21M].
- 3.1.4 **Fabrication / Installation**
- 3.1.4.1 Align partition tracks at floor and ceiling and secure at 600mm o.c. maximum.
- 3.1.4.2 Install damp proof course under stud shoe tracks of partitions on slabs on grade.
- 3.1.4.3 Place studs vertically at 400mm o.c. and not more than 50mm from abutting walls, and at each side of openings and corners. Position studs in tracks at floor and ceiling. Cross brace steel studs as required to provide rigid installation to manufacturer's instructions.
- 3.1.4.4 Erect metal studding to tolerance of 1:1000.
- 3.1.4.5 Attach studs to bottom ceiling track using screws.
- 3.1.4.6 Provide two studs extending from floor to ceiling at each side of openings wider than stud centers specified. Secure studs together, 50mm apart using column clips or other approved means of fastening placed alongside frame anchor clips.
- 3.1.4.7 Install heavy gauge single jamb studs at openings.
- 3.1.4.8 Erect track at head of door/window openings and sills of sidelight/window openings to accommodate intermediate studs. Secure track to studs at each end, in accordance with manufacturer's instructions. Install intermediate studs above and below openings in same manner and spacing as wall studs.
- 3.1.4.9 Frame openings and around built-in equipment, cabinets, access panels, on four sides. Extend framing into reveals. Check clearances with equipment suppliers.
- 3.1.4.10 Provide 40mm stud or furring channel secured between studs for attachment of fixtures behind lavatory basins, toilet and bathroom accessories, and other fixtures including grab bars and towel rails, attached to steel stud partitions.
- 3.1.4.11 Extend partitions to ceiling height except where acoustic performance requires partitions to be continuous to underside of structure.

- 3.1.4.12 Maintain clearance under beams and structural slabs to avoid transmission of structural loads to studs. Use 50mm leg ceiling tracks.
- 3.1.4.13 Install continuous insulating strips to isolate studs from uninsulated surfaces.
- 3.1.4.14 Install two continuous beads of acoustical sealant and insulating strip under studs and tracks around perimeter of partitions.
- 3.1.4.15 Make provision within steel stud and furring to accommodate control joints to occur within drywall systems at abutting structural elements, at dissimilar walls or ceilings, at changes of substrate, at expansion joints within the structure, at approximately 10m in partition and wall runs, at 15m on large unbroken ceilings/bulkhead.

## 3.2 Interior Gypsum Board

### 3.2.1 **General**

- 3.2.1.1 Do work in accordance with *[CSA A82.31-M1980]* or as required.

### 3.2.2 **Design**

- 3.2.2.1 Not applicable.

### 3.2.3 **Materials / Finishes**

- 3.2.3.1 Metal furring runners, hangers, tie wires, inserts, anchors: to *[CSA A82.30-M1980]*, galvanized.
- 3.2.3.2 Standard board: to *[CSA A82.27-M1977]* regular, and Type X, and 15.9mm thick (16mm) min., 1200 mm wide x maximum practical length, ends square cut, edges beveled.
- 3.2.3.3 Water resistant board: to *[CSA A82.27-M1977]* regular, 15.9mm thick min., 1200mm wide x maximum practical length.
- 3.2.3.4 Shaft liner panels: to *[CSA A82.27-M]*, Type X, thickness as required, 610mm wide x maximum practical length, edges double beveled.
- 3.2.3.5 Metal furring runners, hangers, tie wires, inserts, anchors: to *[CSA A82.30-M1980]* galvanized.
- 3.2.3.6 Drywall furring channels: 0.5mm galvanized steel
- 3.2.3.7 Screws: to *[CAN/CSA-A82.31-M91]*.
- 3.2.3.8 Casing beads, comer beads: commercial grade sheet steel with Z275 zinc finish to *[ASTM A 525-93]*, perforated flanges. One-piece length per location.
- 3.2.3.9 Acoustic sealant: to *[CAN/CGSB-19.21-M87]*.

- 3.2.3.10 Joint compound: to [CAN/CSA-A82.31-M91], asbestos-free.
- 3.2.3.11 Outside corner trim: extruded aluminium 19mm radius corner trim, Acceptable material (or equal): [Pittcon Industries Inc.]
- 3.2.3.12 Wall reveal trim: extruded aluminium 12mm wide reveal moulding trim, Acceptable material (or equal): [Pittcon Industries Inc.]
- 3.2.4 **Fabrication / Installation**
- 3.2.4.1 Install gypsum board in accordance with [CAN/CSA-A82.31-M31] or as required.
- 3.2.4.2 Install work level to tolerance of 1:1200.
- 3.2.4.3 Install insulating strips continuously at edges of gypsum board and casing beads abutting metal window and exterior door frames, to provide thermal break.
- 3.2.4.4 Construct control joints of preformed units or two back-to-back casing beads set in gypsum board facing and supported independently on both sides of joint.
- 3.2.4.5 Provide continuous polyethylene dust barrier behind and across control joints.
- 3.2.4.6 Locate control joints at changes in substrate construction, at approximate 10 m spacing on long corridor runs and at approximate 10m spacing on ceilings.
- 3.2.4.7 Construct expansion joints, at building expansion and construction joints.
- 3.2.4.8 Provide continuous dust barrier.
- 3.2.4.9 Rigidly secure frames to furring or framing systems.
- 3.2.4.10 Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.

### 3.3 Concrete Unit Masonry

#### 3.3.1 **General**

- 3.3.1.1 Submittals: submit the following samples in accordance with Section 01340:
  - 3.3.1.1.1 Two of each type of masonry unit specified.
  - 3.3.1.1.2 One of each type of masonry accessory specified.
  - 3.3.1.1.3 One of each type of masonry reinforcement and tie proposed for use.

3.3.1.1.4 As required for testing purposes.

3.3.2 **Design**

3.3.2.1 Design masonry walls in accordance with *[CSA A371-M94]*, Masonry Construction for Buildings.

3.3.3 **Materials / Finishes**

3.3.3.1 Mortar and grout for masonry to *[CSA A179-94]*.

3.3.3.2 Use same brands of materials and source of aggregate for entire project.

3.3.3.3 Colour: ground coloured natural aggregates or metallic oxide pigments.

3.3.3.4 Bar reinforcement: to *[CSA A37 1 -M94]* and *[CSA G30.12, Grade]*

3.3.3.5 Wire reinforcement: to *[CSA A37 I-M94]* and *[CSA G30.3-M 1983]*.

3.3.3.6 Connectors: to *[CSA A370-M94]* and *[CSA S304-M84 (R1994)]*.

3.3.3.7 Corrosion protection: to *[CSA S304-M84 (R1994)]*, galvanized.

3.3.3.8 Autocure/bubblecure concrete masonry units to *[CAN3-A165 Series - M85 (CAN3-A165.4)]*.

3.3.3.9 Acoustical concrete block units to *[CSA A165 Series-94 (CSA A165.1)]*. Purpose made with slots to provide the acoustical characteristics required.

3.3.3.10 Special fire resistant concrete block units to *[CSA A165 Series-94 (CSAA165.1)]*. Classification as modified by fire resistance requirements. Aggregate used in units and equivalent thickness of units to the Supplement to the National Building Code of Canada latest edition, Chapter 2 for fire-resistance ratings indicated.

3.3.3.11 Classification: *[H/7.5/A/M]*

3.3.3.12 Size: Metric modular

3.3.3.13 Special shapes: provide bull-nosed units for exposed corners. Provide purpose-made shapes for lintels and bond beams. Provide additional special shapes as required.

3.3.4 **Fabrication / Installation**

3.3.4.1 Do masonry work in accordance with *[CSA A371-M94]*.

3.3.4.2 Strike flush all joints concealed in walls and joints in walls to receive plaster, tile, insulation, or other applied material except paint or similar thin finish coating.

3.3.4.3 For paint or similar thin finish coating provide concave joints.

- 3.3.4.4 Cut out for electrical switches, outlet boxes, and other recessed or built-in objects.
- 3.3.4.5 Make cuts straight, clean, and free from uneven edges.
- 3.3.4.6 Build in items required to be built into masonry.
- 3.3.4.7 Brace door jambs to maintain plumb. Fill spaces between jambs and masonry with mortar.
- 3.3.4.8 Use grout to [CSA A179-94] where grout is used in lieu of solid units.
- 3.3.4.9 Install building paper below voids to be filled with concrete or grout. Keep paper 25 mm back from faces of units.
- 3.3.4.10 Leave 10 mm space below shelf angles and between top of non-load bearing walls and partitions and structural elements. Do not use wedges.
- 3.3.4.11 Built masonry to tie in with stabilizers, with provision for vertical movement.
- 3.3.4.12 Construct continuous control joints and build-in continuous expansion joints as required.
- 3.3.4.13 Do masonry mortar and grout work in accordance with [CSA A179-94].
- 3.3.4.14 Over openings, install reinforced concrete block, steel or reinforced concrete lintels.
- 3.3.4.15 Do masonry reinforcement in accordance with [CSA A370-M94], [CSA A371-M94], [CAN/CSA-A23.1-94] and [CAN3-S304-M84].
- 3.3.4.16 Tolerances in notes [Clause 5.3 of CAN3-A371-M84] apply.

#### 3.4 Hollow Metal Glazed Frames

##### 3.4.1 **General**

- 3.4.1.1 Submittals: in accordance with Section 01340 - Shop Drawings, Product Data, Samples and Mock-ups. Indicate each type frame material, core thickness, reinforcement, glazing stops, location of anchors and exposed fastenings and finishes.
- 3.4.1.2 Submittals: submit one 300 x 300mm corner sample of each type frame in accordance with Section 01340.
- 3.4.1.3 Operations & Maintenance Manuals: Provide maintenance data for cleaning, and maintenance of doors for incorporation into manual. Brief maintenance staff regarding proper care, cleaning, and general maintenance. Provide operation and maintenance data for door closers, locksets, door holders and fire exit hardware for incorporation into manual.

- 3.4.1.4 Maintenance Materials: Provide maintenance materials in accordance with Section 01731 -Maintenance Materials, Special Tools and Spare Parts.
- 3.4.2 **Design**
- 3.4.2.1 Steel fire rated frames: labeled and listed by an organization accredited by Standards Council of Canada in conformance with *[CAN4 S104M-80 revised 1985]* and *[CAN4 S105M-1985]* for ratings specified or indicated.
- 3.4.2.2 Install labeled steel fire rated frames to NFPA 80 except where specified otherwise.
- 3.4.2.3 Provide acoustic labelled frames to meet or exceed STC rating required in conformance with *[ASTM E90-83/87/90]*.
- 3.4.3 **Materials / Finishes**
- 3.4.3.1 Galvanized steel sheet: commercial quality to *[ASTM A568]*, Class 1, hot dip, galvanized to *[ASTM-A527-80]*. Coating designation known commercially as 'colourbond', 'satincoat' or 'gavanneal'.
- 3.4.3.2 Frames: Steel frames to openings 1200mm or less in unsupported width 16ga base thickness. Steel frames to openings over 1200mm unsupported width 14ga base thickness.
- 3.4.3.3 Provide other frame components in accordance with CSDFMA requirements.
- 3.4.3.4 Primer for galvanized steel sheet: *[CGSB 1-GP-181M-77+Amdt-Mar-78]*.
- 3.4.3.5 Welding: conform to *[CSA W59-84]*.
- 3.4.3.6 Wired glass: to *[CAN2-12.11-M76]*, Type 1, square wire mesh design, Style 3, 6mm thick.
- 3.4.3.7 Safety glass: to *[CAN2-12.1-M79]*, Type 2, Class B, Category 1, of thickness as required.
- 3.4.4 **Fabrication / Installation**
- 3.4.4.1 Fabricate frames as detailed, to Canadian Steel Door and Frame Manufacturers' Association, (CSDFMA) Canadian Manufacturing Specifications for Steel Doors and Frames, *[1982]*; except where specified otherwise. Reinforce door and frames to suit hardware requirements.
- 3.4.4.2 Blank, reinforce, drill and tap doors and frames for mortised hardware. Reinforce doors and frames for surface mounted hardware.
- 3.4.4.3 Shop prime cold rolled steel sheet. Apply, at factory, touch up primer to doors and frames manufactured from galvanized steel where coating has been removed during fabrication.

- 3.4.4.4 Provide fire labeled frames, tested in strict conformance with [CAN4-S104], [ASTM E-152] or [N.F.P.A. 252] and listed by a recognized agency having a factory inspection service.
- 3.4.4.5 Make provision for glazing and provide necessary glazing stops.
- 3.4.4.6 Frames: Cut miters and joints accurately and weld continuously on inside of frame profile. Grind welded corners and joints to flat plane, fill with metallic paste filler and sand to uniform smooth finish.
- 3.4.4.7 Provide anchors not more than 150mm from top and bottom of each jamb, and intermediate anchors at 660mm on centre maximum, for frames in previously placed concrete, masonry or structural steel.
- 3.4.4.8 Butt joints of mullions, transom bars, centre rails and sills and cope accurately, securely welded.
- 3.4.4.9 Make provisions for glazing and provide necessary formed channel glazing stops, minimum 16mm height. Accurately fit, butted corners and fastened to frames with counter sunk oval head sheet metal screws.
- 3.4.4.10 Set frames plumb, square, level and at correct elevation. Secure anchorages and connections to suit adjacent construction. Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.

### 3.5 Interior Folding Partitions

#### 3.5.1 **General:**

- 3.5.1.1 Submittals: Submit duplicate samples 300 x 300mm samples of partition finish for each colour selected.
- 3.5.1.2 Submit shop drawing in accordance with Section 01340 - Shop Drawings, Product Data, Samples and Mock-ups. Indicate installation requirements including dimensions, head and jamb conditions, track layout, stacking arrangement, switching, hardware, finish and colour, operating mechanism, electrical requirements and location.
- 3.5.1.3 Testing/inspection: Submit test data indicating compliance with design criteria regarding sound transmission and fire hazard classification.
- 3.5.1.4 Operations & Maintenance Manuals: Provide operation and maintenance data for folding partitions, hardware and electrical operators for incorporation into manual specified in Section 01730 - Operation and Maintenance Manual.

#### 3.5.2 **Design**

- 3.5.2.1 Design and fabricate folding partitions with minimum STC required, tested to [ASTM E90]. [Also refer to FSTC ratings chart in this section].
- 3.5.2.2 Use vinyl fabric for covering with maximum flame spread 10, fuel contributed 10, smoke developed 30, when tested to [CAN4-S102].
- 3.5.2.3 Provide acoustical partitioning bulkhead above folding partition to maintain FSTC ratings between adjacent rooms.

3.5.3 **Materials / Finishes**

- 3.5.3.1 Acceptable material: [Modernfold Acousti-Seal 900 Series, Model 933 continuous hinged manual steel panels, STC rating 49, or Moderco Classic 7500, Class G, STC 48-52].
- 3.5.3.2 Panel finish: Class A, acoustical. Vinyl wall covering.
- 3.5.3.3 Track: manufacturer's standard cold rolled steel channel housing designed to support partitions. Equip track with brackets for hanger attachment.
- 3.5.3.4 Provide switching of manufacturer's standard curved track system.
- 3.5.3.5 Trolley: steel wheels with ball bearings, equipped with thrust bearing and steel pendant bolt at each wheel assembly for height adjustment.

3.5.4 **Fabrication / Installation**

- 3.5.4.1 Equip partition with manufacturer's standard hardware. Hardware finish selected from manufacturer's standard finishes.
- 3.5.4.2 Install keyed latch to accept master keyed cylinder.
- 3.5.4.3 Provide operable automatic sound seals to manufacturer's standard.
- 3.5.4.4 Use head and floor retractable compression type floor and head seals.
- 3.5.4.5 Design retractable seals to secure panel in position.
- 3.5.4.6 Use manufacturer's standard astragal inserts for jamb and panel joint seal.
- 3.5.4.7 Provide manufacturer's standard closure panel, with lever operator.
- 3.5.4.8 Install as per manufacturer's printed instructions.

3.6 Acoustical Insulation

3.6.1 **General:**

- 3.6.1.1 Not applicable.

3.6.2 **Design**

- 3.6.2.1 Provide insulation as required to achieve designed STC value for wall assembly.

3.6.3 **Materials / Finishes**

3.6.3.1 Batt Insulation: Glass fibre sound deadening insulation: density of 18.4kg/m<sup>3</sup>, R.S.I. 0.5/25mm thickness, friction fit for steel stud application to [CSA A101-M1983].

3.6.4 **Fabrication / Installation**

3.6.4.1 Install insulation to maintain continuity of acoustic protection to building elements and spaces. Do not compress batt insulation to fit into spaces.

3.6.4.2 Fit insulation tight around electrical boxes, plumbing and heating pipes and ducts, around exterior doors and windows and other protrusions.

3.6.4.3 Keep insulation minimum 75 mm from heat emitting devices such as recessed light fixtures.

3.6.4.4 Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from chipped or broken edges. Use largest possible dimensions to reduce number of joints.

3.6.4.5 Offset both vertical and horizontal joints in multiple layer applications.

3.7 Firestopping and Smoke Seals

3.7.1 **General**

3.7.1.1 Submittals: Submit shop drawings to Owner for record purposes only.

3.7.2 **Design**

3.7.2.1 Use only ULC, UL, WH, and NRC/IRC certified systems. Use tested assemblies or as determined by standard calculation method.

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

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

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

3.7.3 **Materials / Finishes**

3.7.3.1 Wall construction fire stopping and smoke seal systems: certified by ULC, UL, VM and NRC/IRC in accordance with [CAN4-S 1 15].

3.7.3.2 Asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of [CAN4-S 115] and not to exceed opening sizes for which they are intended

3.7.3.3 Firestop system rating: to match adjacent assembly.

3.7.3.4 Service penetration assemblies and components: certified by ULC, UL, VM and NRC/IRC in accordance with [CAN4-S115].

### 3.7.4 **Fabrication / Installation**

3.7.4.1 Wall construction firestopping and smoke seal at:

3.7.4.1.1 Penetrations through fire resistance rated masonry, concrete, and gypsum board partitions and walls.

3.7.4.1.2 Top of fire-resistance rated masonry and gypsum board partitions.

3.7.4.1.3 Intersection of fire-resistance rated masonry and gypsum board partitions.

3.7.4.1.4 Control and sway joints in fire-resistance rated masonry and gypsum board partitions and walls.

3.7.4.1.5 Openings and sleeves installed for future use through fire separations.

3.7.4.1.6 Around mechanical and electrical assemblies penetrating fire separations.

3.7.4.2 Rigid ducts: greater than 129 cm<sup>2</sup>: fire stopping to consist of bead of fire stopping, material between retaining angle and fire separation and between retaining angle and duct, on each side of fire separation.

3.7.4.3 Install materials in accordance with manufacturer's instructions and certification.

## 3.8 Sealants

### 3.8.1 **General**

3.8.1.1 Warranties: The [Design Builder] hereby warrants that sealant work will not leak, crack, crumble, melt, shrink, run, lose adhesion or stain adjacent surfaces for five (5) years.

### 3.8.2 **Design**

3.8.2.1 Select sealant to suit particular conditions of the job, with careful adherence to the manufacturer's instructions for application.

- 3.8.2.2 Do not use sealant to hide or make up for design or construction errors or faults.
- 3.8.2.3 Provide sealant colour to match adjacent surfaces. Provide sealant resistant to ultraviolet degradation or fading.
- 3.8.2.4 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.
- 3.8.3 **Materials / Finishes**
  - 3.8.3.1 Sealants acceptable for use on this project must be listed on CGSB Qualified Products List issued by CGSB Qualification Board for all joint sealants. Where sealants are qualified with primers, use only these primers.
  - 3.8.3.2 Between aluminium window frames and masonry: *[CAN/CGSB-19.13-M87, MC-2-25-N]*.
  - 3.8.3.3 Between door frames and walls, back of counter tops at walls, interior glazing sealant, perimeter of drinking fountain, mechanical access panels, acoustic seals: *[CGSB 19-GP-5M]*.
  - 3.8.3.4 Perimeter joints, window frames, bedding of thresholds, preformed metal siding components: *[CGSB-19-GP-14M]*.
  - 3.8.3.5 Expansion joints in masonry; horizontal joints in concrete floors: *[CAN/CGSB 19.24-M80]*.
  - 3.8.3.6 Primers: type recommended by sealant manufacturer.
- 3.8.4 **Fabrication / Installation**
  - 3.8.4.1 Apply and cure sealant in accordance with manufacturer's instructions.
  - 3.8.4.2 Install backer rod to provide joint design of 1/3 depth to width ratio.
  - 3.8.4.3 Tool sealant to a smooth concave finish.

#### **4 ACOUSTICAL PERFORMANCE CRITERIA**

- 4.1 The following chart outlines the sound control and isolation criteria for this facility.
  - 4.1.1 [Table 1 references the required degree of sound isolation for partition walls and floors between the room in question and any other occupied space, including circulation spaces.
  - 4.1.2 Table 2 provides the requirements for the Sound Transmission Loss, laboratory tested, at the frequencies noted, for wall construction on all walls forming the boundary of the project (including exterior walls)].

*[SpecNote: the following chart must be edited to suit the particular conditions and requirements of the project]*

Table 1

Room No.	Room	FSTC Required	NC Required	Remarks
	Classroom	47	30	
	Break-out Rooms between breakout rooms: between breakout rooms and classrooms:	35 47	30 30	
	Computer Lab	47	35-40	
	Fitness lab	55	35	
	AV storage	40	40	
	Resource/prep Area	47	35	
	Monitor Room	47	30	
	Testing Interview Rooms	50	30	
	Test administrators	40	35	
	Showers/Lockers	50	40	
	Storage Fitness	40	40	
	Storage	40	40	
	Interview room	47	25	
	Administration Areas	40	35	
	Photocopy Room	47	40	
	Classroom between classrooms between moveable wall	47 40	35 - 40	
	Classroom	47	30	
	Workshop	55	40	
	Library/Internet Room	47	35	
	Staff Washroom	50	40	
	Boardroom	47	30	
	Maintenance Room	n/a	n/a	
	Compressor Room	50	0	
	Meeting Room	47	35	

*End of Section*