

Part 1 General

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI/NPA A208.1-[1999], Particleboard, Mat Formed Wood.
- .2 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A653/A653M-[05a], Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process.
 - .2 ASTM C36/C36M-[03], Standard Specification for Gypsum Wallboard.
 - .3 ASTM C578-[05a], Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
 - .4 ASTM C1289-[05a], Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
 - .5 ASTM D1761-[88(2000)], Standard Test Methods for Mechanical Fasteners in Wood.
 - .6 ASTM D5055-[05], Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists.
 - .7 ASTM D5456-[05a], Standard Specification for Evaluation of Structural Composite Lumber Products.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-11.3-[M87], Hardboard.
 - .2 CAN/CGSB-51.32-[M77], Sheathing, Membrane, Breather Type.
 - .3 CAN/CGSB-51.34-[M86], Vapour Barrier, Polyethylene Sheet for Use in Building Construction.
 - .4 CAN/CGSB-71.26-[M88], Adhesive for Field-Gluing Plywood to Lumber Framing for Floor Systems.
- .4 Canadian Standards Association (CSA International)
 - .1 CSA A123.2-[03], Asphalt Coated Roofing Sheets.
 - .2 CAN/CSA-A247-[M86], Insulating Fiberboard.
 - .3 CSA B111-[1974(R2003)], Wire Nails, Spikes and Staples.
 - .4 CAN/CSA-G164-[M92(R2003)], Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .5 CSA O112 Series-[M1977(R2006)], CSA Standards for Wood Adhesives.
 - .6 CSA O121-[M1978(R2003)], Douglas Fir Plywood.
 - .7 CSA O122-[06], Structural Glued-Laminated Timber.
 - .8 CSA O141-[05], Softwood Lumber.
 - .9 CSA O151-[04], Canadian Softwood Plywood.
 - .10 CSA O153-[M1980(R2003)], Poplar Plywood.
 - .11 CAN/CSA-O325.0-[92(R2003)], Construction Sheathing.
 - .12 CSA O437 Series-[93(R2006)], Standards on OSB and Waferboard.
 - .13 CAN/CSA-Z809-08 (R2013)- Sustainable forest management.

- .5 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber [2005].
- .6 South Coast Air Quality Management District (SCAQMD), California State (SCAQMD)
 - .1 SCAQMD Rule 1113-[04], Architectural Coatings.
 - .2 SCAQMD Rule 1168-[05], Adhesives and Sealants Applications.
- .7 Truss Design and Procedures for Light Metal Connected Wood Trusses, Truss Plate Institute of Canada.
- .8 Underwriters' Laboratories of Canada (ULC)
 - .1 CAN/ULC-S706-[97], Mineral Fibre Thermal Insulation for Buildings.

1.2 SUBMITTALS

- .1 Refer to Section 01 33 00 - Submittal Procedures.

1.3 QUALITY ASSURANCE

- .1 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .2 Plywood, particleboard, OSB and wood based composite panels in accordance with CSA and ANSI standards.

Part 2 Products

2.1 FRAMING AND STRUCTURAL MATERIALS

- .1 Lumber: unless specified otherwise, softwood, No. 1 or No. 2 grade, S4S, moisture content 19% (S-dry) or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 Forestry Stewardship Council (FSC) certified.
- .2 Framing and board lumber: in accordance with NBC.
- .3 Furring, blocking, nailing strips, grounds, rough bucks, fascia backing and sleepers:
 - .1 Board sizes: "Standard" or better grade.
 - .2 Dimension sizes: "Standard" light framing or better grade.
 - .3 Post and timbers sizes: "Standard" or better grade.
- .4 Pressure treated material to be Alkaline Copper Quaternary (ACQ).

2.2 PANEL MATERIALS

- .1 Indoor Environmental Quality
 - .1 SCAQMD Rule 1168, Adhesives and Sealants Applications.
- .2 Plywood, OSB and wood based composite panels: to CAN/CSA-O325.0.
- .3 Douglas fir plywood (DFP): to CSA O121, standard construction.

- .4 Canadian softwood plywood (CSP): to CSA O151, standard construction.
- .5 Insulating fiberboard sheathing: to CAN/CSA-A247.
- .6 Expanded polystyrene sheathing: to Section 07 21 13 – Board Insulation.
- .7 Gypsum sheathing: to 06 16 43 – Gypsum Sheathing.

2.3 ACCESSORIES

- .1 Exterior wall sheathing paper: to CAN/CGSB-51.32 single ply, spunbonded olefin type coated impregnated as indicated.
- .2 Polyethylene film: to Section 07 26 00 – Vapour Retarders.
- .3 Sill Gasket Air seal: closed cell polyurethane or polyethylene.
- .4 Sealants: Section 07 92 00 – Joint Sealants.
- .5 General purpose adhesive: to CSA O112.9.
- .6 Nails, spikes and staples: to CSA B111.
- .7 Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.
- .8 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.
- .9 Joist hangers: minimum 1 mm thick sheet steel, galvanized ZF001 coating designation.
- .10 Roof sheathing H-Clips: formed "H" shape, thickness to suit panel material, type approved by Contract Administrator.

2.4 FASTENER FINISHES

- .1 Galvanizing: to ASTM A123/A123M, ASTM A653, use galvanized fasteners for exterior work, interior highly humid areas and fire-retardant treated lumber.

2.5 WOOD PRESERVATIVE

- .1 Surface-applied wood preservative: clear or copper naphthenate or 5% pentachlorophenol solution, water repellent preservative.

Part 3 Execution

3.1 INSTALLATION

- .1 Comply with requirements of NBC 2010 Part 3 supplemented by following paragraphs.
- .2 Install members true to line, levels and elevations, square and plumb.
- .3 Construct continuous members from pieces of longest practical length.
- .4 Install spanning members with "crown-edge" up.

- .5 Select exposed framing for appearance. Install lumber and panel materials so that grade-marks and other defacing marks are concealed or are removed by sanding where materials are left exposed.
- .6 Install wall sheathing in accordance with manufacturer's printed instructions.
- .7 Install roof sheathing in accordance with requirements of NBC.
- .8 Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding electrical equipment mounting boards, and other work as required.
- .9 Install furring to support siding applied vertically where there is no blocking and where sheathing is not suitable for direct nailing.
 - .1 Align and plumb faces of furring and blocking to tolerance of 1:600.
- .10 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.
- .11 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using galvanized fasteners.
- .12 Use dust collectors and high quality respirator masks when cutting or sanding wood panels.

3.2 ERECTION

- .1 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
- .2 Countersink bolts where necessary to provide clearance for other work.
- .3 Use nailing disks for soft sheathing as recommended by sheathing manufacturer.

3.1 SCHEDULES

- .1 Roof sheathing:
 - .1 Plywood, DFP or CSP sheathing grade (SHG) T&G edge, 16 mm thick, unless otherwise indicated.
- .2 Exterior wall sheathing:
 - .1 Plywood, DFP or CSP sheathing grade or (SHG) grade, T&G edge, 16 mm thick, unless otherwise indicated.
 - .2 Expanded polystyrene sheathing, Type 1, RSI indicated, shiplapped edges, thickness as indicated.
 - .3 Gypsum sheathing, Section 09 21 16 – Gypsum Board Assemblies.
- .3 Subflooring:
 - .1 Plywood, DFP or CSP sheathing grade (SHG) T&G edge, 19 mm thick, unless otherwise indicated.
- .4 Electrical equipment mounting boards:
 - .1 Plywood, DFP or CSP grade, (G1S) select square edge 16 mm thick, unless otherwise indicated.
- .5 Underlay:

- .1 Plywood, DFP or CSP sheathing grade (Select), square edge 6 mm thick, unless otherwise indicated.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 ASTM International (ASTM):
 - .1 ASTM C 297, Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
 - .2 ASTM C473, Standard Test Methods for Physical Testing of Gypsum Panel Products.
 - .3 ASTM C518, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - .4 ASTM C1002, Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products offr Metal Plaster Bases to Wood Studs or Steel Studs.
 - .5 ASTM C1177, Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
 - .6 ASTM C1396, Standard Specification for Gypsum Board.
 - .7 ASTM C1280, Standard Specification for Application of Gypsum Sheathing.
 - .8 ASTM D3273, Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
 - .9 ASTM D6329, Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.
 - .10 ASTM E72, Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
 - .11 ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials.
 - .12 ASTM E96, Standard Test Methods for Water Vapor Transmission of Materials.
 - .13 ASTM E 119, Test Method for Fire Tests of Building Construction and Materials.
 - .14 ASTM E 1677, Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls.
- .2 Gypsum Association (GA): GA-253 Application of Gypsum Sheathing.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-51.34-[M86(R1988)], Vapour Barrier, Polyethylene Sheet for Use in Building Construction.
 - .2 CAN/CGSB-71.25-[M88], Adhesive, for Bonding Drywall to Wood Framing and Metal Studs.
- .4 Underwriters' Laboratories of Canada (ULC)
 - .1 CAN/ULC-S101, Fire Endurance Tests of Building Construction and Materials
 - .2 CAN/ULC-S102, Surface Burning Characteristics of Building Materials and Assemblies.
 - .3 CAN/ULC-S114, Standard Method of Test for Determination of Non-Combustibility in Building Materials
- .5 Canadian Standards Association (CSA)
 - .1 CAN/CSA-A82.27: Gypsum Board

- .2 CAN/CSA-A82.31: Gypsum Board Application

1.2 SUBMITTALS

- .1 Refer to Section 01 33 00 - Submittal Procedures.
- .2 Product Data: Manufacturer's specifications and installation instructions for each product specified.

1.3 WARRANTY

- .1 Provide products that offer twelve months of coverage against in-place exposure damage (delamination, deterioration and decay).
- .2 Manufacturer's Warranty:
 - .1 Five years against manufacturing defects.

Part 2 Products

2.1 MANUFACTURERS AND PRODUCTS

- .1 Georgia-Pacific Gypsum LLC:
 - .1 Fiberglass-Mat Faced Gypsum Sheathing: DensGlass Sheathing.
 - .2 Fiberglass-Mat Faced Gypsum Sheathing, Type X for Fire Rated Designs: DensGlass Fireguard Sheathing.

2.2 MATERIALS

- .1 Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177:
 - .1 Thickness: 1/2"
 - .2 Width: 4 feet.
 - .3 Length: Maximum practical length
 - .4 Weight: 1.9 lb/sq. ft.
 - .5 Edges: Square.
 - .6 Surfacing: Fiberglass mat on face, back, and long edges.
 - .7 Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 540 pounds per square foot, dry.
 - .8 Flexural Strength, Parallel (ASTM C473): 80 lbf, parallel.
 - .9 Humidified Deflection (ASTM C1177): Not more than 1/8 inch.
 - .10 Permeance (ASTM E96): 23 perms.
 - .11 R-Value (ASTM C518): 0.56.
 - .12 Mold Resistance (ASTM D3273): 10, in a test as manufactured.
 - .13 Microbial Resistance (ASTM D6329, GREENGUARD 3-week protocol): Will not support microbial growth.
 - .14 Acceptable Products:
 - .1 13mm (1/2") DensGlass Sheathing by Georgia-Pacific Gypsum (or approved equal).
- .2 Fire-Rated Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177, Type X:

- .1 Thickness: 5/8 inch.
- .2 Width: 4 feet.
- .3 Length: Maximum practical length
- .4 Weight: 2.5 lb/sq. ft.
- .5 Edges: Square.
- .6 Surfacing: Fiberglass mat on face, back, and long edges.
- .7 Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 654 pounds per square foot, dry.
- .8 Flexural Strength, Parallel (ASTM C1177): 100 lbf, parallel.
- .9 Humidified Deflection (ASTM C1177): Not more than 1/8 inch.
- .10 Permeance (ASTM E96): Not more than 17 perms.
- .11 R-Value (ASTM C518): 0.67.
- .12 Mold Resistance (ASTM D3273): 10, in a test as manufactured.
- .13 Microbial Resistance (ASTM D6329, GREENGUARD 3-week protocol): Will not support microbial growth.
- .14 Acceptable Products:
 - .1 16mm (5/8") DensGlass Fireguard Sheathing by Georgia-Pacific Gypsum (or approved equal).

2.3 ACCESSORIES

- .1 Screws: ASTM C1002, corrosion resistant treated.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions:
 - .1 Inspection: Verify that project conditions and substrates are acceptable, to the installer, to begin installation of work of this section.

3.2 INSTALLATION

- .1 General: In accordance with GA-253, ASTM C1280 and the manufacturer's recommendations.

3.3 PROTECTION

- .1 Protect gypsum board installations from damage and deterioration until date of Substantial Completion.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI/NPA A208.1, Particle board.
 - .2 ANSI A208.2, Medium Density Fiberboard (MDF) for Interior Applications.
 - .3 ANSI/HPVA HP-1, Standard for Hardwood and Decorative Plywood.
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
 - .1 Architectural Woodwork Quality Standards Manual, 2nd edition (AWS).
- .3 American Society for Testing and Materials (ASTM)
 - .1 ASTM E1333, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20, Adhesive, Contact, Brushable.
 - .2 CAN/CGSB-69.25/ANSI/BHMA A156.9, Cabinet Hardware.
 - .3 CAN/CGSB-69.27/ANSI/BHMA A156.11, Cabinet Locks.
 - .4 CAN/CGSB-69.32/ANSI/BHMA A156.16, Auxiliary Hardware.
 - .5 CAN/CGSB-69.34/ANSI/BHMA A156.18, Materials and Finishes.
- .5 Canadian Plywood Association (CanPly)
 - .1 The Plywood Handbook [2005].
- .6 Canadian Standards Association (CSA)
 - .1 CSA B111, Wire Nails, Spikes and Staples.
 - .2 CSA O112.4, Standards for Wood Adhesives.
 - .3 CSA O121, Douglas Fir Plywood.
 - .4 CSA O141, Softwood Lumber.
 - .5 CSA O151, Canadian Softwood Plywood.
 - .6 CSA O153, Poplar Plywood.
- .7 National Hardwood Lumber Association (NHLA)
 - .1 Rules for the Measurement and Inspection of Hardwood and Cypress.
- .8 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber.
- .9 South Coast Air Quality Management District (SCAQMD), California State (SCAQMD)
 - .1 SCAQMD Rule 1113-[04], Architectural Coatings.
 - .2 SCAQMD Rule 1168-[05], Adhesives and Sealants Applications.
- .10 Underwriters Laboratories of Canada (ULC)
 - .1 CAN4-S104-[80(R1985)], Standard Method for Fire Tests of Door Assemblies.

- .2 CAN4-S105-[85(R1992)], Standard Specification for Fire Door Frames, meeting the Performance Required by CAN4-S104.

1.2 SUBMITTALS

- .1 Shop Drawings Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .2 Indicate materials, thickness, finishes and hardware.

1.3 QUALITY ASSURANCE

- .1 Work in accordance with Grade or Grades specified of the AWS.
- .2 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .3 Wood fire rated frames and panels: listed and labelled by an organization accredited by Standards Council of Canada in conformance with CAN4-S104 and CAN4-S105 for ratings specified or indicated.
- .4 Composite wood and agrifiber products shall contain no added urea-formaldehyde resins.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, handle, store and protect materials in accordance with Section 01 61 00 - Common Product Requirements
 - .1 Protect materials against dampness during and after delivery.
 - .2 Store materials in ventilated areas, protected from extreme changes of temperature or humidity.

Part 2 Products

2.1 LUMBER MATERIAL

- .1 Softwood lumber: unless specified otherwise, S4S, moisture content 19 % or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 AWMAC premium grade, moisture content as specified.
- .2 Machine stress-rated lumber is acceptable for all purposes.
- .3 Hardwood lumber: moisture content 10% or less in accordance with following standards:
 - .1 National Hardwood Lumber Association (NHLA).
 - .2 AWMAC premium grade, moisture content as specified.

2.2 PANEL MATERIAL

- .1 Douglas fir plywood (DFP): to CSA O121, standard construction.
 - .1 NAUF - Urea-formaldehyde free.
- .2 Canadian softwood plywood (CSP): to CSA O151, standard construction.

- .1 NAUF - Urea-formaldehyde free.
- .3 Hardwood plywood: to ANSI/HPVA HP-1.
 - .1 NAUF - Urea-formaldehyde free.
 - .2 Species and grades as indicated.
 - .3 Walnut Veneer Plywood:
 - .1 Thickness: 1/4"
 - .2 Size: as required to suit application without joints.
 - .3 Face: Flat Sliced, Walnut, Grade A, Book Match
 - .4 Back: Rotary Cut, Grade 4
 - .5 Edge banding to match face veneer.
- .4 Veneer core plywood: hardwood with a non-telegraphing grain manufactured with exterior glue.
- .5 Poplar plywood (PP): to CSA O153, standard construction.
 - .1 NAUF - Urea-formaldehyde free.
- .6 Birch plywood: to AWMAC Natural
 - .1 NAUF - Urea-formaldehyde free.
- .7 Hardboard: to CAN/CGSB – 11.3.
 - .1 NAUF - Urea-formaldehyde free.
- .8 Medium density fibreboard (MDF): to ANSI A208.2, density 769 kg/m³.
 - .1 NAUF - Urea-formaldehyde free.
 - .2 Must meet the performance requirements of ANSI A208.2
- .9 Particleboard core: to ANSI 208.1, sanded faces, of thickness indicated.
 - .1 NAUF - Urea-formaldehyde free.
- .10 Plastic Laminate:
 - .1 Of NEMA LD-3 Grade required by AWS for its use.
- .11 Edgeband
 - .1 For wood veneer casework and panelling: Veneer of same species and cut as exposed surfaces.
 - .2 For Plastic Laminate Casework: PVC
- .12 Adhesives: Type 2, water resistant

2.3 ACCESSORIES

- .1 Nails and staples: to CSA B111; galvanized to CAN/CSA-G164 for exterior work, interior humid areas and for treated lumber; plain finish elsewhere.
- .2 Wood screws: steel plain, type and size to suit application.
- .3 Splines: wood, plastic, metal.
- .4 Adhesive: recommended by manufacturer.

- .1 Adhesives: maximum VOC limit 30g/L.

Part 3 Execution

3.1 INSTALLATION

- .1 Do finish carpentry to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
- .2 Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
- .3 Form joints to conceal shrinkage.

3.2 CONSTRUCTION

- .1 Fastening:
 - .1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
 - .2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
 - .3 Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round smooth cut hole and plug with wood plug to match material being secured.
 - .4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.
- .2 Standing and running trim
 - .1 Butt and cope internal joints of baseboards to make snug, tight, joint. Cut right angle joints of casing and base with mitred joints.
 - .2 Fit backs of baseboards and casing snugly to wall surfaces to eliminate cracks at junction of base and casing with walls.
 - .3 Make joints in baseboard, where necessary using a 45° scarf type joint.
 - .4 Install door and window trim in single lengths without splicing.
- .3 Panelling:
 - .1 Secure panelling and perimeter trim using adhesive recommended for purpose by manufacturer. Fill nail holes caused by temporary fixing with filler matching wood in colour.
- .4 Shelving:
 - .1 Install shelving on shelf brackets, where indicated.
- .5 Hardware:
 - .1 Install cabinet and miscellaneous hardware as indicated.

3.3 ADJUSTING AND TOUCH-UP

- .1 Adjust all moving and operating parts to function smoothly and correctly.
- .2 Fill and retouch all nicks, chips and scratches. Replace all un-repairable damaged items.

3.4

CLEANUP

- .1 Upon completion of installation, clean installed items of pencil and ink marks, and broom clean area of operation.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI/NPA A208.1, Particle board.
 - .2 ANSI A208.2, Medium Density Fiberboard (MDF) for Interior Applications.
 - .3 ANSI/HPVA HP-1, Standard for Hardwood and Decorative Plywood.
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
 - .1 Architectural Woodwork Quality Standards Manual, 2nd edition (AWS).
- .3 American Society for Testing and Materials (ASTM)
 - .1 ASTM E1333, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20, Adhesive, Contact, Brushable.
 - .2 CAN/CGSB-69.25/ANSI/BHMA A156.9, Cabinet Hardware.
 - .3 CAN/CGSB-69.27/ANSI/BHMA A156.11, Cabinet Locks.
 - .4 CAN/CGSB-69.32/ANSI/BHMA A156.16, Auxiliary Hardware.
 - .5 CAN/CGSB-69.34/ANSI/BHMA A156.18, Materials and Finishes.
- .5 Canadian Standards Association (CSA)
 - .1 CSA B111, Wire Nails, Spikes and Staples.
 - .2 CSA O112.4, Standards for Wood Adhesives.
 - .3 CSA O121, Douglas Fir Plywood.
 - .4 CSA O141, Softwood Lumber.
 - .5 CSA O151, Canadian Softwood Plywood.
 - .6 CSA O153, Poplar Plywood.
- .6 National Hardwood Lumber Association (NHLA)
 - .1 Rules for the Measurement and Inspection of Hardwood and Cypress.
- .7 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber.

1.2 QUALITY ASSURANCE

- .1 Work in accordance with Grade or Grades specified of the AWS.
- .2 Guarantee and Inspection Service:
 - .1 Architectural woodwork shall be manufactured and installed to the current AWMAC Architectural Woodwork Standards and shall be subject to an inspection at the factory and/or site by an appointed AWMAC Certified Inspector. Inspection costs shall be included in the tender price for this project. (Contact your local

AWMAC Chapter for details of inspection costs). Shop drawings submitted to the AWMAC Chapter office for review before work commences. Work that does not meet the AWMAC Architectural Woodwork Standards, as specified, shall be replaced, reworked and/or refinished by the architectural woodwork contractor, to the approval of AWMAC, at no additional cost to the Owner.

- .2 If the woodwork contractor is an AWMAC manufacturer member in good standing, a two (2) year AWMAC Guarantee Certificate will be issued. The AWMAC Guarantee shall cover replacing, reworking and/or refinishing deficient architectural woodwork due to faulty workmanship or defective materials supplied and installed by the woodwork contractor, which may appear during two (2) year period following the date of issuance.
 - .3 If the woodwork contractor is not an AWMAC Manufacturer member they shall provide the owner with a two (2) year maintenance bond, in lieu of the AWMAC Guarantee Certificate, to the full value of architectural woodwork contract.
- .3 Woodwork Manufacturer Qualifications:
- .1 Member in Good Standing of AWMAC.
 - .2 Minimum 5 years of production experience similar to this project, whose qualifications indicate ability to comply with requirements of this Section.
 - .3 Minimum one project in past 5 years where value of woodwork within 20 percent of cost of woodwork for this Project.

1.3 PRE-INSTALLATION MEETING

- .1 Before framing completed hold a meeting with the contractor, casework manufacturer, casework installer, and framing sub-contractor.
 - .1 Review locations of backing required for casework installation as shown on casework shop drawings.
 - .2 Review method of attachment for backing to wall system as shown on architectural drawings.

1.4 SUBMITTALS

- .1 In accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate details of construction, profiles, jointing, fastening and other related details.
Scales:
 - .1 Scales: profiles full size, details 1/2 full size.
- .3 Indicate all materials, thicknesses, finishes and hardware.
- .4 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
- .5 Submit duplicate colour samples of laminated plastic for colour selection.
- .6 Submit duplicate samples of laminated plastic joints, edging, cutouts, and postformed profiles.
- .7 Submit three sample sets of finished samples of each species and cut of wood to be used. Veneer samples minimum 304 mm x 304 mm. Each sample set of three to represent range of color and grain expected.

1.5 SHOP DRAWINGS

- .1 Submit shop drawings
- .2 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .1 Scales: profiles, details 1/2 full size.
- .3 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver materials only when the project is ready for installation and the Contractor has provided a clean storage area.
 - .1 Delivery of architectural millwork shall be made only when the area of operation is enclosed, all plaster and concrete Work is dry and the area broom clean.
 - .2 Maintain indoor temperature and humidity within the range recommended by the Architectural Woodwork Standards for the location of the project.

1.7 SCHEDULING

- .1 Coordinate fabrication, delivery, and installation with the Contractor and other applicable trades.

1.8 WASTE MANAGEMENT AND DISPOSAL

- .1 Place materials defined as hazardous or toxic waste in designated containers.
- .2 Ensure emptied containers are sealed and stored safely for disposal away for public.
- .3 Use chemical hardeners that are non-toxic, biodegradable and have zero or low VOC's.
- .4 Dispose of surplus chemical and finishing materials in accordance with Federal, Provincial and Municipal regulations.

Part 2 Products

2.1 MATERIALS

- .1 Softwood lumber: unless specified otherwise, S4S, moisture content 19 % or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 AWMAC premium grade, moisture content as specified.
- .2 Machine stress-rated lumber is acceptable for all purposes.
- .3 Hardwood lumber: moisture content 10% or less in accordance with following standards:
 - .1 National Hardwood Lumber Association (NHLA).

- .2 AWMAC premium grade, moisture content as specified.
- .4 Douglas fir plywood (DFP): to CSA O121, standard construction.
 - .1 NAUF - Urea-formaldehyde free.
- .5 Canadian softwood plywood (CSP): to CSA O151, standard construction.
 - .1 NAUF - Urea-formaldehyde free.
- .6 Hardwood plywood: to ANSI/HPVA HP-1.
 - .1 NAUF - Urea-formaldehyde free.
 - .2 Species and grades as indicated.
 - .3 Walnut Veneer Plywood:
 - .1 Thickness: 1/4"
 - .2 Size: as required to suit application without joints.
 - .3 Face: Flat Sliced, Walnut, Grade A, Book Match
 - .4 Back: Rotary Cut, Grade 4
 - .5 Edge banding to match face veneer.
- .7 Veneer core plywood: hardwood with a non-telegraphing grain manufactured with exterior glue.
- .8 Poplar plywood (PP): to CSA O153, standard construction.
 - .1 NAUF - Urea-formaldehyde free.
- .9 Birch plywood: to AWMAC Natural
 - .1 NAUF - Urea-formaldehyde free.
- .10 Hardboard: to CAN/CGSB – 11.3.
 - .1 NAUF - Urea-formaldehyde free.
- .11 Medium density fibreboard (MDF): to ANSI A208.2, density 769 kg/m³.
 - .1 NAUF - Urea-formaldehyde free.
 - .2 Must meet the performance requirements of ANSI A208.2
- .12 Particleboard core: to ANSI 208.1, sanded faces, of thickness indicated.
 - .1 NAUF - Urea-formaldehyde free.
- .13 Plastic Laminate:
 - .1 Of NEMA LD-3 Grade required by AWS for its use.
- .14 Edgeband
 - .1 For wood veneer casework and panelling: Veneer of same species and cut as exposed surfaces.
 - .2 For Plastic Laminate Casework: PVC
- .15 Adhesives: Type 2, water resistant
- .16 Hardware:
 - .1 Door and Drawer rolls, hinges, slides, locks, pulls, knobs shelf rest, standards, rods track shall be in accordance with CAN/CGSB-69.25-M90/ANSI/BHMA A156.9.

- .2 Unless otherwise specified: Meeting requirements of AWS for grade specified
- .3 Finish:
 - .1 Exposed hardware: Brushed Nickel
 - .2 Semi exposed hardware: Manufacturer's standard finish.
- .4 Pulls: Richelieu Contemporary Metal Handle Pull #458 - 458192195 (192mm centers)
- .5 Drawer Guides: full extension meeting requirements of AWS for type and size of drawer
- .6 Hinges: five knuckle Grade 1 hinges
- .7 Shelf Supports: Knap & Vogt KV255 and KV256 supports
- .8 Locks:
 - .1 Low Security: Richelieu #BP140301140
 - .2 High Security: Richelieu #BP140001140
 - .3 Cylinders: key to keying system as directed
 - .1 Cabinet locks to be as keyed alike in a room or as directed. Submit keying schedule for approval.
 - .2 Provide keys in duplicate for every type of lock in this Contract.
 - .3 Stamp keying code numbers on keys and cylinders.
- .9 Wall Shelving standards and brackets:
 - .1 Knap & Vogt KV85 double-slot standards, lengths as indicated with 610 mm deep KV185 brackets.
- .10 Coat Rods:
 - .1 Knap & Vogt KV660, 1 1/16" O.D. SS rod c/w KV734 and KV735 polished chrome flanges. Size rods to suit closet widths as indicated on drawings.
- .11 Coat Hooks:
 - .1 Richelieu: Contemporary Metal Hook – 1513 - NH1513021195
- .12 Door/Drawer Bumpers:
 - .1 Clear nylon bumpers, push in type.
- .13 Grommets:
 - .1 As required to match adjacent surface.
- .14 Grommets on Solid Surface Countertop:
 - .1 Richelieu 60 mm Wire Grommet for Glass and Solid Surfaces – 60801510, satin aluminum finish.
- .15 Glass Clamps for Privacy Screens:
 - .1 Richelieu Square Glass Clamp - GMGC398SC, satin chrome finish.
- .17 Nails and staples: to CSA B111.
- .18 Wood screws: steel plain, type and size to suit application.
- .19 Splines: wood.
- .20 Caulking and Sealants: Section 07 92 00 – Joint Sealants.
- .21 Glazing: provide glazing to the requirements of Section 08 80 00 – Glazing.

2.2 MANUFACTURED UNITS

- .1 Plastic Laminate Casework: Fabricate caseworks to AWMAC custom quality grade.

- .2 Construction Type: AWS construction type, Frameless
- .3 Cabinet and door interface: flush overlay
- .4 Exposed Surfaces: High Pressure Decorative Laminate (HPDL) meeting the requirements of AWS for Grade specified.
 - .1 Colour and Pattern:
 - .1 Colour 1: Formica, White 949-58
 - .2 Colour 2: Formica, Folkstone 927-58
- .5 Exposed interior surfaces: LPDL (melamine) of a color and pattern compatible with exposed surfaces.
- .6 Semi-exposed surfaces: LPDL (melamine)
- .7 Edgeband: PVC
 - .1 Edgeband at doors, drawer fronts, and false fronts: 3mm
 - .2 Edgeband at casework bodies: 0.5mm
 - .3 Colour: compatible with exposed surfaces.
- .8 Drawers:
 - .1 Sides: Particle board with melamine surfaces.
 - .2 Bottoms: MDF with melamine surfaces.
 - .3 Joinery: Meeting requirements of AWS for Grade specified.
- .9 Laminated Plastic Countertops:
 - .1 Laminate: Provide 2 colours; Colour and pattern to be determined by Contract Administrator.
 - .2 Core material: particleboard
 - .1 Wet tops: Veneer core plywood with type II adhesive.
 - .2 Back splashes: butt joint, 100 mm high.
 - .3 Front edges: PVC edge, 3mm
- .10 Wall Shelving (Closets and Storage Rooms): Fabricate shelving to AWMAC custom grade.
- .11 Furring, blocking, nailing strips, grounds and rough bucks and sleepers:
 - .1 S2S is acceptable.
 - .2 Board sizes: "Standard" or better grade.
 - .3 Dimension sizes: "Standard" light framing or better grade.

2.6 FABRICATION

- .12 Set nails and countersink screws apply wood filler to indentations, sand smooth and leave ready to receive finish.
- .13 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.
- .14 Shelving to cabinetwork to be adjustable unless otherwise noted.

- .15 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
- .16 Shop assemble Work for delivery to Site in size easily handled and to ensure passage through building openings.
- .17 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .18 Ensure adjacent parts of continuous laminate Work match in colour and pattern.
- .19 Comply with NEMA LD 3, Annex A.
- .20 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400 mm. Keep joints 600 mm from sink cutouts.
- .21 Form shaped profiles and bends as indicated, using post forming grade laminate to laminate manufacturer's instructions.
- .22 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.
- .23 Apply laminate backing sheet to reverse side of core of plastic laminate Work.
- .24 Apply laminated plastic liner sheet to interior of cabinetry where indicated.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify the adequacy and proper location of any required backing or support framing.
- .2 Verify that Mechanical, Electrical, Plumbing, and other building components affecting Work in this Section are in place

3.2 INSTALLATION

- .1 Do architectural woodwork to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
 - .1 Installation shall conform to the AWS Grade of the items being installed.
- .2 Install prefinished millwork at locations shown on drawings. Position accurately and secure in place, level, plumb and square.
- .3 Fasten and anchor millwork securely. Provide heavy duty fixture attachments for wall mounted cabinets.
- .4 Use draw bolts in countertop joints.
- .5 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.

- .6 Apply water resistant building paper over wood framing members in contact with masonry or cementitious construction.
- .7 Fit hardware accurately and securely in accordance with manufacturer's written instructions.

3.3 INSTALLATION LAMINATES

- .1 Install Work plumb, true and square, neatly scribed to adjoining surfaces.
- .2 Make allowances around perimeter where fixed objects pass through or project into laminated plastic Work to permit normal movement without restriction.
- .3 Use draw bolts and splines in countertop joints. Maximum spacing 450 mm o.c., 75 mm from edge. Make flush hairline joints.
- .4 Provide cutouts for inserts, grilles, appliances, outlet boxes and other penetrations. Round internal corners, chamfer edges and seal exposed core.
- .5 At junction of laminated plastic counter back splash and adjacent wall finish, apply small bead of sealant.

3.4 ADJUSTING & TOUCH UP

- .1 Before completion of the installation, the installer shall adjust all moving and operating parts to function smoothly and correctly.
- .2 All nicks, chips, and scratches in the finish shall be filled and retouched. Damaged items that cannot be repaired shall be replaced.

3.5 CLEANING

- .1 Clean millwork and cabinet Work inside cupboards and drawers, and outside surfaces.

3.6 PROTECTION

- .1 Protect millwork and cabinet Work from damage until final inspection.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI 208.1, Particleboard.
 - .2 ANSI A208.2, Medium Density Fibreboard (MDF) for Interior Applications.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20, Adhesive, Contact, Brushable.
- .3 Canadian Standards Association (CSA International)
 - .1 CSA O112, Standards for Wood Adhesives.
 - .2 CSA O121, Douglas Fir Plywood.
 - .3 CSA O151, Canadian Softwood Plywood.
 - .4 CSA O153, Poplar Plywood.
- .4 National Electrical Manufacturers Association (NEMA)
 - .1 NEMA LD3, High Pressure Decorative Laminates.

1.2 SUBMITTALS

- .1 In accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit manufacturer's printed product literature, specifications and data sheet.
- .3 Submit duplicate samples of joints, edging, cutouts and postformed profiles.
- .4 Provide maintenance data for laminate work for incorporation into maintenance manual.
- .5 Submit manufacturer's instructions.

1.3 QUALITY ASSURANCE

- .1 Provide Certificate of Quality Compliance upon completion of fabrication.
- .2 Provide Certificate of Quality Compliance upon satisfactory completion of installation.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Maintain relative humidity between 25 and 60% at 22°C during storage and installation.

Part 2 Products

2.1 MATERIALS

- .1 Acceptable Manufacturer: Formica Corp., 10155 Reading Road, Cincinnati, OH. 45241 (513-786-3400) or approved equal in accordance with B7.

- .2 High Pressure Decorative Plastic Laminate: Manufacturers standard and custom decorative surface papers with melamine resins, bonded under heat and pressure to kraft paper backing sheet with phenolic resins.
- .3 Laminated plastic for flat work to NEMA LD 3.
 - .1 Type: General purpose.
 - .2 Grade: HGS.
 - .3 Size: +/- 1.2 mm thick
 - .4 Surface burning characteristics: In accordance with ASTM E84.
 - .5 Finish: satin/matte
 - .6 Colour and Pattern:
 - .1 Colour 1: Formica, White 949-58
 - .2 Colour 2: Formica, Folkstone 927-58
- .4 Laminated plastic for postforming work to NEMA LD 3.
 - .1 Type: Postforming.
 - .2 Grade: HGP.
 - .3 Size: +/- 1.0 mm thick
 - .4 Surface burning characteristics: In accordance with ASTM E84.
 - .5 Finish: satin/matte
 - .6 Colour and Pattern:
 - .1 Colour 1: Formica, White 949-58
 - .2 Colour 2: Formica, Folkstone 927-58
- .5 Laminated plastic for backing sheet to NEMA LD 3.
 - .1 Type: Backer.
 - .2 Grade: BKH / BKV.
 - .3 Size: +/- 1.2 mm / +/- 0.7mm thick.
 - .4 Colour: white.
- .6 Laminated plastic for liner to NEMA LD 3.
 - .1 Type: Cabinet Liner.
 - .2 Grade: CLS.
 - .3 Size: +/- 0.5 mm thick.
 - .4 Colour: white.
- .7 Particleboard core: to ANSI 208.1, sanded faces, of thickness indicated.
- .8 Plywood core: to CSA O153 solid two sides, 19mm thick.
- .9 Plywood core at wet tops: Veneer core plywood with type II adhesive, 19mm thick.
- .10 Laminated plastic adhesive: urea resin adhesive to CSA O112.5 contact adhesive to CAN/CGSB-71.20 resorcinol resin adhesive to CSA O112.7 polyvinyl adhesive to CSA O112.4 two component epoxy thermosetting adhesive.
- .11 Sealer: water resistant sealer on glue acceptable to laminate manufacturer.
- .12 Sealants: Silicone based material to CGSB 19-GP-22M.

- .13 Draw bolts and splines: as recommended by fabricator.

2.2 SUBSTITUTIONS

- .1 In accordance with B7.

2.3 FABRICATION

- .1 Comply with NEMA LD 3, Annex A.
- .2 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .3 Ensure adjacent parts of continuous laminate work match in colour and pattern.
- .4 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 3000 mm. Keep joints 600 mm from sink cutouts.
- .5 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
- .6 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20°. Do not mitre laminate edges.
- .7 Apply laminate backing sheet to reverse side of core of plastic laminate work.
- .8 Apply laminated plastic liner sheet to interior of cabinetry.

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.

3.2 INSTALLATION

- .1 Install work plumb, true and square, neatly scribed to adjoining surfaces.
- .2 Make allowances around perimeter where fixed objects pass through or project into laminated plastic work to permit normal movement without restriction.
- .3 Use draw bolts and splines in countertop joints. Maximum spacing 450 mm oc, 75 mm from edge. Make flush hairline joints.
- .4 Provide cutouts for inserts, grilles, appliances, outlet boxes and other penetrations. Round internal corners, chamfer edges and seal exposed core.
- .5 At junction of laminated plastic counter back splash and adjacent wall finish, apply small bead of sealant.

3.3 PROTECTION

- .1 Cover finished laminated plastic veneered surfaces with heavy kraft paper or put in cartons during shipment. Protect installed laminated surfaces by approved means. Do not remove until immediately before final inspection.

3.4 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Perform care and cleaning with NEMA LD 3, Annex B.
- .3 Remove traces of primer, caulking, epoxy and filler materials; clean doors and frames.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 ASTM C 501 - Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser.
- .2 ASTM D 256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
- .3 ASTM D 570 - Standard Test Method for Water Absorption of Plastics.
- .4 ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- .5 ASTM D 696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C With a Vitreous Silica Dilatometer.
- .6 ASTM D 2583 - Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.
- .7 ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- .8 NEMA LD.3 - National Electrical Manufacturers Association, High Pressure Decorative Laminates.

1.2 SUBMITTALS

- .1 In accordance with 01 33 00 – Submittal Procedures.
- .2 Shop Drawings: Indicate design parameters, adjacent construction, materials, dimensions, thickness, fabrication details, tolerances, jointing methods, method of support, anchorages, integration with plumbing fixtures and connections, and colors.
- .3 Samples: Submit two, minimum 2 inch by 2 inch (51mm x 51mm) samples representative of colors, patterns, textures, finishes and edge treatments. Approved samples will be retained as a standard for the work.

1.3 DELIVERY, STORAGE AND HANDLING

- .1 Protect against dampness and damage during and after delivery.
- .2 Store in ventilated areas, protected from extreme changes of temperature or humidity.

1.4 QUALITY ASSURANCE

- .1 Fabricator Qualifications: Manufacturer certified solid surface fabricator/installer with a minimum of 2 years documented experience in work of this Section.
- .2 Installer Qualifications: Firm with a minimum of 2 years documented experience in installation of systems similar in complexity to those required for this Project, and acceptable to or licensed by manufacturer. 1. Submit a signed copy of the installer's

certificate, acknowledging the employee has been trained and approved by manufacturer.

- .3 Source Limitations: Obtain materials and products from single source
- .4 Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - .1 Finish areas designated by Architect.
 - .2 Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - .3 Refinish mock-up area as required to produce acceptable work.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver sheets, fabricated items, materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
- .2 Store products in manufacturer's unopened packaging until ready for installation.
- .3 Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 PROJECT CONDITIONS

- .1 Environmental Limitations: Do not deliver or install solid surfacing fabrications until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at design levels during the remainder of the construction period.
- .2 Field Measurements: Verify that field measurements are as indicated on Shop Drawings.

1.7 SEQUENCING

- .1 Sequence work to permit installation of adjacent affected construction, plumbing rough-in.
- .2 Coordinate sizes and locations of plumbing, cut-outs and other related Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

1.8 WARRANTY

- .1 Warranty: Provide manufacturer's 10 year limited warranty.

Part 2 Products

2.1 ACCEPTABLE MANUFACTURER AND PRODUCTS

- .1 Acceptable Manufacturer

- .1 Aristech Surfaces LLC – manufacturer of the Avonite® brand of solid surface; 7350 Empire Dr., Florence, KY 41042. ASD. Tel. Toll Free: 800-354-9858. Phone: 859-283-1501.
- .2 Acceptable Product
 - .1 Avonite® 100% Acrylic Class 1 Solid Surfacing.

2.2 SUBSTITUTIONS:

- .1 In accordance with B7.

2.3 MATERIALS

- .1 Nonporous, homogeneous material maintaining the same composition throughout the part with a composition of acrylic polymer, aluminum trihydrate filler and pigment.
 - .1 Avonite® 100% Acrylic Class 1 Solid Surfacing for countertops and backsplash:
 - .1 Sheet Size: As indicated on drawings. Manufacture in largest practical pieces for handling and shipping without seams
 - .2 Finish: Satin.
 - .3 Thickness: 12 mm (1/2 inch).
 - .4 Type/Color: Avonite, Super White F1-8026.
 - .2 Avonite® 100% Acrylic Class 1 Solid Surfacing applied to wall:
 - .1 Sheet Size: As indicated on drawings. Manufacture in largest practical pieces for handling and shipping without seams
 - .2 Finish: Satin.
 - .3 Thickness: 6 mm (1/8 inch).
 - .4 Type/Color: Avonite, Super White F1-8026.
- .2

2.4 ACCESSORIES

- .1 Manufacturer approved solid surface adhesive.
- .2 Ultra-Bond G Adhesive: Pre-measured and pre-tinted two part adhesive colored to match surfacing.
- .3 Silicone Sealant: Mildew-resistant, FDA-compliant sealant recommended by manufacturer, in color to match solid surface.

2.5 FABRICATION

- .1 Fabricate material in accordance with Manufacturer's instructions.
- .2 Fabricate countertops, sinks, and splash of 12 mm (1/2 inch) thick material unless otherwise indicated.
- .3 Fabricate to field measurements.
- .4 Cut and finish component edges with clean, sharp returns.
- .5 Finished edges shall have a 1/16 inch radius

- .6 Integral Cove: Provide shop fabricated integrally molded coves at back and ends where against walls or other vertical surfaces, with 3/8 inch radius between top and splash.
- .7 Integral Sinks shall be formed integrally with countertops.
- .8 Cutouts for sinks shall be smooth and uniform without saw marks. The top and bottom of openings shall be finished smooth.
- .9 Maintain minimum 1/4 inch (6 mm) radius for sink cutouts.
- .10 Cutouts for accessories shall be smooth and uniform without saw marks. The top and bottom of openings shall be finished smooth.

Part 3 Execution

3.1 EXAMINATION AND PREPARATION

- .1 Do not begin installation until substrates have been properly prepared.
- .2 Examine substrates to receive countertops. Identify conditions detrimental to proper or timely installation. Do not commence installation until conditions have been corrected.
- .3 Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.
- .4 If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- .5 Clean surfaces thoroughly prior to installation.
- .6 Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.2 INSTALLATION

- .1 Install in accordance with manufacturer's instructions installation guidelines and recommendations.
- .2 Install components plumb and level, in accordance with approved shop drawings, project installation details and manufacturer's printed instructions.
- .3 Form joints using manufacturer's approved adhesive, with joints inconspicuous in finished work.
- .4 Cure countertops for 24 hours, minimum, before exposure to moisture or pressure.
- .5 Corner joints: Form 1/8 inch-wide joints, sealed with manufacturer's color-matching silicone sealant.
- .6 Field cut countertop as required for plumbing fixtures and bath accessories.
- .7 Adhere undermount sinks/bowls to countertop using manufacturer's recommended joint adhesive.

- .8 Adhere topmount sinks/bowls to countertop using manufacturer's recommended adhesive/silicone sealant.
- .9 Provide backsplashes and end splashes as indicated on the Drawings. Adhere to countertops using manufacturer's recommended silicone sealant.
- .10 Field joints shall be hard seamed unless otherwise specified.
- .11 Attach solid surfaces material to leveled supports on frame with dabs of silicone every 18 to 24 inches.
- .12 Fasten solid surface material to frame by anchoring screws to supports at all corner blocks. Screws should not come in contact with solid surface material, as this may cause cracking of countertop.
- .13 Remove excessive adhesive and sealants.

3.3 CLEANING AND PROTECTION

- .1 Cleaning:
 - .1 Clean and polish fabrications in accordance with manufacturer's instructions.
 - .2 Promptly remove excessive mastic and seam adhesive.
 - .3 Clean tops and splashes in accordance with manufacturer's recommendations.
- .2 Protection:
 - .1 Do not permit construction near unprotected surfaces.

3.4 REPAIR

- .1 Repair or replace damaged work which cannot be repaired to Contract Administrator's satisfaction.

END OF SECTION