

Nursing Area Renovations Otonabee College, Trent University

Architectural Specifications

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DIVISION 2 DEMOLITION

1. GENERAL

1. The scope of the demolition is shown on the drawings and includes:
 1. Removal of wall components including studs, door frames, etc.
 2. Wall removal required to connect new plumbing.
 3. Removal of ceilings as detailed;
 4. Removal of existing floor finishes;
 5. Removal of electrical components under Division 16.
2. The following items are to be turned over to the Owner. Should the Owner decide that the items are surplus, Contractor to dispose of items off-site:
 1. Any surplus door hardware being removed as part of the work. The salvaged hardware shall be removed from the doors and placed in a labelled plastic bin.

DIVISION 6 MILLWORK

1. GENERAL

The scope of the work of this section includes new millwork.

.1 QUALITY ASSURANCE:

- .1 Fabrication & installation of millwork shall be performed by skilled personnel working for firm specializing in millwork with minimum 5 years experience.

.2 SUBMITTALS:

- .1 Shop Drawings: Submit shop drawings for review. Shop drawings shall clearly indicate material being supplied & shall show all connections, attachments, reinforcing, anchorage & location of exposed fastenings.

2. PRODUCTS

.1 MATERIALS:

- .1 Melamine Faced Millwork Panels: decorative sheet impregnated with melamine resin thermally fused to particleboard core conforming to CAN3-0188.1-M78. Panels shall be "Melamines" by Flakeboard, "Melamines" by Formica, "Panolam" by Wanderosa, "Panval" by Uniboard. **For tendering purposes, assume that melamine selection is Huntington Maple (7929) by Wilsonart for cabinet interiors.** Verify selection prior to ordering of material. See item 2.02.B below for required core thicknesses.
- .2 Plastic Laminate Faced Millwork Panels: 19mm thick particleboard core to CAN3-0188.1-M78, or hardwood plywood core to CSA-0115-M1982, with plastic laminate facing, Type 1, General Purpose, 1.52mm (0.060" or 1/16" nominal) thick, with no orange peel ripple, conforming to CAN3-A172-M79. **Plastic laminate for the cabinet exteriors shall be**

Huntington Maple (7929) by Wilsonart. Use waterproof adhesive capable of holding materials together without failure. Seal backs in an approved manner.

- .3 Countertops: Solid surface by Corian or approved equal. Colour/pattern to be selected from standard product line.
 - .3 Finishing Hardware for Millwork: to match existing or as per 2.02 B.6.
 - .4 Rough Hardware: bolts, nuts, washers, lags, pins, screws, etc shall be hot dip galvanized to CAN/CSA-G164-M92.
 - .5 Nails: use galvanized nails for exterior work.
 - .6 Wood Trim: shall be solid stock select hardwood, size as detailed on drawings.
- .2 MILLWORK FABRICATION:
- .1 General:
 - .1 All architectural woodwork & millwork shall be manufactured, finished, supplied & installed to Custom Grade standards of Architectural Woodwork manufacturers Association of Canada (AWMAC).
 - .2 Assemble work in shop & deliver to site ready for installation as far as practical. Leave ample allowance for fitting & scribing on site. Take field dimensions & fabricate all millwork to suit these measurements. Check access clearances at site before assembling large units or components in factory for shipment to site.
 - .3 Use running members in greatest lengths obtainable to minimize number of joints required.
 - .4 Design construction methods for expansion & contraction of materials. Be responsible for methods of construction & for ensuring that materials are rigidly & securely attached & will not be loosened by work of other trades.
 - .5 Joints between horizontal fixed shelves & vertical gables shall be dado, rabbet, mortise & tenon, dovetail, tongue and groove, some form of metal mechanical interlocking device, or combination of same. Note that plain butt joints with dowel connects will not be permitted at this location. All joints shall be glued & pinned.
 - .6 Frame materials with tight joints, rigidly held in place. Use glue blocks where necessary. Take care to prevent opening up of glue lines in finished work. Conceal joints & connections wherever possible. Locate prominent joints where directed by Consultant. Intermediate joints between supports will not be permitted. Joints made on site shall be equal in quality & workmanship to joints made in factory. Accurately scribe, cope & mitre members where they meet.
 - .7 Glue, blind screw or nail all work unless otherwise specified. Glues shall be waterproof & of type suitable for work to be joined. Set surface nails & plug surface screws with wood plugs of material to match surface. Conceal nailing of tongued & grooved work.
 - .8 Machine dressed work shall be slow fed using sharp cutters & finished work shall be free from drag, feathers, slivers or roughness of any kind. Remove machine marks

by sanding. In finished work, machine sand exposed surfaces in shop & hand sand on site to even, smooth surfaces, free from scratches, ready for finishing by Section 9C.

- .9 Do not permit delivery of this work to site until area is sufficiently dry so that woodwork will not be damaged by excessive changes in moisture content. Moisture content of interior woodwork shall be no less than 4% nor more than 8%. Provide protective wrappings on millwork in transit & in storage to ensure that bruises, blemishes, etc do not occur.

2. Millwork Material Schedule:

- .1 Fabricate all Millwork as detailed.
- .2 All cabinet door panel and end gable materials for millwork shall be plastic laminate facing, self-edged on 19mm particle board core.
- .3 All other panel materials for millwork shall be particleboard core with melamine facing. All cores shall be minimum 19mm thick except drawer sides & bottoms, which shall be minimum 13mm thick. All visible surfaces on both exterior & interior side of all casework including doors, drawers, shelves, etc shall be faced. Use of UV paint on interior side of millwork will not be permitted.
- .4 All edges of melamine faced panels shall receive hot-glue-applied 1mm thick PVC abrasion resistant tape edging, colour to match melamine.
- .5 Drawers shall be fully removable. Gables for adjustable shelving shall be routed to receive flush mounted metal pilaster strips (peg inserts not acceptable). Depth of shelving units shall be as indicated on dwgs.

3. Millwork Hardware Schedule:

1. This section shall supply & install all necessary millwork hardware to provide functions/operations indicated on millwork details. This Contractor shall be responsible for establishing quantities of all hardware items by careful review of millwork details on dwgs. Generic list of hardware which may be required shall be as follows:

Pull	CBH #255-C15
Hinge	Blum Clip Top Program, concealed, full overlay, 120 ⁰ , with appropriate series mounting plate to suit application
Door Bumper	Blum #TP1950 adhesive type (2/door)
Elbow Catch	Amerock #3675
Surface Bolt	Hafele #252.02.644 or Stanley 79-3021 with #251.60.703 adjustable strike plate
Door/Drawer Lock	Nat'l Lock C8053, 5 disc tumbler cam lock (keyed alike per room)
Drawer Slide	Knape & Vogt (K&V) # 1300 ZC or Accuride C2025

Pilaster	K&V # 255 ZC
Pilaster Clip	K&V # 256 ZC
Coat rod	K&V # 770-5 CHR
Coat rod Flange	K&V #764 CHR
Coat rod Support	K&V #1195
Piano Hinge	75mm wide, full length, heavy duty, NP

3. EXECUTION

.1 INSTALLATION:

- .1 **Millwork**: Erect millwork plumb, level, square & true with adjacent assemblies or materials. Provide all blocking coming in direct contact with millwork. Fasten wood nailers, blocking, framing & strapping solidly to adjacent materials in true planes. Installed woodwork shall be smooth, even surfaces, free from knicks, scratches, bruises, blemishes, stains, mineral marks, knots, shakes & other
- .2 **Modifications to Existing Millwork (where specified)**: Carefully disassemble all millwork designated for re-use, relocation, or modifications. Repair cabinets to original structural integrity. Replace damaged melamine or plastic laminate finishes to original condition. Where melamine edgebanding is delaminated, replace entire strip. Laminate new plastic laminate finishes over existing gables and cabinet surfaces that were previously concealed. Provide filler pieces to suit site conditions. Where new millwork base is required, Division 9, shall replace entire length of vinyl baseboard to match existing.

DIVISION 7C SEALANTS AND FIRESTOP MATERIALS

1. GENERAL

- .1 The work of this section includes the fire stopping of all new penetrations through new fire separations (Base Bid), as well as the fire stopping of all existing penetrations through existing fire separations (Cash Allowance).
- .2 Apply sealants for temperature range stipulated by sealant manufacturer.
- .3 See also Sections 7D.
- .4 Warrantee sealant labour and materials against leakage, cracking, shrinkage, adhesion, etc. for a period of 3 years.

2. MATERIALS

- .1 Primers: as recommended by sealant manufacturer.
- .2 Joint Fillers: Ethafoam rods or equal.
- .3 Sealant: conforming to CSA/CASB19-9P-13M and CSA/CGSB19-GP.
 - .1 Exterior: Tremco 'Dymeric' or equal
 - .2 Interior: Dow Corning '8644' paintable silicone, colours to be selected by Consultant

- .4 Foam insulation: one component polyurethane, low modulus of expansion, Enerfoam by Abisko or equal.
- .5 Fire stop materials: The following products may be used to suit the application and requirements of the OBC. (See Appendices for catalogue cuts.) Alternate products may be used if installer obtains written approval from the building inspection department.
 - .1 For single mechanical duct penetrations, metal pipes, and cables: Hilti CP 606, flexible firestop sealant.
 - .2 For single mechanical duct penetrations, and multiple metal pipes, and cable penetrations: Hilti CP 620, flexible firestop sealant.
 - .3 For single mechanical duct penetrations, metal pipes, plastic pipes, and cables: Hilti FS-One, high performance intumescent firestop sealant.

3. EXECUTION

- .1 Remove dirt, dust, oil, grease and other matter before sealant application.
- .2 Prime surfaces to be sealed.
- .3 Ensure joint size complies with sealant range.
- .4 Apply bond breakers and joint fillers.
- .5 Apply sealant in smooth surfaced raked bead to Consultants approval.
- .6 Sealant to be applied to all joints noted or required.
- .7 Remove excess materials and staining from adjacent surfaces.
- .8 Pack all voids around windows, doors, etc. with expanding foam insulation.

Firestopping:

- .1 Partition fire ratings: 3/4 hour.
- .2 Seal all openings around pipes, ducts, conduits and structural components passing through fire rated assemblies with ULC approved fire-stop materials to prevent the passage of smoke through wall and floor assemblies.
- .3 **Do not cover firestopping materials until inspected by the building department.**

DIVISION 8A DOORS, HM FRAMES AND HARDWARE

1. GENERAL

- .1 This section includes supply of all specified HM doors, HM windows, frames and hardware.
- .2 All door hardware on this project will be supplied and installed by the Contractor. The contractor is to coordinate the required door and frame preparation as required based on the door hardware list below.

2. PRODUCTS

- .1 New steel door hardware: By ASSA ABLOY (by Contractor).
 - .1 Lock Sets: 11 Line Cylindrical lever locks (11G05) Model 28VC11G05LL26D 1-1/4 1-3/4 with interchangeable core (IC).
 - .2 Hinges: BB1168-114 x 101-626 and BB1279-114 x 101-626
 - .3 Electric Strikes: HES 1006CS Series Model 1006CS-12/24D-630
 - .4 Door Stops: 698S x 626
 - .5 Power door operators: Besam Powerswing SW2001
 - .6 Push Plates: 4 1/2" square Camden door control
 - .7 Closer: LCN 4040xP silver finish
- .2 Hollow Metal Doors: For doors up to 48" wide: 16 ga hollow steel doors, D series (Heavy Duty) by Fleming, or equivalent. Provide insulated doors for all exterior wall installations.
- .3 Pressed Steel Frames and Screens: 16 ga welded, galvanized steel frames. Prepare frames to receive required hardware. Knock-down frames may be used in non-firerated partitions, if approved by consultant. Fire-rated where specified.
- .4 Glass: Tempered fire-rated glass.
- .5 Wood Doors: 1 3/4" commercial grade solid core, stainable maple wood veneer, with matching edges, factory applied sealant on wood edges, by Baillargeon Extreme (Heavy Duty 8500-ME) or approved equal. The doors shall be ordered prepared for the specified hardware.
- .6 Wood Frames: Wood frames and trim for expanded interior windows shall match the existing wood frames in material and quality of construction. Provide shop drawings for new wood frames for review and approval.

3. EXECUTION

- .1 Install new doors, frames and hardware. Adjust all hardware for proper functioning. Doors and frames to be installed plumb and adjusted for smooth operation free from binding, scraping, sticking etc. Provide miscellaneous wood trim as required to finish all openings.
- .2 Re-install existing door hardware into new doors as indicated, including hinges.
- .3 Remove and dispose of existing doors, frames, hardware, glazing etc. not designated for re-use or to be returned to owner. Patch and make good all surfaces.
- .4 Turn over existing hardware not designated for re-use to Owner. Re-install existing hardware where designated. Adjust, lubricate and supply new screws and appurtenances as required.
- .5 Review manufacturer's shop drawings and confirm all site dimensions and type of anchors required for the installation of all new doorframes.
- .6 Cut and patch openings as required to install doors, frames, hardware and concealed wiring and conduit.
- .7 Caulk door frames inside and out. Use expanding polyurethane foam to fill voids for the installation of exterior pressed steel frames.

DIVISION 9A METAL STUDS, FURRING, AND GYPSUM BOARD

1. GENERAL

- .1 Supply and install of metal studs, furring and gypsum board (drywall), as detailed, specified and as required for a complete job.

2. PRODUCTS

- .1 Metal studs: bottom and top tracks, metal studs (3 1/2" except as otherwise noted, 25ga.) by Canadian Gypsum Company, Westeel.
- .2 Furring: Size as required or detailed.
- .3 Resilient furring channels: from 0.024" galvanized steel conforming to ULC design data.
- .4 Batt Insulation: Mineral fibre batts. Thickness as per stud dimension.
- .5 Gypsum Board: Square edge, 48" wide, 5/8" Type X Fire Code gypsum board panels by Canadian Gypsum Co., or equal.
- .6 Fastenings and Adhesive:
 - .1 Screws: to CSA A82.31-M1980 length to OBC and manufacturer's requirements
 - .2 Laminating compound: to CSA A82.31-M1980
 - .3 Joint Compound: to CSA A82.31 by CGC or Westroc
 - .4 Setting type joint compound: Sheetrock 90 or Durabond 90.
 - .5 Tape: as recommended by Gypsum Board manufacturer.
- .7 Corner beads, stops - fill type perforated flanges, one piece lengths per location, "J" mouldings not acceptable.

3. EXECUTION

- .1 Steel studs:
 - .1 Install top and bottom tracks and studs at 16" o.c.
 - .2 Secure to floor walls and ceilings/decks using screws to wood and metal, Hilti to concrete floors.
 - .3 All studs to extend to underside of roof deck. GWB to underside of deck at fire separations, 6" above ceiling at partition walls.
 - .4 Secure studs to track using method recommended by manufacturer.
 - .5 Install bracing and bridging to manufacturer's directions, including double studs at all openings.
 - .6 Allow for structural deflections when securing top track.
- .2 Resilient and Furring Channels:
 - .1 Screw install to joists or existing masonry at 16" o.c.
 - .2 Standard: to manufacturer's directions for wall and ceiling.
- .3 Filling, taping and accessories:
 - .1 Fill and tape joints, fill screw locations flush

- .2 Install corner beads and stops. Provide control joints in drywall consisting of two stops back to back at wall lengths exceeding 24'-0" in length.
- .3 Sand all surfaces for paint finish. Do not oversand.

DIVISION 9B ACOUSTIC CEILING SYSTEM

1. SCOPE

- .1 This section supply and installation of new suspended ceiling systems within rooms and spaces, and the modification/extension of existing systems.

2. PRODUCTS

- .1 Acoustic Ceiling Panels: Asbestos free, mineral fibre 5/8" panels, Performa Baroque by Certainteed or approved equal.
- .2 Exposed Main Tee: Hot dipped galvanized steel to ASTM A653/A653M, minimum Z90 coating designation, 24 mm (15/16") exposed face and 38 mm (1 1/2") high bulb tee design with double web and separate cap piece, maximum length, with reversible and integral splice. Pre-finished tee in baked enamel, standard colour.
- .3 Exposed Cross Tee: Hot dipped galvanized steel to ASTM A653/A653M, minimum Z90 coating designation, 24 mm (15/16") exposed face and 38 mm (1 1/2") high bulb tee design of same design as main tee, with override stepped ends to allow cross tee flange to sit on main tee flange providing flush exposed faces and with positive interlock to main tee. Grid module to suit acoustic panels. Finish to match main tees.
- .4 Main Tee Splices: Designed to lock lengths of main tees together so that joined lengths of tee function structurally as a single unit with tee faces at joint perfectly aligned and presenting a tight seam.
- .5 Hangers and Wires: Galvanized hangers and 2.6 mm (12 gauge) minimum galvanized steel wire.
- .6 Wall Moulding: Pre-finished galvanized steel, 19 mm x 19 mm (3/4" x 3/4") reveal with nominal 25 mm (1") exposed face, hemmed edges, finish to match tees.
- .7 Provide new components (to match existing) as required to tie existing ceiling systems into new walls.

3. EXECUTION

- .1 Install work in accordance with ASTM C636/C636M and to manufacturer's instruction.
- .2 Lay out ceiling in accordance with reflected ceiling plans. Review layout with consultant prior to installation.
- .3 Ensure work is coordinated with location of related ceiling components.
- .4 Completed suspension system to support super-imposed loads, such as lighting fixtures, diffuser grills and speakers.
- .5 Support at light fixtures and diffusers with additional ceiling suspension hangers within 150 mm of each corner, and at a maximum of 600 mm around perimeter of fixture.
- .6 Finished ceiling system to be square with adjoining walls and level with 1:1000.

- .7 Modify existing adjacent ceiling systems to tie in with new walls. Re-use salvaged components where possible. Provide new components to match as required.
- .8 Touch up scratches, abrasions, voids and other defects in painted surfaces.
- .9 Turn over spare tiles to owner in the amount of 3% of the new area covered.

DIVISION 9C FINISHED FLOORING

1. GENERAL

- .1 This section covers all floor finishes, including: resilient sheet flooring, luxury vinyl tile, cove base, vinyl base, etc., complete with surface preparation.
- .2 Provide sample of all materials to Consultant for approval.
- .3 Protect existing flooring materials from construction damage. Make good construction damaged flooring at no additional cost to owner. Pre-construction photos will be used to determine construction damage.

2. PRODUCTS

- .1 Resilient Sheet Flooring: Sheet vinyl, .080" thick, plain pattern, colour from standard colour line. By Armstrong or approved equal. With cove base. Cove base to be installed after new millwork is installed.
- .2 Luxury Vinyl Tile Flooring: Natural Creations by Armstrong (no alternatives). Colour to be selected from standard colour line to best match the adjacent existing flooring.
- .3 Vinyl Base: Johnsonite Tightlock 4", colour to be determined.

3. EXECUTION

- .1 Floor patching materials to be compatible with concrete applications and adhesives.
- .2 Vinyl base:
 - .1 Install vinyl base including premanufactured corners, using recommended adhesive application. Provide in areas affected by the Work. Ensure that sufficient adhesive is used to properly adhere the edges.
 - .2 Clean all surplus adhesive from finished adjacent and base surfaces.
- .3 Install luxury vinyl tile to manufacturer's specifications where shown on drawings and schedules.

DIVISION 9D PAINTING

1. GENERAL

- .1 Paint all paintable new and existing wall surfaces in the work area, including all existing walls and doors and frames.

2. PRODUCTS

- .1 Paint materials to be as manufactured by Dulux. Contractor to confirm Dulux codes with Trent.

- .2 Paint materials for each formula to be compatible and from same manufacturer. Sheen to be determined for each location.
- .3 Colour schedule (Paint custom codes to be provided by Owner at time of construction). Provide paint draw downs for Owner approval.
 - a) Field Colour: Bone White
 - b) Accent Walls: 1658 Lakeside Cabin applied at 60%
 - c) Window and Door Trim: Match existing grey (Phoenix Fossil).

3. EXECUTION

- .1 Inspect all surfaces to be painted and report defects (projecting nails, drywall spillage, etc.) to general contractor for remedial action.
- .2 Fill nail holes with paintable silicone before finishing.
- .3 Fill all holes and cracks, spot prime and prep to receive new finishes as scheduled.
- .4 Formulae:
New Interior Finishes:
 - .1 Formula 1: for new plaster, gypsum board walls/ceilings and unpainted concrete ceilings apply:
 - one coat primer-sealer
 - two coats latex.
 - .2 Formula 2: for new wood windows, trim, etc. apply:
 - one coat enamel undercoat
 - two coats latex
 - .3 Formula 3: for primed ferrous metal surfaces apply:
 - one coat spot priming
 - one coat enamel undercoat
 - two coats enamel
 - .4 Formula 4: for painted concrete floors apply:
 - one coat epoxy enamel primer
 - one coat epoxy enamel finish
 - .5 Formula 5: for concrete block walls apply:
 - one coat block filler
 - one coat primer-sealer
 - one coat latex
 - .6 Formula 6: Repainting:
 - one coat of spot primer
 - one finish coat if new colour is similar to existing, otherwise two coats.
 - .6 Formula 7: For new doors:
 - one coat of oil based stain (colour to be determined)
 - three coats of ployurethane (semi-gloss)

END OF SECTION