Malahat First Nation
Multi-Purpose Building

Malahat, B.C.

SPECIFICATIONS

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SCOTT M. KEMP ARCHITECT

END OF SECTION

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PART 1 GENERAL

1.1 REFERENCES

.1 All references to Codes, Standards and standard Specifications referred to in these Specifications or used on drawings shall mean and intend to be the currently adopted edition, amendment and revision of such reference standards in effect at the time of Bid closing.

.2 Codes and Referenced Standards requirements shall be considered minimum requirements.

.3 Applicable portions of Standards used that are not in conflict with the Contract Documents are hereby made a part of the Specifications.

.4 Modifications or exceptions to Standards shall be considered as amendments, and unmodified portions shall remain in full effect.

.5 In cases of discrepancies between the Specifications and Standards, the requirements of the Specification shall govern.

.6 In cases of discrepancies between Codes and the Specifications, the Code requirements shall govern.

.7 Where references to Codes or Standards are used in these Specifications, the Contractor must be familiar with the applicable portions and shall be governed by them.

.8 If requested, the Contractor-Construction Manager shall furnish an affidavit from manufacturers certifying that materials or products delivered to the project meet the requirements specified. However, such certifications shall not relieve the Contractor from the responsibility of complying with any added requirements specified in the Contract Documents.

1.2 DESIGNATION EXPLANATION

.1 National Standard of Canada designation (CAN): The number following the CAN designation represents the agency under whose auspices the standard is issued.
- .1 CAN1 designates CGA
- .2 CAN2 designates CGSB
- .3 CAN3 designates CSA
- .4 CAN4 designates ULC

.2 AMA – Acoustical Materials Association

.3 AMCA – Air Movement & Control Association International, Inc.

.4 AA – The Aluminum Association

.5 AAMA – American Architectural Manufacturers Association

.6 ACI – American Concrete Institute

.7 AISI – American Iron & Steel Institute

.8 ANSI – American National Standards Institute

.9 ASTM – American Society for Testing & Materials

.10 ASHRAE – American Society of Heating, Refrigerating & Air Conditioning Engineers

.11 ASME – American Society of Mechanical Engineers

.12 ASA – American Standards Association

.13 AMS – American Welding Society

.14 AWPA – American Wood Preservers' Association

.15 AWMAC – Architectural Woodwork Manufacturers Association of Canada

.16 AWCC – Association of Wall & Ceiling Contractors of B.C.

.17 BCBC – British Columbia Building Code

.18 BHMA – Builders Hardware Manufacturers Association

.19 CaGBC – Canada Green Building Council

.20 CCI – Canadian Carpet Institute

.21 CCMC – Canadian Construction Materials Centre

.22 CECA – Canadian Elevator Contractors Association

.23 CEPA 1999 – Canadian Environmental Protection Act, 1999

.24 CGA – Canadian Gas Association

.25 CGSB – Canadian General Standards Board

.26 CISC – Canadian Institute of Steel Construction

.27 CITC – Canadian Institute of Timber Construction

.28 CLSAB – Canadian Lumber Standards Accreditation Board

.29 CLA – Canadian Lumbermen’s Association

.30 CPMA – Canadian Paint Manufacturers Association
.31 CPCA – Canadian Painting Contractors Association
.32 CRCA – Canadian Roofing Contractors Association
.33 CSSBI – Canadian Sheet Steel Building Institute
.34 CSA – Canadian Standards Association
.35 CSDFMA – Canadian Steel Door and Frame Manufacturing Association
.36 CWB – Canadian Welding Bureau
.37 CWC – Canadian Wood Council
.38 CRI – Carpet and Rug Institute
.39 CRP – Certified Registered Professional – Architect
.40 CO – Change Order
.41 CM – Construction Manager
.42 CMB – Construction Materials Board
.43 CSC – Construction Specifications Canada
.44 CCN – Contemplated Change Notice
.45 CSPI – Corrugated Steel Pipe Institute
.46 CPM – Critical Path Method
.47 DDC – Direct Digital Control
.48 EEMAC – Electrical and Electronic Manufacturers Association of Canada
.49 ECP – Environmental Choice Program
.50 EPA – Environmental Protection Agency
.51 EPIP – Expanded Polystyrene Insulating Panels
.52 FM – Factory Mutual
.53 FCC – Fire Commission of Canada
.54 FSC – Forest Stewardship Council
.55 GC – General Contractor
.56 GC-03 – Green Seal Standard GC-03 Anti-Corrosive Paints
.57 GS-11 – Green Seal Standard GS-11 Paints
.58 GS-36 – Green Seal Standard for Commercial Adhesives 36
.59 HPO – Homeowner Protection Office
.60 HRAI – Heating, Refrigerating and Air-Conditioning Institute of Canada
.61 HVAC – Heating, Ventilation, and Air Conditioning
.62 HI – Hydronics Institute
.63 IAQ – Indoor Air Quality
.64 IEQ – Indoor Environmental Quality
.65 IFAI – Industrial Fabric Association International
.66 IGMAC – Insulated Glass Manufacturers Association of Canada
.67 ICF – Insulating Concrete Forms
.68 IGMA – Insulating Glass Manufacturers Alliance
.69 IGMAC – Insulating Glass Manufacturers Association of Canada
.70 ICC – International Code Council
.71 SI Units – International System of Units
.72 LEED – Leadership in Energy and Environmental Design
.73 MFMA – Maple Flooring Manufacturer's Association
.74 MMCD – Master Municipal Construction Documents Association
.75 MPDA – Master Painters and Decorators Association
.76 MPDABC – Master Painters & Decorators Association of British Columbia
.77 MPI – Master Painter's Institute
.78 MSDS – Material Safety Data Sheet
.79 MERV – Minimum Efficiency Reporting Value
.80 NAAMM – National Association of Architectural Metal Manufacturers
.81 NBC – National Building Code
.82 NAFS – North American Fenestration Standard
.83 NAIMA – North American Insulation Manufacturer's Association
.84 NEMA – National Electrical Manufacturers Association
.85 NFRC – National Fenestration Rating Council
.86 NFPA – National Fire Protection Association

.87 NHLA – National Hardwood Lumber Association
.88 NLGA – National Lumber Grades Authority
.89 NRMCA – National Ready Mixed Concrete Association
.90 NRC – National Research Council
.91 NWFA – National Wood Flooring Association
.92 NRCan – Natural Resources Canada
.93 O&M – Operating and Maintenance
.94 PEI – Porcelain Enamel Institute
.95 RPR – Registered Professional of Record
.96 RFCI – Resilient Floor Covering Institute
.97 RCABC – Roofing Contractors Association of British Columbia
.98 SMACNA – Sheet Metal and Air Conditioning National Contractors Association
.99 SSPC – Society for Protective Coatings (aka Steel Structures Painting Council)
.100 SAE – Society of Automotive Engineers
.101 SCAQMD 1113 – South Coast Air Quality Management District, Architectural Coatings
.102 SCAQMD 1168 – South Coast Air Quality Management District Rule 1168, VOC Limits
.103 SCC – Standards Council of Canada
.104 SI – Supplemental Instructions
.105 TTMAC – Terrazzo, Tile & Marble Association of Canada
.106 UL – Underwriters Laboratories Inc. (USA)
.107 ULC – Underwriters Laboratories of Canada
.108 EPA – U.S. Environmental Protection Agency
.109 USGBC – U.S. Green Building Council
.110 VOC – Volatile Organic Compound
.111 WH – Warnock Hersey
.112 WCLIB – West Coast Lumber Inspection Bureau
.113 WRCLA – Western Red Cedar Lumber Association
.114 WWPA – Western Wood Products Association
.115 WHMIS – Workplace Hazardous Materials Information System
.116 WSBC – WorkSafeBC

PART 2 PRODUCTS

2.1 NOT USED

PART 3 EXECUTION

3.1 NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Supply and install miscellaneous Metal Fabrications as indicated on the Architectural drawings and as specified herein. Scope includes but is not limited to angles, brackets, traffic bollards (6mm [1/4"] steel plate – concrete filled), pipe hand and guard rails (service and mechanical rooms), access ladders, woven wire mesh prefabricated components and other components outside the scope of the Structural Engineering drawings and specifications.

1.2 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

.1 Design steel components in accordance with CSA S136 requirements.
.2 Design bolted ledger angles and top-of-wall restraint angles, including connections.
.3 Design rooftop mechanical/electrical equipment or other curbs/supports to withstand local positive and negative wind loads listed in the Applicable Building Code.

1.3 BID AND CONTRACT DOCUMENTS

.1 All Bid Documents (drawings and specifications) prepared by the CRP-Architect and the Consultants form an integral part of this Section and are to be read as one. Any required Clarifications or Changes are to be issued to the Construction Manager by the Coordinating Registered Professional (CRP) via Addenda.
.2 Bid Documents, including any issued Addenda become the Contract Documents, after signing of the Contract between the Owner and the Construction Manager.

1.4 RELATED SECTIONS

.1	Division 00	All
.2	Division 01	All
.3	Section 09 91 01	Painting and Staining

1.5 CODES, REFERENCES AND STANDARDS

.1 American Society for Testing and Materials (ASTM):
  .1 ASTM A53/A53M-12 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
  .2 ASTM A307-14e1 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength
.2 Canadian Standards Association (CAN/CSA):
  .1 CAN/CSA G40.20-13/G40.21-13 –General Requirements for Rolled or Welded Structural Quality Steel/ Structural Quality Steel
  .2 CAN/CSA W47.1-09 (R2014) – Certification of Companies for Fusion Welding of Steel Structures
  .3 CAN/CSA W59-13 – Welded Steel Construction (Metal Arc Welding)
.3 Society for Protective Coatings (SSPC):
  .1 Structural Steel Painting Council Standards

1.6 PRE-CONSTRUCTION SUBMITTALS

.1 Make submissions in accordance with Section 01 33 00 Pre-Construction Submittals, including:
  .1 Manufacturer's Product Data and Installation Instructions.
  .2 Shop Drawings:
    .1 Indicate all materials, core thicknesses, finishes, connections, joints, methods of anchorage, number of anchors, supports, reinforcements, details, and accessories.
    .2 Where required by Code, use qualified professional structural engineer registered in British Columbia for design of miscellaneous metal fabricated items.
    .3 Include Schedule S-B by a Professional Engineer (P. Eng.), registered in British Columbia, with submission of sealed and signed shop drawings by the same Engineer.
  .3 Certificates:

.1 Indicate all materials, core thicknesses, finishes, connections, joints, methods of anchorage, number of anchors, supports, reinforcements, details, and accessories.

.4 Submit certified copy of mill reports covering chemical and physical properties of steel used in work if requested by the CRP-Architect or Structural Engineer, in the situation where the Project also has retained a Consulting Structural Engineer under the coordination of the Registered Professional.

1.7 QUALITY ASSURANCE

.1 Company specializing in performing work of this section with minimum three (3) years documented experience.

.2 Mock-Ups: Construct mock-up in accordance with Section 01 45 00 Quality Control, in a location selected by the CRP-Architect.

.1 Include all Products and Details of an Assembly.

.2 Call for review and allow twenty-four (24) hours for inspection of mock-up by the CRP-Architect before proceeding with the work.

.3 When accepted, mock-up will demonstrate minimum standard of quality required for the Work. Approved mock-up may remain as part of the finished Work.

1.8 COORDINATION WITH OTHER TRADES

.1 Supply all necessary instructions and drawings to other trades for setting bearing plates, anchor bolts and other members that are to be built in with work of other trades.

.2 Check openings and support requirements for mechanical and electrical equipment with equipment suppliers.

1.9 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 60 00 Product Requirements.

1.10 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal.

1.11 WARRANTY

.1 Provide a One (1) Year Warranty for Labour and Material, to repair any items that become defective from date of Substantial Completion of the Project.

1.12 CLOSEOUT SUBMITTALS

.1 Make submissions in accordance with Section 01 78 00 Closeout Submittals.

.2 Data for incorporation into Operations and Maintenance Manual:

.1 Include the name, address and telephone number of the Installer

.2 Include name, address and telephone number of local Distributor

.3 Submit Structural Engineers Schedule S-C with Shop Drawing submission and Schedule S-B prior to substantial Performance of the Contract. Schedules to include for Footings/Foundation design, for Fence Components and Installation to applicable Building Code Requirements.

PART 2 PRODUCTS

2.1 COMPONENTS

.1 All materials to be new, best quality, to include recycled content, free from scale, rust, grease, distortions and other defects, to full thickness and sizes indicated on drawings, conforming to appropriate material specifications. If sizes of members shown on drawings are unavailable, provide available equivalent member next size (or thickness) larger.

.2 Components to be supplied include but are not limited to the following:

.1 Steel Sections plates, angles, brackets, pipes, access ladders, stairs, handrails, and guardrails

.2 Woven stainless steel wire mesh infills (100mm x 100mm grid x 6mm diam. [4" x 4 grid x ¼"]) c/w stainless steel angle frame
.3 Welding Materials
.4 Bolts and Anchor Bolts, including expansion shield fastening
.5 Screws and Fasteners
.6 All steel except stainless steel to have Zinc-rich Primer
.7 Non-shrink pre-mixed Grout (compound consisting of fine non-metallic aggregate)
.8 Isolation coating (bituminous paint)

PART 3 EXECUTION

3.1 FABRICATION

.1 Fabricate items in accordance with reviewed shop drawings. Verify dimensions on site prior to shop fabrication.
.2 Weld in accordance with CSA W59-13 using qualified welders certified in accordance with CSA W47.1-09 (R2014). Full weld all joints and joining sections. Make welds continuous for length of each joint; spot welding is not acceptable. File or grind exposed welds smooth and flush.
.3 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured. Quality of fabrication of components will be subject to both CRP-Architect's and Consultant's approval.
.4 Supply components and accessories required for proper anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrications, unless detailed/indicated otherwise.
.5 Provide permanent bracing and stiffening (concealed as required or shown) and/or temporary erection bracing (removable after permanent supports are in place) as required.
.6 All exposed-to-view, miscellaneous metal to be free of visible imperfections, blemishes, spot welding irregularities, scaling, fabrication/trade markings, and imprints.

3.2 INSTALLATION

.1 Install work in accordance with reviewed shop drawings and construction schedule.
.2 Coordinate with other trades as required, ensuring timely installation with adjacent construction.
.3 Install work square, plumb, straight and true. Fit work accurately with tight joints and intersections.
.4 Provide suitable means of anchorage acceptable to CRP-Architect and Consultant, such as dowels, anchor clips, bar anchors, expansion bolts/shields and toggles.
.5 Exposed fastening devices to match finish and be compatible with material through which they pass.
.6 Use grout to fill uneven surfaces to obtain tight fit and full support of mounting plates.
.7 Full weld all joints and joining sections. Make exposed welds continuous for length of each joint; spot welding is not acceptable. File or grind exposed welds smooth and flush. Fill as necessary to achieve smooth and flush appearance.
.8 Perform all necessary bracing, drilling and cutting required to complete and to join work.
.9 Supply components for building/casting in accordance with shop drawings and construction schedule. Include setting templates. Coordinate with other trades as required ensuring timely delivery for installation with adjacent construction.
.10 Touch up field welds, bolts and burnt or scratched surfaces after installation using zinc-rich primer to repair damage to galvanized finishes.
.11 Metal fabrications: Refer to drawing for scheduled list of components, arrangements and details.

3.3 INSPECTION

.1 Construction Manager to notify CRP-Architect and Engineer at least twenty-four (24) hours prior to Inspection(s) required per scope of work.

3.4 FINISHING

.1 Remove welding slag and spatter. Grind, fill and sand smooth all sharp edges and welds.

.2 Remove all rust, scale, oil, and other foreign substances by wire brush, sand blasting, or any other means which provides clean steel surfaces for first class smooth and permanent galvanized finishes.

.3 Clean metal surfaces prior to application of shop primer and finish paint system using following 2 cleaning procedures, in accordance with SSPC Manual. Clean metal surfaces to be galvanized in accordance with galvanizing plant

.1 SSPC-SP1 - Solvent Cleaning

Followed by

.2 SSPC-SP6 - Commercial Blast Cleaning

.4 Galvanizing: all galvanizing to be done after fabrication. Do not alter metal fabrications after galvanizing. Hot-dip galvanize all exterior steel fabrications with no less than 600 g/m2 zinc coating to CAN/CSA-G164 [1.32 lbs./ft2].

.5 Prime painting: all prime painting (excepting members called for pre-galvanizing or hot dip galvanizing) to be done after fabrication. Do not alter metal fabrications after prime painting without touching up damaged primer. Prime paint all interior steel fabrications.

.1 Prime paint non-galvanized metal fabrications. Do not apply primer to surfaces to be field welded or items to be concrete encased.

.2 Apply primer to obtain full and even coverage at rates recommended by manufacturer.

.3 Use primer unadulterated, as prepared by manufacturer. Do not paint when temperature is lower than 7 degrees C [45 degrees F]. Paint on dry clean surfaces only.

.4 Remove non-complying primers completely from all surfaces and prepare and prime surfaces in accordance with requirements noted herein at no cost to Owner.

.5 Apply separation membrane to surfaces that will contact concrete and unlike metals.

.6 Apply isolation coating to full interior surfaces of bollards scheduled to receive grout fill.

3.5 REVIEW

.1 Construction Manager to notify CRP-Architect at least twenty-four (24) hours in advance of any necessary reviews of the work.

3.6 CLEANING

.1 Clean up in accordance with Section 01 74 11 Cleaning.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Supply and install wood framing, wood sheathing, wood sub-floor, backer boards, blocking and other miscellaneous required wood framing, as indicated on the drawings and as specified herein. Refer to Structural drawings for Rough Carpentry Structural.

1.2 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

.1 Wood Framing, design and size components to withstand live and dead loading, seismic loads and sway displacement as calculated in accordance with the B.C. Building Code 2012.

1.3 BID AND CONTRACT DOCUMENTS

.1 All Bid Documents (drawings and specifications) prepared by the CRP-Architect and the Consultants form an integral part of this Section and are to be read as one. Any required Clarifications or Changes are to be issued to the Construction Manager by the Coordinating Registered Professional (CRP) via Addenda.

.2 Bid Documents, including any issued Addenda become the Contract Documents, after signing of the Contract between the Owner and the Construction Manager.

1.4 RELATED SECTIONS

.1	Division 00	All
.2	Division 01	All
.3	Section 06 20 00	Finish Carpentry
.4	Section 08 11 01	Steel Door Frames
.5	Section 08 21 01	Wood Door Frames
.6	Section 09 25 00	Gypsum Board Assemblies
.7	Mechanical	
.8	Electrical	

1.5 CODES, REFERENCES AND STANDARDS

.1 American Wood Protection Association (ASPA):
- .1 AWPA M2-16 – Standard for Inspection of Treated Wood Products for Industrial Use
- .2 AWPA M4-15 – Standard for the Care of Preservative-Treated Wood Products

.2 Canadian Standards Association (CAN/CSA):
- .1 CAN/CSA O80 Series-15 – Wood Preservation
- .2 CAN/CSA O121-17 – Douglas Fir Plywood
- .3 CAN/CSA O141-05 (R2014) – Softwood Lumber
- .4 CAN/CSA O151-17 – Canadian Softwood Plywood

.3 National Lumber Grading Association (NLGA):
- .1 Standard Grading Rules for Canadian Lumber

.4 The British Columbia Building Code 2012

1.6 COORDINATION WITH OTHER TRADES

.1 Supply all necessary instructions and drawings to other trades for setting bearing plates, anchor bolts and other members that are to be built in with work of other trades.

.2 Check openings and support requirements for mechanical and electrical equipment with equipment suppliers.

1.7 PRE-CONSTRUCTION SUBMITTALS

.1 Make submissions in accordance with Section 01 33 00 Pre-Construction Submittals, including:
- .1 Manufacturer's Product Data and Installation Instructions.
- .2 Indicate worker cautions to be observed whenever cutting preservative treated material.
- .3 Certificates: for products treated with ACQ (Alkaline copper quaternary) Preservative by pressure impregnation, submit following information certified by authorized signing officer of treatment plant.

.1 Information listed in AWPA – American Wood Protection Association and revisions specified in CSA – Canadian Standards Association O80 Series, Supplementary Requirement to AWPA M2 applicable to specified treatment.

1.8 QUALITY ASSURANCE

.1 Company specializing in performing work of this section with minimum three (3) years documented experience.

1.9 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 60 00 Common Product Requirements.

1.10 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal.

1.11 WARRANTY

.1 Provide a One (1) Year Warranty for Labour and Material, to repair any items that become defective from date of Substantial Completion of the Project.

1.12 CLOSEOUT SUBMITTALS

.1 Make submissions in accordance with Section 01 78 00 Closeout Submittals.
.2 Data for incorporation into Operations and Maintenance Manual:
  .1 Include the name, address and telephone number of the Installer
  .2 Include name, address and telephone number of local Distributor

PART 2 PRODUCTS

2.1 COMPONENTS AND ACCESSORIES

.1 Lumber: softwood, S4S. Moisture content: maximum 19% for exterior locations and maximum 12% for interior locations. Refer to drawings for member sizes, profiles and lengths.
.2 Nailers, plates, blocking, and liners: SPF species.
.3 Shims, tapers: Western Red Cedar species or SPF (Spruce/Pine /Fir) species.
.4 Interior Plywood: Douglas Fir exterior grade plywood displaying the CANPLY certification mark and employing phenol formaldehyde adhesive only.
.5 Exterior Plywood or Wood: All exposed or plywood or wood in contact with soil or concrete to be pressure treated (CCA treated). Exterior (protected) plywood wall sheathing need not be pressure treated (OSB board is not recommended). Any pressure treated plywood used to be less than 19% moisture content (subject to random testing).
.6 Crezone Plywood: Crezone® Panels with backer.
.7 Nailers, plates, blocking, and liners: DFP – Douglas Fir Plywood or CSP – Canadian Softwood Plywood material, "Sheathing" grade.
.8 Surface-mounted equipment backboards: DFP material "G1S" grade, CSP material "S1S" grade.
.9 Ardox Spikes or Wood Screws: 89mm [3 ½"]
.10 Bolts: 12.5 mm dia. [13''] unless indicated otherwise, complete with nuts and washers.
.11 Screws: self-tapping and self-drilling casehardened cadmium plated or epoxy coated wafer-head type.
.12 Proprietary fasteners (toggle bolts, expansion shields, lag bolts, pins, brackets and support clips): purpose-made to suit application.
.13 Use double hot-dipped galvanized fasteners where in contact with CCA treated plywood.
.14 Use stainless steel fasteners where in contact with ACQ treated lumber.
.15 Deck Composite Boards: Based on TREX® THROUGH AND THROUGH (25mm x 152mm x 300mm [1'' x 6'' x 12"]) natural wood-grain, made with 95% recycled materials. Colour to be selected by the CRP-Architect.

PART 3 EXECUTION

3.1 INSTALLATION

.1 Install members true to line, levels and elevations, square and plumb.
.2 Construct continuous members from pieces of longest practical length.
.3 Align and plumb faces of lumber and panel materials to tolerances of 1:600.
.4 Install wood and plywood components to other building components rigidly secure in place and well anchored.
.5 Secure in place as follows, unless detailed/indicated otherwise.
  .1 To concrete and masonry: screws in conjunction with drilled-in inserts at maximum 200mm [8"] spacing.
  .2 To structural steel members: purpose-made bolts at maximum 200mm [8"] spacing.
.6 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
.7 Countersink bolts where necessary to provide clearance for other work.
.8 Install back-up/blocking built into wood framing for support of surface-mounted wall items including but not limited to wall stops, cabinets, shelving, bathroom accessories and Owner-supplied equipment. Coordinate locations and spacing to suit surface-mounted wall items. Install minimum 38mm x 240mm [1 ½'' x 9''] size wood blocking fixed in between framing/studs.
.9 Equipment backboards:
  .1 Use full size sheets of 19 mm [3/4''] thick plywood.
  .2 Mount on 19 mm x 38 mm [3/4'' x 1 ½''] size wood furring running around full perimeter with continuous furring positioned vertically 300 mm o.c. [12''] intervals to board fields.
  .3 Fix backboards to furring using drywall screws spaced 300 mm o.c. [12''] around board perimeters and 400 mm o.c. [16''] along intermediate furring. Set screw heads flush with plywood face without tearing face veneers.
  .4 Have backboards back-primed prior to installing. Coordinate with painting trade.
  .5 Where surface-mounted equipment boards not detailed/indicated install full size sheets of 19 mm [3/4''] thick plywood wall backup direct to stud framing behind gypsum board wall finishes.

3.2 WOOD PRESERVATIVES

.1 Treat wood to CSA O80.34 (borate treatment) or with ammoniacal copper quat type B (ACQ-B), to obtain minimum net retention of 4 kg/m3 [9 lbs/ft3] of wood.
.2 Treat plywood to CSA O80 Series/O80S2 using CCA water-borne preservative in accordance with AWPA Standard P5-81. Treatment must result in a minimum retention of 4 kg/m3 [9 lb./ft3].
.3 All exterior plywood/wood to be preservative treated (P.T.).
.4 Following water-borne preservative treatment, dry material to maximum moisture content of 19%.
.5 Re-treat surfaces of pressure treated components exposed by cutting, trimming and boring using surface-applied wood preservative compatible with original treatment.
.6 Re-treat surfaces before installation. Apply by dipping or by brush to completely saturate and maintain wet film on surfaces for minimum three (3) minute soak on lumber and one (1) minute soak on plywood, unless recommended otherwise by treatment plant.

3.3 REVIEW

.1 Construction Manager to notify CRP-Architect at least twenty-four (24) hours in advance of any necessary reviews of the work.

3.4 CLEANING

.1 Clean up in accordance with Section 01 74 11 Cleaning.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Supply and install finishing (cedar) wood materials and trim, install wood doors (when applicable), door hardware and fixtures and finishing accessories, as indicated on the drawings and as specified herein.

1.2 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

.1 Finish Carpentry to AWMAC standards.

1.3 BID AND CONTRACT DOCUMENTS

.1 All Bid Documents (drawings and specifications) prepared by the CRP-Architect and the Consultants form an integral part of this Section and are to be read as one. Any required Clarifications or Changes are to be issued to the Construction Manager by the Coordinating Registered Professional (CRP) via Addenda.

.2 Bid Documents, including any issued Addenda become the Contract Documents, after signing of the Contract between the Owner and the Construction Manager.

1.4 RELATED SECTIONS

.1	Division 00	All
.2	Division 01	All
.3	Section 06 40 00	Architectural Millwork
.4	Section 08 11 01	Steel Doors Frames
.5	Section 08 21 00	Wood Doors
.6	Section 07 92 00	Joint Sealants
.7	Section 09 25 00	Gypsum Board Assemblies

1.5 CODES, REFERENCES AND STANDARDS

.1 Architectural Woodwork Manufacturers Association Canada (AWMAC):
- .1 All materials, glues, fasteners, details and work quality shall conform to “Custom Grade” Standards

.2 National Lumber Grading Association (NLGA):
- .1 Lumber Grades: Shall conform to Standard Grading Rules of BC Coast Dimension Lumber grades.

1.6 PRE-CONSTRUCTION SUBMITTALS

.1 Make submissions in accordance with Section 01 33 00 Pre-Construction Submittals, including:
- .1 Manufacturer’s Product Data and Installation Instructions.
- .2 Samples: Submit samples requested by the CRP-Architect and Consultants prior to ordering Project material.

1.7 QUALITY ASSURANCE

.1 Company specializing in performing work of this section with minimum (3) years documented experience.

.2 Mock-Ups: Construct mock-up in accordance with Section 01 45 00 Quality Control, in a location selected by the CRP-Architect.
- .1 Include all Products and Details of an Assembly.
- .2 Call for review and allow twenty-four (24) hours for inspection of mock-up by the CRP-Architect before proceeding with the work.
- .3 When accepted, mock-up will demonstrate minimum standard of quality required for the Work. Approved mock-up may remain as part of the finished Work.

1.8 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 60 00 Common Product Requirements.

1.9 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal.

1.10 WARRANTY

.1 Provide a One (1) Year Warranty for Labour and Material, to repair any items that become defective from date of Substantial Completion of the Project.

1.11 CLOSEOUT SUBMITTALS

.1 Make submissions in accordance with Section 01 78 00 Closeout Submittals.
.2 Data for incorporation into Operations and Maintenance Manual:
  .1 Include the name, address and telephone number of the Installer
  .2 Include name, address and telephone number of local Distributor

PART 2 PRODUCTS

2.1 MATERIALS

.1 Wood Trim, Casings, Bases, Sills, and Shelving.
  .1 Select clear Cedar and Fir conforming to AWMAC Custom Grade.
  .2 MDF: minimum density of 700-720 kg/m^3 [1543-1587 lb./ft^3] Base and casing trim to profiles selected, pre-primed. Shelving to be 16mm [5/8''] thick minimum, with sanded edges.
  .3 Lumber Moisture Content: Board and dimension lumber moisture content for interior to be 12% or less.
  .4 All shelving ~~to~~ shall be a minimum of 16mm [5/8''] thick ~~minimum~~.
  .5 Melamine coated particleboard trim or shelving is not recommended.
  .6 Site Painted finishes, except where pre-finished.
.2 Fasteners:
  .1 Supply and install rough hardware as indicated and required, including bolts, nuts, washers, nails, screws, etc.
.3 Closet Rods: 38mm [1-½''] diameter heavy-duty metal chrome finish c/w metal chrome brackets and supports by Richelieu.
.4 Glue: Water based, acceptable products: DAP Weldwood carpenter's glue or approved equal.

PART 3 EXECUTION

3.1 INSTALLATION

.1 Doors:
  .1 Hang all doors to open and close smoothly with no binding whatsoever. An even margin shall be kept between door and jamb, sufficient on all sides to allow free action of the door. Readjust and check all doors upon completion of the work, correcting any restrictions to the free action of the door caused by paint, moisture or improper fixing of hardware, etc.
  .2 Hardware: Install all finish hardware.
  .3 Check all items delivered to ensure that they conform to the approved hardware schedule. Examine hardware list and all contract documents for the true quantities of hardware required, their exact location, function and operation, and check delivered items to ensure that all requirements are met.
.2 Miscellaneous Items:
  .1 Install all trim, shelving and other items deemed to be installed under Finish Carpentry by the Construction Manager.

3.2 REVIEW

.1 Construction Manager to notify CRP-Architect at least twenty-four (24) hours in advance of any necessary reviews of the work.

3.3 CLEANING

.1 Clean up in accordance with Section 01 74 11 Cleaning.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Supply and install work Plastic Laminate finishes to Millwork and misc. wood components, as indicated on the drawings and as specified herein.

1.2 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

.1 Plastic Laminate Surfaces adhered to Counter Top Assemblies. Comply with applicable Federal Environmental regulations.

1.3 BID AND CONTRACT DOCUMENTS

.1 All Bid Documents (drawings and specifications) prepared by the CRP-Architect and the Consultants form an integral part of this Section and are to be read as one. Any required Clarifications or Changes are to be issued to the Construction Manager by the Coordinating Registered Professional (CRP) via Addenda.

.2 Bid Documents, including any issued Addenda become the Contract Documents, after signing of the Contract between the Owner and the Construction Manager.

1.4 RELATED SECTIONS

.1	Division 00	All
.2	Division 01	All
.3	Section 06 20 00	Finish Carpentry
.4	Section 06 24 00	Architectural Millwork
.5	Mechanical	
.6	Electrical	

1.5 CODES, REFERENCES AND STANDARDS

.1 American Society for Testing and Materials (ASTM):
- .1 ASTM D2832-92(2016) – Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings

.2 Architectural Woodwork Manufacturers Association Canada (AWMAC):
- .1 All materials to QSI Manual "Custom Grade" requirements. Composite wood products and plywood must not contain added urea-formaldehyde resin.

.3 Canadian Standards Association (CAN/CSA):
- .1 CSA O112 Series Evaluation of Adhesives for Structural Wood Products

.4 National Electrical Manufacturers Association (NEMA):
- .1 ANSI/NEMA LD 3:2005 – High Pressure Decorative Laminates

.5 South Coast Air Quality Management District (SCAQMD):
- .1 SCAQMD Rule 1168 (A2017) – Adhesive and Sealant Applications

1.6 PRE-CONSTRUCTION SUBMITTALS

.1 Make submissions in accordance with Section 01 33 00 Submittal Procedures, including:
- .1 Manufacturer’s Product Data and Installation Instructions.
- .2 Samples:
  - .1 Submit complete plastic laminate colour sets for CRP-Architect's colour selection use.
  - .2 Submit cabinet hardware samples requested by CRP-Architect prior to ordering Project materials.
- .3 Shop Drawings:
  - .1 Indicate details of construction, profiles, jointing, fastening and other related details.
  - .2 Scale: profiles full size, details 1/2 full size.
  - .3 Indicate all materials, thicknesses and finishes.

1.7 QUALITY ASSURANCE

.1 Company specializing in performing work of this section with minimum three (3) years documented experience.

1.8 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal.

.2 Supply and install architectural woodwork in accordance with the AWMAC Architectural Woodwork Standards, current edition.

1.9 WARRANTY

.1 Provide a One (1) Year Warranty for Labour and Material, to repair any items that become defective from date of Substantial Completion of the Project.

1.10 CLOSEOUT SUBMITTALS

.1 Make submissions in accordance with Section 01 78 00 Closeout Submittals.

.2 Data for incorporation into Operations and Maintenance Manual:

.1 Include the name, address and telephone number of the Installers

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

.1 Wilsonart
.2 Formica
.3 Nevemar
.4 Arborite

2.2 MATERIALS

.1 General Purpose Plastic Laminates:

.1 Laminated plastic for flatwork: Grade GP, Type S, 1.14 mm [45mils] thick; colour/ pattern per finishes schedule.

.2 Laminated plastic backing sheet: Grade BK, Type S not less than 0.5 mm [20mils] thick of same thickness and colour as face laminate.

.3 Laminated plastic liner sheet: Grade GP, Type S, 0.76 mm [30mils] thick, colour (black or as indicated on Finishes Schedule).

.2 Miscellaneous Materials:

.1 Bolts, wood screws, and splines: type and size to suit application, corrosion-resistant alloy or plated where exposed to view.

.2 Sealant: one component silicone based, refer to Section 07 92 00 Joint Sealants.

.3 Adhesives: recommendations by Manufacturers. Adhesives to meet SCAQMD Rule #1168 (A2017) for VOC limits.

.4 T edging: solid vinyl extrusions with integral friction fit spline for insertion into machine cut slots, edging face widths to match respective application, rounded surfaces, integral colours selected by CRP-Architect.

PART 3 EXECUTION

3.1 INSTALLATION

.1 Install work plumb, true and square, neatly scribed to adjoining surfaces.

.2 Apply Laminates 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 [118’’].

.3 Form shaped profiles and bends as indicated, using post-forming grade laminate-to-laminate manufacturer's instructions.

.4 Apply laminated plastic liner sheet to interior of cabinetry where indicated.

.5 Ensure adjacent parts of continuous laminate work match in colour and pattern.

.6 Make allowances around perimeter where fixed objects pass through or project into laminated plastic work to permit normal movement without restriction.

.7 Obtain governing dimensions before fabricating items that are to accommodate or abut appliances, equipment and other materials.

.8 Use draw bolts and splines in countertop joints. Maximum spacing 450 mm oc [18''], 75 mm [3''] from edge. Make flush hairline joints.

.9 Provide cutouts for inserts, grilles, appliances, outlet boxes and other penetrations. Round internal corners, chamfer edges and seal exposed core.

.10 Where counter tops are not pre-formed and at junction of counter top apply bead of sealant and at laminated plastic counter back splash and adjacent wall finish, apply small bead of sealant.

.11 Apply laminated plastic to units as indicated. Adhere laminated plastic over entire surface. Make corners with hairline joints. Use full sized laminate sheets. Make joints only where indicated approved. Slightly bevel arises.

.12 For site application, offset joints in plastic laminate facing from joints in core.

3.2 PROTECTION

.1 Cover finished surfaces with heavy kraft paper. Do not remove until immediately before substantial review.

3.3 REVIEW

.1 Construction Manager to notify CRP-Architect at least twenty-four (24) hours in advance of any necessary reviews of the work.

3.4 CLEANING

.1 Clean up in accordance with Section 01 74 11 Cleaning.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Supply and install all new casework (cabinets), all associated new work surfaces (and counter tops), all new shelving, all new wood doors/wood frames, hardware and all misc. new finishing materials, as indicated on the drawings and as specified herein.

1.2 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

.1 Millwork Components complete with associated Hardware and Finishes to AWMAC standards.

1.3 BID AND CONTRACT DOCUMENTS

.1 All Bid Documents (drawings and specifications) prepared by the CRP-Architect and the Consultants form an integral part of this Section and are to be read as one. Any required Clarifications or Changes are to be issued to the Construction Manager by the Coordinating Registered Professional (CRP) via Addenda.

.2 Bid Documents, including any issued Addenda become the Contract Documents, after signing of the Contract between the Owner and the Construction Manager.

1.4 RELATED SECTIONS

.1	Division 00	All
.2	Division 01	All
.3	Section 06 10 10	Rough Carpentry – Non-Structural
.4	Section 06 20 00	Finish Carpentry
.5	Section 06 24 10	Plastic Laminates
.6	Section 08 21 00	Wood Doors
.7	Section 09 25 00	Gypsum Board Assemblies
.8	Mechanical	
.9	Electrical	

1.5 CODES, REFERENCES AND STANDARDS

.1 American National Standards Institute (ANSI):
- .1 ANSI A208.2 – Medium Density Fiberboard (MDF) for Interior Applications

.2 American Society for Testing and Materials (ASTM):
- .1 ASTM D2832-92(2016) – Standard Guide for Determining Volatile and Non-volatile Content of Paint and Related Coatings

.3 Architectural Woodwork Manufacturers Association (AWMAC):
- .1 Millwork Trade must be a Member of AWMAC in good standing
- .2 All materials to QSI Manual "Custom Grade" requirements. Composite wood products and plywood must not contain added urea-formaldehyde resin

.4 Canadian Standards Association (CAN/CSA):
- .1 CSA O112 Series Evaluation of Adhesives for Structural Wood Products

.5 National Electrical Manufacturers Association (NEMA):
- .1 ANSI/NEMA LD 3:2005 – High Pressure Decorative Laminates

1.6 PRE-CONSTRUCTION SUBMITTALS

.1 Make submissions in accordance with Section 01 33 00 Submittal Procedures, including:
- .1 Manufacturer's Product Data and Installation Instructions.
- .2 Samples:
  - .1 Submit complete plastic laminate colour sets for CRP-Architect's colour selection use.
  - .2 Submit cabinet hardware samples requested by CRP-Architect prior to ordering Project materials.
- .3 Shop Drawings:
  - .1 Indicate details of construction, profiles, jointing, fastening and other related details.
  - .2 Scale: profiles full size, details 1/2 full size.
  - .3 Indicate all materials, thicknesses and finishes.

1.7 QUALITY ASSURANCE

.1 Company specializing in performing work of this section with minimum three (3) years documented experience.

.2 Supply and install architectural woodwork in accordance with the AWMAC Architectural Woodwork Standards, current edition.

.3 Mock-Ups: Construct mock-up in accordance with Section 01 45 00 Quality Control, in a location selected by the CRP-Architect.

.1 Standard of Construction to be based on acceptance of Mock-up.

.2 Call for review and allow twenty-four (24) hours for inspection of mock-up by the CRP-Architect before proceeding with the work.

.3 When accepted, mock-up will demonstrate minimum standard of quality required for the Work. Approved mock-up may remain as part of the finished Work.

1.8 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 60 00 Product Requirements, unless respective material manufacturer requires more stringent care.

.2 Protect architectural woodwork against dampness and damage during and after delivery.

.3 Store architectural woodwork in ventilated areas, protected from extreme changes of temperature or humidity.

1.9 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal.

1.10 WARRANTY

.1 Provide a One (1) Year Warranty for Labour and Material, to repair any items that become defective from date of Substantial Completion of the Project.

1.11 CLOSEOUT SUBMITTALS

.1 Make submissions in accordance with Section 01 78 00 Closeout Submittals.

.2 Data for incorporation into Operations and Maintenance Manual:

.1 Include the name, address and telephone number of the Installer

.2 Include name, address and telephone number of local Distributor

PART 2 PRODUCTS

2.1 MATERIALS

.1 Core materials, as well as finishes, to be selected by the ~~Interior Designer~~.CRP-Architect.

.1 Clear Birch or Fir plywood for casework and shelving G2S with no voids, MDF doors, drawer fronts for plastic laminate finishes, with no added urea formaldehyde. Acceptable product Pure Bond by Columbia Forest products or pre-approved alternative.

.2 Medium Density Fiberboard (MDF): "Medite Board" with density of 769 kg/cu.m [48 lb./cu. ft] to ANSI A208.2. Phenolic or Soy bonded with no added urea formaldehyde (NAUF).

.3 High Pressure Plastic Laminates.

.4 Particleboard: prefinished with Melamine coating is not recommended for any millwork construction, including any concealed or internal hidden components.

.5 Hardboard is not recommended for any millwork construction, including any concealed or internal hidden components.

.2 Hardware:

.1 Use only heavy-duty hardware, to be selected by the CRP-Architect.

.2 Mount flush to face of cabinetry. Finishes 626 – satin chromium plated.

.1 Hinges: heavy-duty, concealed European design, min. 105^0 opening, self-closing operation and secure joint to resist removal of door, c/w mounting plates. Provide hinges for full overlay and twin application, as required.

.1 Product: Blum Modul 107^0.

.2 Drawer slides: side mount, ball bearings, full extension, telescoping, trigger disconnect, chrome or zinc finish. Products (select to suit use):
  .1 Accuride: 3832 series - 45 kg rating [99lbs]; 3640 series - 90 kg rating [198lbs] (storage drawers).
  .2 Grant, HEG-4932 - load rating 60 kg [132lbs].
.3 Latches: magnetic touch. Product: Richelieu 9783-145.
.4 Pulls: wire type D-pull 9 mm diameter [11/32''], 96 mm centers [4''], 26 mm depth [1''], chrome satin finish. Product: Gallery 945-26D, or Richelieu 2214-175.
.5 Door and Drawer bumpers: 5 mm diameter [3/16''], neutral colours; 2 bumpers per door up to 1200 mm in door height [47'']; 3 bumpers per door over 1200 mm in door height [47'']; 2 bumpers per drawer.
.6 Adjustable shelf supports: (semi) recessed (not surface mounted) pilaster c/w seismic support clips. Products: Richelieu, Pilasters 2552G c/w clips 242762G.
.7 Grommets to suit wiring through millwork components: cable entry plug, plastic, typical, Ø72 mm, larger Ø where required. Product: Richelieu A 60.0910-90, or larger size, as required.

.3 Plastic Laminates:
  .1 Laminated plastic general: to NEMA LD 3
    .1 Grade: HGS
    .2 Size: 1.6 mm thick [63mils]
    .3 Colour/pattern: to be selected
  .2 Laminated plastic for postforming work: to NEMA LD 3
    .1 Grade: HGP
    .2 Size: 0.75 mm thick [29.5mils]
    .3 Colour/pattern: to be selected
  .3 Laminated plastic for backing sheet: to NEMA LD 3.
    .1 Type: Backer
    .2 Grade: BKH
    .3 Size: 0.75 mm thick [29.5mils]
    .4 Colour: white
  .4 Laminated plastic for liner: to NEMA LD 3.
    .1 Type: Cabinet Liner.
    .2 Grade: CLS.
    .3 Size: 0.75mm thick [29.5mils].
    .4 Colour: white

2.2 MILLWORK CONSTRUCTION

.1 General Requirements:
  .1 QSI Manual "Custom Grade". QSI Manual design details for flush overlay construction and as detailed/indicated.
  .2 Fabricate with carefully machined joints. Securely glue and screw all joints.
  .3 Connect tops, bottom shelves and rails to side panels with appropriate fasteners. Fasten hanging rails to upper cabinets by continuous rebate, glued and pinned.
  .4 Provide shelving and accessories as detailed on drawings. Where no shelving or accessories indicated provide 2 shelves in upper cabinets, no shelves in upper cabinets above fridge or microwave and 1 shelf in lower cabinets except at sink and as noted on drawings. Tall cupboards to be divided at the bottom of upper cabinet with tall doors on the bottom half, one shelf full depth in top half and two shelves full depth in bottom half. Cupboard over fridge to be extra deep.
  .5 Seal edges of cutouts to prevent water penetration and damage.
.2 Exposed parts, including underside surfaces of all overhead cabinets:
  .1 Core: G2S Plywood
  .2 Face veneers: HGS plastic laminate
.3 Semi-exposed parts/internal gables:
  .1 Core: MDF
  .2 Face veneer: CLS/BKL plastic laminate
.4 Shelves:

.1 Core: G2S Plywood
.2 Shelf spans/thicknesses: in accordance with QSI Manual 400-G-8.
.3 Face veneers: HGS plastic laminate
.4 3mm [1/8''] solid PVC edge banding

.5 Drawers:
.1 Core: G2S Plywood (Sides, backs, bottoms)
.2 Front/face: MDF, edge veneers: HGS plastic laminate
.3 3mm [1/8''] solid PVC edge banding

.6 Doors:
.1 Core: MDF
.2 Face veneers: HGS plastic laminate
.3 3mm [1/8''] solid PVC edge banding

.7 Countertops:
.1 Countertops, to be 19mm [3/4"] GP-S post formed plastic laminate on MDF board core, with square wrap edge, and integral 100mm high [4''] back splash and separate side splashes. Seal joints between splash and wall and between splash and counter with silicone sealant.
.2 Face veneers: Postforming HGP plastic laminate.

PART 3 EXECUTION

3.1 FABRICATION – CASEWORK

.1 Assemble using dowels with bolts construction.
.2 Cabinets over 813 mm wide [32''] to have mullion installed for fifth support of adjustable shelves.
.3 Install cabinet hardware for doors, shelves, and drawers to shop standards. Fit hardware accurately and securely in accordance with manufacturer's written instructions.
.1 Lower cabinets, shelf units: mount shelf standards flush unless noted otherwise.
.2 Upper cabinets, tall shelf units: notch shelving to fit around surface mounted standards for seismic restraint of shelving unless detailed/indicated otherwise.
.4 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
.5 Hanging rails to be unfinished 16mm [5/8"] fir plywood.
.6 Work delivered to site to be shop assembled for ease of handling, and to also ensure clear passage through building openings.
.7 Obtain governing dimensions before fabricating items, which are to accommodate or abut appliances, equipment and other materials.
.8 In addition to filler pieces detailed/indicated on drawings, fabricate filler pieces for installation in locations identified in Installation of this Section. All filler pieces to match finish of adjacent woodwork components.
.9 Kick space heater access: where kick space heaters are provided in bathrooms or kitchens, install an access panel for servicing of heater. Access panel shall fully cover bottom of base cabinet. Coordinate with other trades involved for location and sizing of grille openings and access panels.
.10 Lighting valances: to match cabinet finish for under cabinet lighting.

3.2 INSTALLATION

.1 Install architectural woodwork in accordance with QSI Manual requirements.
.2 Job site conditions for installation of architectural woodwork to be in accordance with QSI Manual requirements.
.3 Install architectural woodwork at locations detailed/indicated. Position accurately, level, plumb and straight.
.4 Use sufficient securement for wall mounted cabinets to support weight of cabinets plus superimposed load of 50 kg [110lbs] per running metre of each cabinet.
.1 Fix to stud framing using fasteners detailed/indicated fixed through wall finish into framing/blocking behind.
.2 Coordinate wall framing to include intermediate backing/blocking as required for attachment of components.

.3 Direct fastening to gypsum board alone not acceptable.

.5 Use sufficient securement for floor-mounted cabinets to keep them in place and rigidly upright. Provide sufficient securement so that 2 persons pushing on one side are unable to move or upset cabinets.

.6 When necessary to cut, and fit on site, make material with ample allowance for cutting. Provide trim for scribing and site cutting.

.7 Install matching filler pieces:

.1 To conceal spaces between bottoms of upper cabinet units (wall hung units) and wall surfaces and

.2 To conceal spaces between tops of upper cabinet units (wall hung units) and wall surfaces.

.8 Scribe work, which is against other building materials, leaving gaps of maximum 1 mm [3/64'']. Do not use additional overlay trim for this purpose.

.9 Apply small bead of sealant to laminated plastic backsplash inside corners to produce water-resistant joints. Apply and tool sealant to produce smooth continuous joints free of voids, snags, impurities and smears.

.10 Place cabinet drawer/door locks keys in clear plastic bag(s) and tie securely to cupboard door pull for Owner's retrieval.

.11 Apply small bead of sealant to floor/cabinet junction and at plumbing fixture and countertop.

3.3 REVIEW

.1 Construction Manager to notify CRP-Architect at least twenty-hour (24) hours in advance of any necessary reviews of the work.

3.4 CLEANING

.1 Clean up in accordance with Section 01 74 11 Cleaning.

END OF SECTION