



Architectural Specification

Horizon Neighborhood

1500 plus SF Cabin

Issued for Construction
Mackay-Lyons Sweetapple Architects Limited
July 28, 2017
Summit Powder Mountain
Eden, Utah

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SECTION 012300 – ALTERNATES

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2. Related Sections:

A. 113013 – Residential Appliances

1.3. DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4. PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other work of the Contract.

C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1. SCHEDULE OF ALTERNATES

A. Alternate No. A-1: Cabin 1000 “Warm Option”

1. Base bid
 - a. Provide Residential Appliances as specified for “Cool Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Cool”

2. Alternate:
 - a. Provide Residential Appliances as specified for “Warm Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Warm”
- B. Alternate No. A-2: Cabin 1500 “Warm Option”
 1. Base bid
 - a. Provide Residential Appliances as specified for “Cool Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Cool”
 2. Alternate:
 - a. Provide Residential Appliances as specified for “Warm Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Warm”
- C. Alternate No. A-3: Cabin 1500 plus “Warm Option”
 1. Base bid
 - a. Provide Residential Appliances as specified for “Cool Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Cool”
 2. Alternate:
 - a. Provide Residential Appliances as specified for “Warm Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Warm”
- D. Alternate No. A-4: Cabin 2500 “Warm Option”
 1. Base bid
 - a. Provide Residential Appliances as specified for “Cool Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Cool”
 2. Alternate:
 - a. Provide Residential Appliances as specified for “Warm Option” in Section 113013 – Residential Appliances
 - b. Provide finishes as described in “Interior Finish Schedule – Warm”

END OF SECTION 012300

SECTION 035300 – CONCRETE TOPPING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Concrete Mix Specifications
- B. Mock-up
 - 1. Contractor shall prepare a mock-up in a field location where polished concrete is shown.
 - 2. Mock-up shall be no less than 4'-0" x 4'-0".
 - 3. No work on polished concrete shall proceed until the Architect has approved the mock-up sample.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

1.4. Standards

- A. Concrete shall conform with Concrete Polishing Association of America (CPAA) recommendations.

PART 2 – PRODUCTS

2.1. Concrete Mix Design

- A. For the portion of the concrete that will be polished, each mix ingredient should be from the same source, from the same respective batch, and each delivered to the concrete producer in one delivery.
- B. Type I portland cement according to ASTM C150 - 09 Standard Specification for Portland Cement.
- C. A water-to-cement (W/C) ratio is .45.
- D. A uniformly graded mix of not less than 3 aggregate sizes - fine, intermediate, and large
- E. The mix shall not be air entrained.

- F. Inclusion of admixtures, plasticizers, slag, fly ash, or other products replacing portions of the portland cement in the concrete mix is not recommended. If any of these are used, the total volume shall not exceed 20 percent of the portland cement volume.
- G. Admixtures shall not be calcium chloride based.
- H. The compressive strength shall not be less than 3,500 psi.

2.2. Concrete sealer/hardener

- A. Consolideck LS/CS as manufactured by Prosoco, Inc.

PART 3 – EXECUTION

3.1. Concrete Placement

- A. Depth of finished concrete floor to be 2” to accommodate in-floor radiant heating system as per manufacturer's specification.
- B. 6x6 welded wire mesh reinforcing as required by structural.
- C. All floors, except where noted, to be polished concrete slab with shallow saw cut control joints as specified in architectural and structural drawings.
- D. Confirm control joint locations with architect prior to cut.
 - 1. Control joints in finished concrete surface to be cut prior to the erection of framed walls.
 - 2. All joints to be cut straight through to the edge of the concrete to prevent cracking.
 - 3. Finished concrete surface to be protected at all times during the construction process to ensure damage does not occur.

3.2. Concrete Finishing

- A. Contractor shall achieve a Level 3 – Semi Polished classification following recommendations of the Concrete Polishing Association of America.
- B. Apply sealer/hardener

3.3. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 035300

SECTION 055000 – METAL FABRICATIONS

PART 1 – GENERAL

1.1. Submittals

A. Shop Drawings

1. Show fabrication and installation details for metal fabrications.
2. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

B. Samples for Verification

1. All extruded or otherwise premanufactured materials.

C. Informational Materials

1. Qualification Data, for qualified professional engineer when required by building regulations.

1.2. PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1. Establish Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating metal fabrications without field measurements. Coordinate wall and other contiguous construction to ensure that actual dimensions correspond to established dimensions.
2. Provide allowance for trimming and fitting at site.

PART 2 – PRODUCTS

2.1. METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.
- B. All exterior fabricated metals to be galvanized and painted unless otherwise noted.

2.2. FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use.
- B. Select fasteners for type, grade, and class required.
1. Provide stainless-steel fasteners for fastening aluminum.
 2. Provide stainless-steel fasteners for fastening stainless steel.
 3. Provide stainless-steel fasteners for fastening nickel silver.
 4. Provide bronze fasteners for fastening bronze.

2.3. MISCELLANEOUS MATERIALS

- A. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer compatible with topcoat.
- B. Galvanizing Repair Paint: High-zinc-dust-content paint compatible with paints specified to be used over it.

PART 3 – EXECUTION

A. FABRICATION, GENERAL

- 1. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- 2. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- 3. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- 4. Form exposed work with accurate angles and surfaces and straight edges.
- 5. Weld corners and seams continuously to comply with the following:
 - a. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - b. Obtain fusion without undercut or overlap.
 - c. Remove welding flux immediately.
 - d. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- 6. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.
- 7. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- 8. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
- 9. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
- 10. Where units are indicated to be cast into concrete, equip with integrally welded steel strap anchors, 1/8 by 1-1/2 inches (3.2 by 38 mm), with a minimum 6-inch (150-mm) embedment and 2-inch (50-mm) hook, not less than 8 inches (200 mm) from ends and corners of units and 24 inches (600 mm) o.c., unless otherwise indicated.
- 11. All exposed interior steel members, connectors, plates, trusses and cross bracing to be Architecturally Exposed Structural Steel (AESS) 4, shop-primed and painted unless otherwise noted.
- 12. Align all bolts to same direction.

13. Weld and grind flush all nuts and bolts where their position affects continuity of interior finish.

3.2. INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Field Welding: Comply with the following requirements:
 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welding flux immediately.
 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.
- E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.3. ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 1. Apply by brush or spray to provide a minimum 2.0-mil (0.05-mm) dry film thickness.
- B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 055000

SECTION 055313 – BAR GRATINGS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product data for all products used
- B. Product samples for all products used, minimum 12” x 12”
- C. Shop Drawings
- D. Engineer Certification, for span capability and code compliance of product selected.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURER

- A. McNichols Co., 2502 N. Rocky Point, #750, Tampa, FL 33607; Phone: 800-237-3820 (toll free), Fax: 813-288-1828

B. PRODUCT

1. Floor Grating

- a. Type 19-W-4 Welded Bar Grating, Galvanized Hot Dipped, Serrated
- b. Bar size as required for spans indicated.

2. Guardrail Grating

- a. Type 19-W-4 Welded Bar Grating, Galvanized Hot Dipped, Smooth.
- b. Bar size as required for spans indicated.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 055313

SECTION 057310 – TEMPERED GLASS RAILING SYSTEM

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. REFERENCES

- A. ASTM C 1048 – Standard Specification for Heat Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass
- B. NAAMM Metal Finishes Manual; National Association of Architectural Metal Manufacturers
- C. AAMA CW-12-84 Structural Properties of Glass
- D. ASTM E 2358-04 Standard specification for the Performance of Glass in Permanent Glass Railing Systems, Guards and Balustrades.

1.3. Submittals

- A. Product Data: Submit Manufacturer’s technical product data for railing components and accessories.
- B. Shop Drawings: Dimensioned drawings of railing assemblies indicating the following:
 - 1. Elevations; include joint locations, transitions, and terminations.
 - 2. Glass light fabrication plans with dimensions, holes and finishes.
 - 3. Point support layout, details and attachment to support structure.
 - 4. Manufacturer’s installation and maintenance instructions.
- C. Engineering Design Report: Calculations showing point support reactions and glass stresses.
- D. Samples of manufacturer’s finishes (As selected by Architect.)

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. Acceptable Manufacturer: C.R. Laurence Co., Inc. (CRL)
 - 1. Tel: (800) 421-6144 Fax: (800) 587-7501
 - 2. Email: railings@crlaurence.com
 - 3. www.crlaurence.com

2.2. MATERIALS

- A. Basis of Design is FSC Frameless Glass Clamp Railing System.
- B. Stainless Steel Components: Conforming to ASCE 8-02, Specification for the Design of Cold-Formed Stainless Steel Structural Members.
- C. Glass Components: Conforming to GANA Glazing Manual, Tempered Glass Engineering Standards Manual and Laminated Glazing Reference Manual.

2.3. COMPONENTS

- A. Glazing: Fully tempered conforming to the specifications of ANSI Z97.1, ASTM C 1048-97b and CPSC 16CFR 1201. In accordance with UBC 2406.6 or IBC 2407.1.1 glass used as structural balustrade panels shall be designed for a safety factor of 4.0. This is applicable only to structural panels (glass provides support to railing). Other locations the glass stress may be increased by 33% (SF=3.0) for glass infill panels. Glass not used in guardrails may be designed for a safety factor of 2.5 in accordance with ASTM E1300-00.
 - 1. Thickness: Minimum 1/2 inch (12 mm).
 - 2. Color: Clear
 - 3. Edge: Flat Polished
- B. Brackets (where indicated): AFWC2 Brushed Stainless – 316 S.S.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 057310

SECTION 061000 – ROUGH CARPENTRY

PART 1 – GENERAL

1.1. Structural Documents

A. Refer to Structural Drawings and Specifications for any requirements related to

1. Structural dimension lumber framing.
2. Roof Sheathing.
3. Subflooring.
4. Underlayment.
5. Wall sheathing.

PART 2 – PRODUCTS

2.1. Dimension Lumber

- A. Comply with PS 20 and requirements of specified grading agencies.
- B. Species: Douglas Fir-Larch, unless otherwise indicated.
- C. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
- D. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

PART 3 – EXECUTION

3.1. Blocking

- A. Continuous dimension wood blocking shall be installed behind all components which are attached to walls or ceilings.
- B. Attached components include, but are not limited to:
 1. Cabinets
 2. Bathroom accessories
 3. Door stops
 4. Suspended ceiling components
- C. Provide solid blocking on all swinging entry doors at lock height, between jambs and structural framing.
- D. Blocking shall be no less than nominal 2 x 4, and shall be firmly attached to adjacent studs, joists, or trusses.

END OF SECTION 061000

SECTION 061500 – WOOD DECKING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Three-foot long sample of proposed decking board material.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - a. Storage and handling requirements and recommendations.
 - b. Installation methods.

1.3. Mockup

- A. Contractor shall provide a mockup of the proposed deck installation in a location where it shall be installed on the project.
- B. Mockup shall be no less than 4' x 4'.
- C. Mock up shall use method of deck board attachment.

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Palletized Wood Deck

- A. Manufacturer: Bison Innovative Products; 2395 West 4th Avenue, Denver, CO 80223.
 - 1. Toll Free 800-333-4234. Phone 303-892-0400. Fax 303-825-5988.
 - 2. Email: Sales@BisonIP.com. Web: www.BisonIP.com
- B. Model: WT-IPE-48
- C. Dimensions: 23 7/8" x 47 7/8" x 1.69" nominal
- D. Weight per tile: 48 lbs. Weight per square foot: 6 lbs.
- E. Fire Rating: Class A – meets & exceeds ASTM E108-07a Spread of Flame Test

F. Color: Reddish Brown

G. Surface: Ribbed

2.2. Pedestals

A. Manufacturer: Bison Innovative Products; 2395 West 4th Avenue, Denver, CO 80223.

1. Toll Free 800-333-4234. Phone 303-892-0400. Fax 303-825-5988.

2. Email: Sales@BisonIP.com. Web: www.BisonIP.com

B. Model: Versadjust, adjustable V-Series line

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 061500

SECTION 062000 – FINISH CARPENTRY

PART 1 – GENERAL

1.1. Basis of Design

- A. All standards, manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. References

- A. Western Wood Products Association (WWPA)
 - 1. 1500 SW First Ave., Suite 870, Portland, OR 97201; Phone: 503-224-3930; Fax: 503-224-3935; E-mail: info@wwpa.org

1.3. Submittals

- A. Samples of all instances of wood trim, baseboard, door jamb, and molding products used.

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. INTERIOR TRIM, BASEBOARDS AND DOOR FRAMES

- A. Species: Eastern white, Idaho white, Lodgepole, Ponderosa, Radiata, or Sugar Pine.
- B. Grade: C&Btr, or equivalent approved by Architect
- C. Maximum Moisture Content: 15 percent

2.2. Baseboard at recessed toe/kick spaces in 2500SF kitchen:

- A. Cedar to match cedar-fronted cabinets, as shown.

PART 3 – EXECUTION

3.1. EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

3.2. INSTALLATION, GENERAL

- A. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
- B. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch (1 mm). Do not use additional overlay trim to conceal larger gaps.
- C. Countersink fasteners, fill surface flush, and sand unless otherwise indicated.
- D. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining interior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.

3.4. STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available.
- B. Miter at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint.
- C. Use scarf joints for end-to-end joints.

3.5. PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.

3.6. TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch (1.5 mm).
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch (0.7 mm).

END OF SECTION 062000

SECTION 064100 – ARCHITECTURAL WOOD CASEWORK

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. References

- A. Architectural Woodwork Institute (AWI)
 - 1. 46179 Westlake Drive, Suite 120, Potomac Falls, VA 20165
Phone: 571-323-3636 Fax: 571-323-3630

1.3. Submittals

- A. Shop Drawings:
 - 1. Indicate construction details of all architectural woodwork and millwork and general arrangements; dimensions, typical and special installation conditions; materials being supplied and all connections, attachments, anchorage and location of exposed fastenings, grain direction of veneer, as applicable.
 - 2. Incorporate plans, elevations, sections, and details for all casework in scale. The details shall show all thicknesses, types and finishes and all cabinet hardware.
- B. Samples:
 - 1. Submit duplicate color samples of laminated plastic, stone, architectural plastics and glazing for color selection.
 - 2. Submit duplicate samples of panels and solid lumber, complete with final finish, for Architect review.
 - 3. When requested by the Architect, submit one sample of each hardware item requested.
 - 4. No work shall be fabricated until the shop drawings have been reviewed and all related submittals and samples as required by the specification have been approved by the Architect.

1.4. Mock-up

- A. Shop prepare typical components representative of base and wall casework as directed by the Architect.
- B. Allow adequate time for inspection of mock-up by Architect before proceeding with this work.

- C. When accepted, mock-up will demonstrate minimum standard for this work. Mock-up may remain as part of finished work.

1.5. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Grade:

- A. All Architectural Wood Casework shall conform to AWI Custom Grade

2.2. PANEL PRODUCTS

- A. MDF (Medium Density Fiberboard): to ANSI A208.2-02; Grade MD, thickness as indicated, urea-formaldehyde free.
- B. Hardwood Plywood: Uniform White Birch or Uniform White Maple, A WMAC Grade A face, plain sliced book matched, Good Two Sides (G2S) or Sanded Two Sides where faces are exposed or semi-exposed, Good One Side (G 1 S) if one face concealed.
- A. Hardboard: to ANSI A135.4, Class 1 (tempered), urea-formaldehyde free.

2.3. LUMBER PRODUCTS

- A. Hardwood Lumber: AWI Custom grade; Hard Maple or White Birch species, maximum moisture content of 11 percent; with plain sawn grain, of quality suitable for transparent finish.

2.4. COUNTER TOPS

- A. Quartz Countertops:
 - 1. Caesar stone 3141
 - 2. Caesarstone 4004, at 2500SF Kitchen and Island.
- B. Stainless Steel Sheet:
 - 1. Type 304, No.4 finish, minimum 0.078 inch thickness (14 gauge) steel sheet.
 - 2. Fold and miter external comers. Weld, grind and sand smooth.

2.5. FABRICATION- GENERAL

- A. When necessary to cut and fit on site, provide materials with ample allowance for cutting.
- B. Provide trip for scribing and site cutting.
- C. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes, and other fixtures and fittings.
- D. Natural and manufacturing defects in excess of those permitted in the grade specified are permitted if such defects are to be covered by adjoining members or otherwise concealed.

- E. Carefully fit equipment to be installed. Provide filler pieces when required.
- F. Set nails and countersink screws, apply color matched wood filler to indentations, sand smooth and leave ready to receive finish.
- G. Shop install cabinet hardware for doors, shelves and drawers.
- H. Recess shelf standards leaving 2 mm above surface of panel.

2.6. FABRICATION - CUSTOM CABINET UNITS

- A. General Construction: Flush overlay, concealing cabinet case body.
- B. Thickness: Thickness for panels identified on Drawings shall govern if in excess of AWI grade.
- C. Case Body:
 - 1. Exposed Ends: Not less than nominal 3/4" (19 mm) thick plywood.
 - 2. Unexposed Ends: Not less than nominal 5/8" (15.9 mm) thick plywood
 - 3. Tops and Bottoms: Not less than nominal 3/4" (19 mm) thick plywood fully supported and secured in rabbets in panels.
 - 4. Backs: Not less than nominal 1/2" (12.7 mm) thick plywood fastened to machined rear edge of ends, top and bottom case partitions.
 - 5. Finish: Lacquer- Postcatalyzed; color and sheen selection by Architect.
- D. Doors and Applied Drawer Fronts:
 - 1. Panel: Not less than nominal 3/4" (19 mm) thick plywood.
 - 2. Finish: Lacquer- Postcatalyzed; color and sheen selection by Architect.
- E. Doors and Drawer Fronts for 2500SF kitchen:
 - 1. Vertical cedar shiplap on solid wood frame, as shown.
- F. Drawers: box-type construction with applied drawer fronts.
 - 1. Sides, Backs and Sub-fronts:
 - a. Nominal 1/2" (12.7 mm) birch plywood.
 - b. Sub-front and back rabbeted into sides and secured with glue and mechanical fasteners.
 - c. Fasten applied front to sub-front with mounting screws from interior of body.
 - d. Finish: Lacquer- Clear Postcatalyzed.
 - 2. Bottoms: Hardboard nominal 1/4" (6 mm) thickness. Set into rabbets in back, sides, and front.
- G. Shelving:
 - 1. Panel: plywood
 - 2. Thickness: nominal 3/4" (19 mm) thick for up to 36" unsupported length, nominal 1" (25 mm) thick for unsupported lengths between 36" and 42", unless otherwise indicated.
 - 3. Edgeband to match plywood.
 - 4. Finish: Lacquer- Postcatalyzed; color and sheen selection by Architect.

- H. Toe Kicks: Not less than nominal 3/4" (19 mm) plywood, full height of toe space, for applied hardwood or hard tile base.
- I. Comer Blocks: plywood; glued and fastened in each of four top comers to maintain cabinet squareness and rigidity.

2.7. HARDWARE AND COMPONENTS

- A. Type CH-1 Drawer Glide
 - 1. Manufacturer: Blum
 - 2. Series: Tandem
 - 3. Size: Varies - size to accommodate drawer
 - 4. Finish: Clear Metal
 - 5. Extent: Cabinet Drawers
- B. Type CH-2 Cabinet Door Hinge:
 - 1. Manufacturer: Blum
 - 2. Series: CLIP top
 - 3. Type: European Concealed Hinge
 - 4. Finish: Chrome
 - 5. Extent: Cabinet Doors
- C. Type CH-3 Cabinet Knob:
 - 1. Manufacturer: Richelieu
 - 2. Series: Brass Finger Pull
 - 3. Finish: Stainless Steel
 - 4. Size: 7/8 inch width
 - 5. Extent: Cabinet Doors
- D. Type CH-4 Cabinet Pull:
 - 1. Manufacturer: Richelieu
 - 2. Series: Bar Pull
 - 3. Finish: Stainless Steel
 - 4. Size: 8", 12", 16"
 - 5. Extent: Cabinet Doors
- E. Cam Locks: chrome-plated cam locks, with keeper, latch length to suit application, keyed alike in each room but different between rooms, for panel thicknesses indicated. Provide keys in duplicate for each lock.
- F. Shelving Standards: Adjustable, recessed, steel with white finish, length as required with heavy duty metal shelf clips (4 per shelf).
- G. Furring, Blocking, Shims, and Hanging Strips: plywood.

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations
 - A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.
- 3.2. Field Measurements:

- A. Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

3.3. INSTALLATION

- A. Install cabinets with no variations in flushness of adjoining surfaces; use concealed shims. Where cabinets abut other finished work, scribe and cut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match cabinet face.
- B. Install cabinets without distortion so doors and drawers fit the openings, are aligned, and are uniformly spaced. Complete installation of hardware and accessories as indicated.
- C. Install cabinets level and plumb to a tolerance of 1/8 inch in 8 feet.
- D. Fasten cabinets to adjacent units and to backing.
- E. Revise requirements in subparagraph below as necessary for seismic restraint of cabinets. Delete below if hanging cleats are used and are detailed on Drawings.
- F. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch penetration into wood framing, blocking, or hanging strips.

END OF SECTION 064100

SECTION 064313 – WOOD STAIRS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Wood sample material
 - 1. Minimum two pieces each approximately 12” x 24” for treads and risers.
- B. Shop drawings, showing all materials and details

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Treads

- A. 5/4 Douglas Fir, full 1” thickness
- B. Grade: Clear Vertical Grain (CVG), C & Better Grade, as graded by the American Lumber Standard Committee

2.2. Risers

- A. Nominal ½” thickness minimum
- B. Veneer: Fir, Douglas-Quartered, Vertical Grain Veneer.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers’ recommendations.

END OF SECTION 064313

SECTION 071800 – TRAFFIC COATINGS

PART 1 – GENERAL

- 1.1. Included in this section
 - A. Low Slope Roofing Membrane, installed under Wood Decking.
- 1.2. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.3. Submittals
 - A. Product Data: For each type of product, including installation instructions.
 - B. Shop Drawings: For traffic coatings.
 - 1. Include details for treating substrate joints and cracks, flashings, deck penetrations, and other termination conditions.
 - C. Samples for Initial Selection.
 - D. Samples for Verification, prepared on rigid backing.
 - E. Sample Warranty: For special warranty.
- 1.4. Color.
 - A. As selected by Architect from full range of manufacturer’s colors.
- 1.5. Mockup
 - A. Build mockup for each traffic coating and substrate to receive traffic coatings.
 - B. Size: 150 sq. ft. of each substrate to demonstrate surface preparation, joint and crack treatment, thickness, texture, color, and standard of workmanship.
 - C. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - D. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- 1.6. Guarantee / Warrantee
 - A. Five years from date of Substantial Completion
- 1.7. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. Gaco Western, 200 West Mercer Street, Suite #202, Seattle, WA 98119, (800) 331-0196.
- B. Tremco Incorporated, 3735 South Green Road, Beachwood, OH 44122, (800) 852-8173

2.2. PRODUCTS

- A. Gaco Gacoflex U-66 Liquid Polyurethane Coating
- B. Tremco Vulkem OC 810

2.3. Primers and accessories

- A. As manufactured by or recommended by Traffic Membrane manufacturer

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 071800

SECTION 072113.13 – FOAM BOARD INSULATION

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product data

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturers

- A. Owens Corning, 1 Owens Corning Pkwy, Toledo, OH 43659; Phone: (419) 248-8000

2.2. Extruded Polystyrene Board

- A. Owens Corning Formular 150 or Formular 250
- B. Thicknesses as indicated.

2.3. Joint Tape

- A. Owens Corning HomeSealR.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.
- B. Panel seams shall not be taped for this project.

END OF SECTION 072113.13

SECTION 072119 – FOAMED-IN-PLACE INSULATION

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Vapor Retarder Requirements.

- A. Product shall comply with local regulatory requirements for vapor retarder performance.
- B. Regardless of regulatory requirements, insulation shall meet the performance requirement for a Class II vapor retarder.

1.3. Submittals

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Vapor retarder compliance.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods.
- B. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- C. Vapor Retarder Requirements.
 - 1. Submittal is required to demonstrate compliance with local regulatory requirements for vapor retarder, as well as product vapor retarder performance.
 - 2. Regardless of regulatory requirements, insulation shall meet the performance requirement for a Class II vapor retarder

1.4. Mock-Up:

- A. 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 is approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.5. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate

the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. CertainTeed Corp., Insulation Group, 750 E. Swedesford Rd. P. O. Box 860; Valley Forge, PA 19482-0860; Toll Free Tel: 800-233-8990; Fax: 610-341-7940, or
- B. Johns Manville, P. O. Box 5108, Denver, CO 80217-5108; Phone: 303.978.2000

2.2. INSULATION

- A. CertainTeed
 - 1. HFC-blown type Closed Cell Foam: CertainTeed CertaSpray Closed Cell Foam
- B. Johns Manville
 - 1. JM Corbond MCS™

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

3.2. R-Value

- A. Apply to achieve R-Values indicated or minimum required by applicable codes, whichever is greater.

END OF SECTION 072119

SECTION 072500 – WEATHER BARRIERS

PART 1 – GENERAL

- 1.1. Section Includes:
 - A. Weather barrier membrane
 - B. Seam Tape
 - C. Membrane Flashing
 - D. Fasteners
- 1.2. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.3. Submittals
 - A. Product Data: Submit manufacturer current technical literature for each component.
 - B. Samples:
 - 1. Weather Barrier membrane, minimum 8-1/2 inches by 11 inch.
 - 2. Flashing, minimum 11 inch length for each type used.
 - C. Quality Assurance Submittals
 - 1. Manufacturer Instructions: Provide manufacturer’s written installation instructions.
- 1.4. Guarantee / Warranty
- 1.5. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturer
 - A. DuPont; 4417 Lancaster Pike, Chestnut Run Plaza 728, Wilmington, DE 19805; 1-800-44-TYVEK (8-9835); <http://www.construction.tyvek.com>
- 2.2. Materials
 - A. Weather barrier membrane

1. Spunbonded polyolefin, non-woven, non-perforated, weather barrier is based upon DuPont™ Tyvek® DrainWrap™ and related assembly components.
- 2.3. Accessories
 - A. Seam Tape: 3 inch wide, DuPont™ Tyvek® Tape.
 - B. Fasteners: Tyvek® Wrap Cap staples, or 1-inch plastic cap staples with leg length sufficient to achieve a minimum penetration of 5/8-inch into the wood stud.
 - C. Sealants, adhesives, and primers: As recommended by weather barrier manufacturer.
 - 2.4. Flashing
 - A. DuPont™ FlexWrap™, as manufactured by DuPont Building Innovations: flexible membrane flashing materials for window openings and penetrations. AND/OR
 - B. DuPont™ FlexWrap™ NF, as manufactured by DuPont Building Innovations: flexible membrane flashing materials for window openings and penetrations. AND/OR
 - C. DuPont™ StraightFlash™, as manufactured by DuPont Building Innovations: straight flashing membrane materials for flashing windows and doors and sealing penetrations and masonry ties, etc.

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations
 - A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 072500

SECTION 073010 – ROOFING UNDERLAYMENT

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Underlayment below cedar shingle roofing.
- 1.2. Related Sections
 - A. 073129.13 - WOOD SHINGLES
 - B. 075000 - MEMBRANE ROOFING
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. Submittals
 - A. Product Data: Submit manufacturer's product data and installation instructions.
- 1.5. Guarantee / Warranty
 - A. Manufacturer's standard warranty.
- 1.6. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. MANUFACTURER
 - A. GCP Applied Technologies, Inc., 62 Whittemore Avenue, Cambridge, MA 02140, Toll Free 866-333-3726, www.gcpat.com.
- 2.2. Materials
 - A. Self-Adhering Sheet Membrane Roof Underlayment, Grace Ice and Water Shield by GCP Applied Technologies, Inc.

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 073010

SECTION 073129.13 – WOOD SHINGLES

PART 1 – GENERAL

1.1. Related Sections

- A. 073010 – Roofing Underlayment
- B. 075000 – Membrane Roofing

1.2. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.3. Reference

A. U.S. Address

- 1. Cedar Shake and Shingle Bureau
P.O. Box 1178
Sumas, WA 98295-1178

B. Canadian Address

- 1. Cedar Shake and Shingle Bureau
#2 - 7101 Horne Street
Mission, BC V2V 7A2
Telephone: (604) 820-7700
Facsimile: (604) 820-0266
E-mail: info@cedarbureau.com

1.4. Submittals

- A. Product data for all materials used, wood and fasteners.
- B. Sample shingles. Minimum six pieces.
- C. Sample fasteners.

1.5. Mock-up

- A. The Contractor shall mockup a portion of the roof installation in a location which can be readily inspected.
- B. Select roof area which includes snow guards, to include snow guards in mockup.
- C. The size of the mockup shall be minimum 8'-0" x 8'-0".
- D. After corrections directed by the Architect, the mockup shall remain in place.

1.6. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. WOOD SHAKES

- A. Certigrade Red Cedar Shingles
 - 1. As certified by the Cedar Shake & Shingle Bureau.
 - 2. Number 1 Blue Label.
 - 3. Certi-Guard Class B Fire-Retardant Treated.
 - 4. 18" Length
 - 5. 4" Width

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations and the Cedar Shake & Shingle Bureau
- B. Electro galvanized staples or nails shall not be used.
- C. Exposure
 - 1. 4" Exposure

END OF SECTION 073129.13

SECTION 074223 – WOOD WALL PANELING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. References

- A. Western Red Cedar Lumber Association (WRCLA)
 - 1. 1501-700 West Pender Street, Pender Place 1, Business Building
Vancouver, British Columbia V6C 1G8
Canada
- B. National lumber Grades Authority (NLGA)
- C. West Coast Lumber Inspection Bureau (WCLIB)
- D. Western Wood Products Association (WWPA)

1.3. Submittals

- A. Product data for all materials used, wood and fasteners.
- B. Sample boards of each configuration used. Minimum two pieces 2'-0" long of each configuration
- C. Sample fasteners.

1.4. Mock-up

- A. For each different type of wall paneling installation, the Contractor shall mockup a portion of the installation in the locations intended.
- B. The size of the mockup shall be minimum 8'-0" x 8'-0".
- C. After corrections directed by the Architect, the mockup shall remain in place.

1.5. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. CEDAR WALL PANELING – EXTERIOR AND INTERIOR

- A. Species: Thuja Plicata
- B. WRCLA Custom Grade, kiln dried.
- C. Surfaces exposed to view to be smooth.
- D. Sizes and configurations as shown and detailed.

2.2. Fasteners

- A. Stainless steel ring shank nails or screws, as approved by the Architect.
- B. Electro galvanized staples or nails shall not be used.

PART 3 – EXECUTION

3.1. Prestaining

- A. Exterior material shall be stained on all 6 surfaces prior to installation.

3.2. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 074223

SECTION 075000 – MEMBRANE ROOFING

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Roofing membrane below cedar shingle roofing.
- 1.2. Related Sections
 - A. 073129.13 – WOOD SHINGLES
 - B. 073010 – ROOFING UNDERLAYMENT
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. Submittals
 - A. Product Data: Submit manufacturer's product data and installation instructions.
- 1.5. Mock-up
 - A. Provide mock-up of completed application of Membrane Roofing in place, prior to the installation of any cedar roofing.
 - B. Mock-up shall be no less than 8'-0" x 8'-0"
 - C. Subject to approval by the Architect, the mock-up may remain as part of final construction
- 1.6. Guarantee / Warranty
 - A. Manufacturer's standard 12 year warranty.
- 1.7. Regulatory Requirements
 - A. Roofing installation shall be accepted by the local Building Official as a “Class A” roof.
- 1.8. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturer

A. GAF, 1361 Alps Road, Wayne, NJ 07470

2.2. Product

A. GAFGLAS Mineral-Surfaced Cap Sheet, UL Class A

PART 3 – EXECUTION

3.1. Installation

A. Product is applied on sloped roof assembly on top of Roofing Underlayment, and below cedar shingle roofing.

B. Roofing installer shall indicate intended method of application for approval by the Architect and Local Building Official prior to proceeding with Mock-up.

3.2. Manufacturers Recommendations

A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 075000

SECTION 075323 – ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Roofing for unprotected low slope roof locations.
- 1.2. Application
 - A. All low slope unprotected roofs without additional roofing products applied on top.
 - B. Not required for Cabin 1500.
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. PERFORMANCE REQUIREMENTS
 - A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
 - B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- 1.5. Submittals
 - A. Product Data: For each type of product indicated.
 - B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Base flashings and membrane terminations.
 - C. Sheet roofing, including T-shaped side and end lap seam.
 - D. Six roof cover fasteners of each type, length, and finish.
- 1.6. Guarantee / Warranty
 - A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.

1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, roofing accessories, roof pavers, and other components of membrane roofing system.
 2. Warranty Period: 20 years from date of owner acceptance.
- 1.7. Fire Class:
- A. Comply with Underwriters Laboratories UL 790 classification Class A.
- 1.8. Underlying Construction
- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. EPDM MEMBRANE ROOFING

- A. EPDM: ASTM D 4637, Type II, scrim or fabric internally reinforced, uniform, flexible EPDM sheet.
 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Carlisle SynTec Incorporated.
 - b. ERSystems.
 - c. Firestone Building Products.
 - d. GAF Materials Corporation.
 - e. GenFlex Roofing Systems.
 - f. International Diamond Systems.
 - g. Johns Manville.
 - h. Mule-Hide Products Co., Inc.
 - i. Protective Coatings, Inc.
 - j. Roofing Products International, Inc.
 - k. StaFast Building Products.
 - l. Versico Incorporated.
 2. Thickness: 60 mils (1.5 mm), nominal.
 3. Minimum Class B roof Assembly.

2.2. AUXILIARY MEMBRANE ROOFING MATERIALS

- A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
 2. Adhesives and sealants that are not on the exterior side of weather barrier shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - a. Plastic Foam Adhesives: 50 g/L.

- b. Gypsum Board and Panel Adhesives: 50 g/L.
 - c. Multipurpose Construction Adhesives: 70 g/L.
 - d. Fiberglass Adhesives: 80 g/L.
 - e. Single-Ply Roof Membrane Adhesives: 250 g/L.
 - f. Single-Ply Roof Membrane Sealants: 450 g/L.
 - g. Nonmembrane Roof Sealants: 300 g/L.
 - h. Sealant Primers for Nonporous Substrates: 250 g/L.
 - i. Sealant Primers for Porous Substrates: 775 g/L.
 - j. Other Adhesives and Sealants: 250 g/L.
- B. Sheet Flashing: 60-mil- (1.5-mm-) thick EPDM, partially cured or cured, according to application.
 - C. Bonding Adhesive: Manufacturer's standard.
 - D. Seaming Material: Manufacturer's standard, synthetic-rubber polymer primer and 3-inch- (75-mm-) wide minimum, butyl splice tape with release film.
 - E. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
 - F. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
 - G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening membrane to substrate, and acceptable to roofing system manufacturer.
 - H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

2.3. Color:

- A. As selected by Architect from full range of manufacturer's colors.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 075323

SECTION 076200 – SHEET METAL FLASHING AND TRIM

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each material and finish specified.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
- D. Temperature Change: 120 deg. F, ambient; 180 deg. F, material surfaces.

2.2. FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions,

geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.

- B. Precautions shall be taken to avoid contact between dissimilar metals. Adhere to performance requirements above for proper isolation techniques.
- C. Obtain field measurements for accurate fit before shop fabrication.
- D. Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
- E. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- F. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
- G. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
- H. Use lapped expansion joints only where indicated on Drawings.
- I. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- J. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- K. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.
- L. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with sealant unless otherwise recommended by sealant manufacturer for intended use.

2.3. SHEET MATERIALS

- A. Anodized Aluminum, where indicated:
 - 1. 0.063 (16 mm) thick anodized finish
 - 2. Color as selected by Architect
- B. Steel
 - 1. 24 gauge aluminized or galvanized steel sheet
 - 2. Precoated with Kynar 500 fluoropolymer resin.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

3.2. INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners,

solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Secure flashings in place using concealed fasteners. Use exposed fasteners only where approved by Architect.
 2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 3. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 4. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 5. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

END OF SECTION 076200

SECTION 077253 – SNOW GUARDS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Shop Drawings: Show locations of snow guards on roof and attachment spacing.
- B. Product Data: Include manufacturer's product data sheets on each product to be used and installation instructions.
- C. Samples:
 - 1. Snow Bracket sample.
 - 2. Color chips showing available colors.

1.3. Mockup

- A. Install snow guards in mockup of cedar shingle roofing.

1.4. WARRANTIES

- A. Furnish manufacturer's 20 year material components replacement warranty including shipping, covering failed components that do not meet or exceed engineered design loads.

1.5. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturer

- A. TRA Snow and Sun, 1657 South 580 East, American Fork, UT 84003, 800-606-8980, 801-756-8666, Fax 801-756-7891, info@trasnowandsun.com, www.trasnowandsun.com.

2.2. Product

- A. Snow Bracket F
 - 1. Material: 18 ga. stainless steel

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.
- B. Install with (4) #8 stainless steel screws at each snow bracket.

END OF SECTION 077253

SECTION 079005 – JOINT SEALANTS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.
- D. Mockups for all locations where sealants are installed against porous materials, including granite.

1.3. WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: 25 years from date of Substantial Completion.
- B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 - 1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 - 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 - 3. Mechanical damage caused by individuals, tools, or other outside agents.
 - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

- C. Contractor's performance: Two years.
- 1.4. Underlying Construction
- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MATERIALS, GENERAL

- A. **Compatibility:** Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. **Stain-Test-Response Characteristics:** Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. **Suitability for Contact with Food:** Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.
- D. **Colors of Exposed Joint Sealants:** As selected by Architect from manufacturer's full range.

2.2. EXTERIOR SEALANT

- A. Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.
 - 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Dow Corning Corporation; 790.
 - b. GE Advanced Materials - Silicones; SilPruf LM SCS2700.
 - c. Pecora Corporation; 890.
 - d. Tremco Incorporated; Spectrem 1.

2.3. JOINT SEALANT BACKING

- A. **General:** Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. **Cylindrical Sealant Backings:** ASTM C 1330, Type C (closed-cell material with a surface skin), Type B (bicellular material with a surface skin), or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance. Backer rod shall be non-gassing. Diameter shall be 25% in excess of the joint width.

- C. Bond Breaker Tape: 0.006 in. thick polyethylene tape to which sealant does not bond, adhesive backed on one side, width as required.

2.4. INTERIOR SEALANT

- A. Mildew-Resistant, Single-Component, Nonsag, Acid-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
 - 1. Basis of Design Product: Dow Corning Corporation, 786 Silicone Sealant.
 - 2. Color: As selected by Architect from manufacturer's standard colors.

2.5. MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

3.2. Backer Rod

1. Use backer rod or bond breaker tape to avoid three-sided adhesion
2. For typical butt sealant joints, place the backer rod or bond breaker tape so that the sealant depth measured at the center of the joint after tooling is one-half the sealant width, with a minimum depth of 1/4 in. and a maximum depth of 1/2 in.
3. At fillet (triangular) joints, extend the sealant at least 3/8 in. onto the substrate beyond the bond breaker tape or backer rod and at least 5/8 in. onto the substrate perpendicular to the tape or rod. The minimum thickness between the edge of the tape or rod and the surface of the sealant joint shall be at least 1/4 in.
4. Change rod sizes frequently, as required by the variation in joint width.
5. Do not rupture the skin of the closed-cell backer rod during installation, and do not cut the rod lengthwise as a substitute for smaller diameter rod.
6. Do not leave gaps between ends of sealant backings.
7. Do not stretch, twist, puncture, or tear sealant backings.
8. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

END OF SECTION 079005

SECTION 081400 – WOOD DOORS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: For each type of door. Include details of core and edge construction>
- B. Samples for Initial Selection.
- C. Samples for Verification:
 - 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches (200 by 250 mm), for each material and finish.
 - 2. For each wood species and transparent finish, provide set of three samples showing typical examples of color and grain to be expected in finished work.
 - 3. Provide construction samples of doors, approximately 5 by 5 inches (125 by 125 mm), with door faces and vertical edges representing actual construction to be used.
 - 4. Provide unfinished samples for each species of veneer and required if factory furnishing is not required, approximately 8 by 10 inches (200 by 250 mm).

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Marshfield DoorSystems, Inc. flush wood doors or a comparable product by one of the following:
 - 1. Algoma Hardwoods, Inc.
 - 2. Eggers Industries.
 - 3. Marshfield DoorSystems
 - 4. Masonite International Corporation

2.2. FLUSH WOOD DOORS, GENERAL

- A. Quality Standard: In addition to requirements specified, comply with WDMA I.S.1-A-11, "Architectural Wood Flush Doors."

2.3. BASIC MATERIALS

- A. Doors shall be fabricated using loose lay-up assembly that includes wood veneer hardboard facings, wood stiles, wood rails and particleboard core. Door facings are to be bonded to stiles, rails and core forming a 3-ply structural attachment.
- B. Hinge preparations for 1-3/4" thick doors to be machined to accept 4" hinges. Face bore(s) for cylindrical lock and deadbolt are to be 2-1/8" diameter at 2-3/4" or 2-3/8" backset.
- C. Vertical edge of door to be square, beveled both sides or lock stile only. Edge preparation should be clearly noted when the product is ordered.

2.4. VENER-FACED DOORS FOR TRANSPARENT FINISH

- A. Veneer Grade: A.
- B. Species: Red Cedar.
- C. Cut: Plain sliced (flat sliced).
- D. Special Veneer Selection: Select veneers for match to adjacent wall paneling
- E. Exposed Vertical Edges: 1/8 inch (3.2 mm) high impact edge bonded to structural composite lumber, color or wood grain as selected from manufacturer's standard offering.

2.7. DOORS FOR OPAQUE FINISH

- A. Grade: Custom.
- B. Faces: Paint grade birch or equivalent as approved by Architect.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 081400

SECTION 083213 – SLIDING ALUMINUM-FRAMED GLASS DOORS

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Sliding aluminum doors
- 1.2. Related Sections
 - A. 088000 – Glazing
 - B. 084400 – Curtainwall and Glazed Assemblies
 - C. Door Hardware
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. Submittals
 - A. Shop Drawings
 - 1. Shop drawings will be prepared by the door manufacturer. Shop drawings prepared by door distributor, installer, representative/dealer of outside drafting firm are not acceptable.
 - 2. Show components complete with dimensions, material and details of anchoring and fastening.
 - 3. Show finishes, sealants and other information indicating compliance with specifications.
 - 4. Submit test report.
 - B. Samples
 - 1. Components: submit samples of anchors, fasteners, hardware, assembled corner sections and other materials and components if requested by architect.
 - 2. Finish: submit full range color samples for approval by architect.
 - C. Warranties: submit written copies
- 1.5. Guarantee / Warrantee
 - A. Five years
- 1.6. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturers Products

- A. As manufactured by Oldcastle BuildingEnvelope®, Terrell, TX.
- B. Sliding aluminum-framed glass doors: Oldcastle TerraSlide 60E – OX Slider.
- C. Finish: Clear anodized aluminum.
- D. Provide with insect screens.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 083213

SECTION 084113 – ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Storefront system
 - B. Operable windows within Storefront assembly
 - C. Aluminum entrance door
- 1.2. Related Sections
 - A. 088000 – Glazing
 - B. Door Hardware
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. Submittals
 - A. Product Data:
 - 1. Submit manufacturer's descriptive literature and product specifications.
 - 2. Include information for factory finishes, hardware, accessories, and other required components.
 - 3. Include color charts for finish indicating manufacturer's standard colors available for selection.
 - B. Shop Drawings:
 - 1. Submit shop drawings covering fabrication, installation and finish of specified systems.
 - 2. Include following:
 - a. Fully dimensioned plans and elevations with detail coordination keys.
 - b. Locations of exposed fasteners and joints.
 - 3. Provide detailed drawings of:
 - a. Composite members.
 - b. Joint connections for framing systems and for entrance doors.
 - c. Anchorage.
 - d. System reinforcements.

- e. System expansion and contraction provisions.
 - f. Glazing methods and accessories.
 - g. Internal sealant requirements.
4. Schedule of finishes.
- C. Samples:
- 1. Submit manufacturers standard samples indicating quality of finish.
 - 2. Where normal texture or color variations are expected, include additional samples illustrating range of variation.
 - 3. Submit samples for each type of glass, 12 x 12 inch size.
- D. Test Reports:
- 1. Standard Systems: Submit certified copies of previous test reports substantiating performance of system in lieu of retesting. Include other supportive data as necessary.
- E. Qualification Data:
- 1. Submit installer qualifications verifying years of experience.
- F. Manufacturer's Instructions: Submit manufacturer's printed installation instructions.
- 1.5. Guarantee / Warrantee
- A. Manufacturer's standard warranty
- 1.6. Underlying Construction
- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturers and Products
- A. As manufactured by Oldcastle BuildingEnvelope®, Terrell, TX.
 - B. Storefront Framing System:
 - 1. Flush Glazed System, center set, exterior loaded
 - 2. Oldcastle Series 3000 Thermal Multiplane - 2" x 4-1/2" mullion profile; which accommodates 1" glazing.
 - C. Operable windows within Storefront Assembly
 - 1. Oldcastle S-3375 Series, outswing and inswing as shown
 - 2. Provide with insect screens. Inswing casements to be equipped with operable screens.
 - D. Aluminum Entrance Door
 - 1. Standard duty systems 0.125" (3.17mm) wall thickness; 2-5/8" (66.67mm) deep.
 - 2. Model AD-375 - medium stile thermal 6" (152.4mm) bottom rail, 2-1/2" (63.5mm) top rail, 3-3/4" (95.25mm) verticals.

2.2. Finish

A. Clear Anodized:

1. Conforming to AA-M12C22A31 and AAMA 611.
2. Architectural Class II, etched, medium matte, clear anodic coating, 0.4 mil minimum thickness.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 084113

SECTION 084400 – CURTAINWALL AND GLAZED ASSEMBLIES

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Curtainwall assembly
 - B. Operable windows within Curtainwall assembly
- 1.2. Related Sections
 - A. 088000 – Glazing
 - B. 083213 – Sliding Aluminum-Framed Glass Doors.
 - C. Door Hardware
- 1.3. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.4. Submittals
 - A. Product Data:
 1. Submit manufacturer's descriptive literature and product specifications.
 2. Include information for factory finishes, hardware, accessories, and other required components.
 3. Include color charts for finish indicating manufacturer's standard colors available for selection.
 - B. Shop Drawings:
 1. Submit shop drawings covering fabrication, installation and finish of specified systems.
 2. Include following:
 - a. Fully dimensioned plans and elevations with detail coordination keys.
 - b. Locations of exposed fasteners and joints.
 3. Provide detailed drawings of:
 - a. Composite members.
 - b. Joint connections for framing systems and for entrance doors.
 - c. Anchorage.
 - d. System reinforcements.

- e. System expansion and contraction provisions.
 - f. Glazing methods and accessories.
 - g. Internal sealant requirements.
4. Schedule of finishes.
- C. Samples:
- 1. Submit manufacturers standard samples indicating quality of finish.
 - 2. Where normal texture or color variations are expected, include additional samples illustrating range of variation.
 - 3. Submit samples for each type of glass, 12 x 12 inch size.
- D. Test Reports:
- 1. Standard Systems: Submit certified copies of previous test reports substantiating performance of system in lieu of retesting. Include other supportive data as necessary.
- E. Qualification Data:
- 1. Submit installer qualifications verifying years of experience.
- F. Manufacturer's Instructions: Submit manufacturer's printed installation instructions.
- 1.5. Guarantee / Warrantee
- A. Manufacturer's standard warranty
- 1.6. Underlying Construction
- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturers Products
- A. As manufactured by Oldcastle BuildingEnvelope®, Terrell, TX.
- 2.2. Curtainwall Assembly
- A. Oldcastle Reliance – SS Series
- 2.3. Operable windows within Curtainwall Assembly
- A. Oldcastle Zero Sightline Series 30P.
 - B. Provide with insect screens.
- 2.4. Finish
- A. Clear Anodized aluminum

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 08400

SECTION 086300 – METAL-FRAMED SKYLIGHTS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Related Sections

- A. 088000 - Glazing

1.3. Submittals

A. Product Data:

- 1. Submit product data, including manufacturer's product literature for specified system. Include manufacturer's air and water resistance test reports showing compliance with requirements specified performance requirements. Test reports must show evidence that system experienced no uncontrolled water leakage after 150% positive and negative structural overload (ASTM E330) when system is retested in accordance with ASTM E331 at a static pressure of 15 psf (718 Pa). Include both published data and specific data prepared for this project.

B. Shop Drawings:

- 1. Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.
- 2. Submit shop drawings for approval prior to fabrication. Include detailed plans, elevations, details of framing members, glazing infill materials, sealants, fasteners, anchors and thicknesses and types of formed flashing and closures and relationship with adjacent materials. Indicate maximum horizontal and vertical forces at rafter anchors.

C. Calculations:

- 1. Submit stamped calculations certified by a Utah Professional Engineer for review prior to fabrication.

D. Samples: Submit selection and verification samples for finishes, colors and textures.

- 1. Aluminum Finish: Submit color charts or range samples for initial color selection. Submit finished sample of color selected for use on metal coupons.
- 2. Glazing Materials: Submit a verification sample, 12" square, of the specified glass, including any integral tints, coatings or decorative ceramic frit pattern as specified.

3. Submit standard sealant colors for selection and approval.
 - E. Quality Assurance Submittals: Submit the following:
 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 - F. Closeout Submittals: Submit the following:
 1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
 2. Warranty: Warranty documents specified herein.
- 1.4. Guarantee / Warrantee
- A. Skylight System Warranty:
 1. Provide written warranty signed by manufacturer, agreeing to repair or replace work which exhibits defects in materials or workmanship and guaranteeing weathertight and leak free performance for a period of five (5) years from the completion date of the installation. "Defects" are defined to include, but are not limited to, uncontrolled leakage of water, abnormal aging or deterioration.
 - B. Finish Warranty:
 1. Provide written warranty signed by manufacturer, agreeing to repair or replace work which exhibits defects in finish. A "defect" is defined as: abnormal aging or deterioration and failure to perform as required.
 2. Warranty Period for Anodized Finish: One (1) year from date of application for film integrity.
 - C. Glazing Infill Warranty:
 1. Provide written warranty signed by glass (or metal panel) fabricator agreeing to repair or replace glazing materials which exhibit defects in materials or workmanship. "Defects" are defined to include delamination, failure of the hermetically sealed airspace or deterioration of coatings.
 2. Warranty Period: Five (5) years from date of manufacture.
- 1.5. Underlying Construction
- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. METAL-FRAMED SKYLIGHTS

- A. Manufacturer: Oldcastle BuildingEnvelope® BMS-3000 Sloped Glazing System.
Address: 803 Airport Road, Terrell, Texas 75160; Telephone: (800) 527-4018, (972) 551-6400; Fax (972) 551-6420; Email: www.oldcastlebe.com.

2.2. Glazing

A. Insulating Glazed Units

1. Conform with AAMA Glass Design.
2. OB: 1/4" PPG Solarban® 70XL Low-E #2
3. AS: 1/2 inch (Air Fill)
4. IB: 1/4" Clear

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 086300

SECTION 087101 – SLIDING DOOR HARDWARE

PART 1 – GENERAL

- 1.1. Section Includes
 - A. Hardware for interior sliding door.
- 1.2. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.3. Submittals
 - A. Product Information
- 1.4. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturer
 - A. L.E. Johnson Products, Inc., 2100 Sterling Avenue, Elkhart, IN 46516 USA; Email: info@johnsonhardware.com
- 2.2. Bypass Sliding Door Hardware
 - A. 100SD Series Sliding Door Hardware
 - B. Track shall be full length, extending into door pocket(s), as required

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations
 - A. All products and materials shall be installed in strict accordance with manufacturers’ recommendations.

END OF SECTION 087101

SECTION 088000 – GLAZING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Compliance

- A. Comply with all requirements of Consumer Product Safety Commission (CPSC), including requirements for safety glazing.
- B. Comply with ANSI Z97.1, Standard - *Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test*, latest edition.
- C. American Society of the International Association for Testing and Materials (ASTM).
- D. U-Factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.

1.3. Submittals

- A. Product Data on Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
- B. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
- C. Samples: Submit two samples 12 x 12 inch (305 x 305 mm) in size of glass and plastic units, showing coloration and design.

1.4. Warranty

- A. Sealed Insulating Glass Units: Provide a five (5) year warranty to include coverage for seal failure, interpane dusting or misting, including replacement of failed units.

1.5. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. GLAZING TYPES

- A. All exterior glazing shall be Sealed Insulating Glass Units: Vision glazing, low-E.
 - 1. Manufacturer - Basis of Design
 - a. Oldcastle BuildingEnvelope®, Terrell, TX. Application(s): All exterior glazing unless otherwise indicated.
 - 2. Insulating Glass Unit characteristics:
 - a. OB: 1/4" PPG Solarban® 70XL Low-E #2
 - b. AS: 1/2 inch (Air Fill)
 - c. IB: 1/4" Clear
- B. All interior glazing shall be single thickness clear glass of thickness and type required to achieve compliance standards.

2.2. EXTERIOR GLAZING ASSEMBLIES

- A. Structural Design Criteria: Select type and thickness to withstand dead loads and wind loads acting normal to plane of glass at design pressures calculated in accordance with CPSC and applicable building code.
 - 1. Use the procedure specified in applicable ASTM standards to determine glass type and thickness.
 - 2. Limit glass deflection to 1/200 or flexure limit of glass, whichever is less, with full recovery of glazing materials.
 - 3. Thicknesses listed are minimum.
- B. Air and Vapor Seals: Provide completed assemblies that maintain continuity of building enclosure vapor retarder and air barrier:
 - 1. In conjunction with vapor retarder and joint sealer materials described in other sections.
 - 2. To maintain a continuous air barrier and vapor retarder throughout the glazed assembly from glass pane to heel bead of glazing sealant.

2.3. SEALED INSULATING GLASS UNITS

- A. Sealed Insulating Glass Units: Types as indicated.
 - 1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
 - 2. Edge Spacers: Aluminum, bent and soldered corners.
 - 3. Edge Seal: Glass to elastomer with supplementary silicone sealant.

2.4. MIRRORS

- A. Mirrors adhered to wall surfaces with manufacturer's recommended mastic material shall be minimum nominal 1/4" thickness.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION GLAZING

SECTION 092116 – GYPSUM BOARD ASSEMBLIES

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: For each type of product.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

2.2. INTERIOR GYPSUM BOARD

- A. Gypsum Wallboard: ASTM C 1396/C 1396M.
 - 1. Thickness: minimum 1/2 inch, or as indicated.
 - 2. Long Edges: Tapered.
- B. Gypsum Board, Type X: ASTM C 1396/C 1396M.
 - 1. Location: Where indicated
 - 2. Thickness: 5/8 inch.
 - 3. Long Edges: Tapered.
- C. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.
 - 1. Use for all wall and ceiling surfaces in bathrooms or other rooms where humid environment is likely.
 - 2. Core: As indicated.
 - 3. Long Edges: Tapered.

4. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- 2.3. EXTERIOR GYPSUM BOARD SHEATHING
- A. Glass-Mat Gypsum Sheathing Board: ASTM C 1177/C 1177M, with fiberglass mat laminated to both sides and with manufacturer's standard edges.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Georgia-Pacific Gypsum LLC; Dens-Glass Gold.
 - b. USG Corporation; Securock Glass Mat Sheathing.
 2. Core: As indicated.
- 2.4. TRIM ACCESSORIES
- A. Vinyl trim accessories as manufactured by the following:
 1. Trim-Tex Inc., 3700 W. Pratt Ave.; Lincolnwood, IL 60712-2508; Toll Free Tel: 800-874-2333; Tel: 847-679-3000; Fax: 800-644-0216; Email: request info (mikeg@trim-tex.com); Web: www.trim-tex.com, or
 2. Vinyl Corp., 8000 NW 79th Place; Miami, FL 33166; Tel.: 1-800-648-4695 • 305-477-6464; Fax: 305-477-4108 • Toll Free Fax: 1-888-846-9583
- 2.5. JOINT TREATMENT MATERIALS
- A. General: Comply with ASTM C 475/C 475M.
 - B. Joint Tape:
 1. Interior Gypsum Board: Paper.
 2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
 - C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations
 - A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.
- 3.2. Vinyl trims and reveals shall be as detailed.
- 3.3. Finish Level
 - A. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

END OF SECTION 092116

SECTION 092813 – CEMENTITIOUS BACKING BOARDS

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: Submit manufacturer’s current technical literature.

1.3. Guarantee / Warranty

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Cementitious Backing Boards, acceptable products

- A. DUROCK Brand Cement Board by United States Gypsum Company
- B. WonderBoard Lite Backerboard by Custom Building Products
- C. HardieBacker 500 by James Hardie Technology Limited
- D. Thickness: Nominal ½”

2.2. Fasteners as recommended by backing board manufacturer

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers’ recommendations.

END OF SECTION 092813

SECTION 093013 – CERAMIC TILING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. References

- A. Tile Council of North America (TCNA).

1.3. Submittals

- A. Product Data for all materials used
- B. Samples of all materials used.

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

A. WATERPROOFING MEMBRANE

- 1. Schluter Systems, L.P., 194 Pleasant Ridge Road, Plattsburgh, NY 12901-5841. Tel.: (800) 472-4588. Fax: (800) 477-9783. E-mail: specassist@schluter.com. Internet: www.schluter.com.

B. CERAMIC TILE

- 1. Ciot US, 1080 Coolidge Highway, Troy, Michigan; Phone 248-288-8888

2.2. STANDARDS

- A. All ceramic tile work shall comply with recommendations of the TCNA Handbook for Ceramic, Glass, and Stone Tile Installation, latest edition.

2.3. WATERPROOFING MEMBRANE

- A. Schluter®-KERDI

1. Description: 0.008" (8 mil) thick, orange polyethylene membrane, with polypropylene fleece laminated on both sides, which meets or exceeds the requirements of the "American national standard specifications for load bearing, bonded, waterproof membranes for thin-set ceramic tile and dimension stone installation A118.10," and is listed by cUPC®, and is evaluated by ICC-ES (see Report No. ESR-2467 and PMG 1204).
2. Waterproofing seaming membrane:
 - a. Provide Schluter®-KERDI-BAND Seams and Corners material 0.004" (4 mil) thick, orange polyethylene membrane, with polypropylene fleece laminated on both sides.
3. Waterproofing Accessories:
 - a. Provide Schluter®-KERD-SEAL Mixing Valve seals
 - b. Provide Schluter®-KERD-SEAL pipe seals

2.4. Ceramic Tile

- A. Ciot Fior Di Latte Matte #4700

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 093013

SECTION 098100 – ACOUSTIC INSULATION

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: Submit Owens-Corning product literature, samples and installation instructions for specified insulation.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Acoustic Batts

- A. Product
 - 1. ROXUL SAFE'n'SOUND, as manufactured by ROXUL Inc., 8024 Esquesing Line, Milton, Ontario L9T 6W3 Canada
 - 2. Sound & Fire Block, as manufactured by Johns Manville, Denver, Colorado
- B. Alternate Product
 - 1. QuietZone Acoustic Batts, as manufactured by Owens Corning
- C. Requirements
 - 1. Unfaced
 - 2. Width as required to fill wall cavity between studs, with no gaps.
 - 3. Height as required to fill wall cavity between studs with no gaps.
 - 4. Minimum thickness 3” (76 mm)

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 098100

SECTION 099000 – PAINTING AND COATING

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Submit product data and instructions for each paint and coating product to be used.
- B. Color Samples: Submit 5 x 7 inch finish and color brush-out samples for each type of paint and in each color selected from full range of manufacturer's colors.
- C. Wall Samples: Prior to ordering material, paint sample application of complete system in colors selected for Architect's final review. Workmanship, sheen and coverage of these walls shall be the standard for other paint work.

1.3. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Benjamin Moore & Co.
 - 2. Pittsburgh Paint.
 - 3. PPG Architectural Finishes, Inc.
 - 4. Sherwin-Williams Company (The).
 - 5. The Sansin Corporation, 111 MacNab Avenue, Strathroy, Ontario, Canada N7G 4J6
 - a. For stain products to be applied to exterior and interior clear finish wood surfaces, as directed by the Architect.

2.2. PAINT MATERIALS, GENERAL

- A. Material Compatibility: Provide primers and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

- B. Material Quality: Provide manufacturer's best-quality paint material of various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.
 2. Colors: As selected by Architect from manufacturer's full range.
- C. MIXING AND TINTING
1. Perform color tinting operations prior to delivery of paint to site.
 2. Use and add thinner in accordance with paint manufacturer's recommendations. Do not use kerosene or similar organic solvents to thin water-based paints.
 3. Thin paint for spraying in accordance with paint manufacturer's instructions.

2.3. EXTERIOR PAINT SYSTEMS

- A. Include lintels, relief angles, ferrous handrails, hollow metal doors, etc.
- B. Install manufacturer's products as systems. One manufacturer's products must be used for priming and finishing on each type of surface. Products of listed manufacturers will be acceptable.
- C. Exterior Ferrous Metal Paint Systems: Provide either of the following three (3) corrosion protection systems as coordinated with finish systems.
1. Metalizing: 85/15 zinc-aluminum thermally melted and sprayed on steel surfaces in lieu of galvanizing.
 - a. Coating Systems:
 - (1) Surface Preparation: SSPC-SP10 near white metal blasting.
 - (2) First Coat: Zinc/aluminum metalizing at 5 mils dft.
 2. Corrosion-Inhibitor: Provide either:
 - a. Hot Dip Galvanizing: In accordance with G-90 Standards; 2.02 oz/sq yd and touch-up.
 - b. Exterior Ferrous Metals which are not delivered with either a Galvanized or Metalized Zinc Finish shall be given a Zinc-Rich Primer Finish: For use at exterior steel and interior steel where subject to corrosion, including items buried in masonry (members, supports, anchors, clips that are not stainless steel or cast iron) shall be protected by:
 - (1) Coating System:
 - (a) Surface preparation: SSPC SP-6, Commercial Blast Cleaning.
 - (b) Where blast cleaning is not available chemically clean steel of rust with Aquarius Coatings Blue Steel (1-800-561-6750).
 - (c) One (1) coat of organic zinc-rich primer at 3 - 4.5 dry mils thickness; applied in accordance with manufacturer's directions.

- (2) Products:
 - (a) Sherwin-Williams: Zinc-clad 5 B69A45 or Corithane I zinc primer
 - (b) Benjamin Moore: M16 Organic Zinc Rich Primer
 - (c) Pittsburgh Paints: Epoxy zinc rich primer 97-671, 97-672.

- D. Epoxy Intermediate Paint over Galvanized, Metalized or Organic Zinc-Rich Primer: For coating exposed ferrous metal items including: lintels, handrails, roof supports, etc. (Section 05500), exterior hollow metal galvanized doors (Section 08110).
 - 1. Paint System:
 - a. Surface preparation: SSPC SP1 Solvent Cleaning. Touch up prime paint or galvanized coating if applicable. If required by paint manufacturer, galvanized surfaces shall be primed with vinyl-butyrate wash primer.
 - b. One (1) coat high-build epoxy tinted to final coat color at 3-5 mils dry film.
 - 2. Manufacturers' Systems:
 - a. Sherwin-Williams: Epolon Multi Mil Epoxy, B62.
 - b. Benjamin Moore: M33/M38 Polyamide Epoxy Semi Gloss.
 - c. Pittsburgh Paints: Hi-Build Epoxy, 97-130/139.

- E. Primer and Finish for Exterior Aluminum: (for use at exterior aluminum not painted with a Kynar Coating).
 - 1. Paint System:
 - a. Clean aluminum thoroughly to SSPC SP.1 or high pressure water, etc.
 - b. Prime with wash primer.
 - c. Finish with urethane or acrylic semi-gloss enamel to match clear anodic aluminum.
 - 2. Manufacturers' Systems:
 - a. Sherwin Williams: One (1) coat Clear Aqua 280 Acrylic Modified Alkyd #F78S513 Silver, or color as selected.
 - b. Pittsburgh Paints: One (1) coat: Multi Prime 97-680.

- F. Corrosion Protection for Structural Steel below Grade: (for steel columns, etc.)
 - 1. Manufacturer's Systems: Two (2) coats corrosion resistant coating applied for long term protection of buried steel at minimum dry film thickness of 16 mils. Material shall be 75-78 percent solids.
 - 2. Manufacturer shall be equal to:
 - a. Sherwin-Williams: Epoxy Mastic, B58 Series.
 - b. Benjamin Moore: Two (2) coats Coal Tar Epoxy M-48.

- G. Corrosion Protection for Ferrous Metals Without Blast Cleaning:
 - 1. Paint System:
 - a. Surface preparation SSPC SP-3 power tool cleaning.
 - b. Two (2) coats self-priming rust inhibitive coating.
 - c. Top coat with enamel.

2. Manufacturers' Systems:
 - a. Sherwin-Williams: B62 S10 epoxy mastic aluminum primer, top coat Epoxy Mastic B58 Series.
 - H. Exterior Clear Finish Woodwork
 1. Penetrating Stain - Exterior carpentry: Penetrating, aqueous, UV resistant, low VOC, natural oil stain, breathable;
 2. Acceptable Product: Sansin Classic.
 3. Color: Selected by Architect from unrestricted range.
 4. Apply in two coats; perform finishing in accordance with stain manufacturer's written instructions. Allow stain to penetrate to rejection.
 5. Touch-up ends cuts with same finish.
- 2.4. INTERIOR PAINT SYSTEMS
- A. Install manufacturer's products as systems. Use one (1) manufacturer's products for surface preparation, priming and finishing on each type of surface. Products equal to the listed manufacturer's will be acceptable.
 - B. Finish colors will be set forth in the color schedule to be furnished by Architect from standard or custom colors.
 - C. Sheen, unless indicated otherwise, sheen level will be selected by Architect after contract award.
 - D. Interior Paint Systems:
 1. New Gypsum Board Flat Paint:
 - a. Paint System:
 - (1) One (1) coat Latex Primer Sealer.
 - (2) Two (2) coats acrylic - Latex Flat.
 2. New Gypsum Board Assemblies - Eggshell Paint:
 - a. Paint System:
 - b. Primer: One (1) coat latex primer sealer as required by finish system.
 - c. Finish: Two (2) coats latex eggshell enamel. Refer to wall sample requirements, of this Section).
 3. New Gypsum Board Assemblies - Semigloss: (for use at utility rooms, or where directed by Architect.)
 - a. Paint System:
 - (1) Primer: One (1) coat: Latex Primer Sealer.
 - (2) Finish: Two (2) coats: Semi-gloss Latex Enamel at minimum total dry film thickness 3.6 mils.
 4. Interior Unprimed Ferrous Metal Work:
 - a. Paint System:
 - (1) Clean surfaces to SSPC SP3.
 - (2) Primer: One (1) coat: Rust Inhibitive Alkyd Primer.

- (3) Finish: Two (2) coats: Semi-gloss Alkyd Enamel.
5. Galvanized Interior Metal Work: (Where directed by the Architect)
 - a. Paint System:
 - (1) Clean surfaces to SSPC SP-1 Solvent Cleaning.
 - (2) Primer: One coat: Galvanized Metal Primer.
 - (3) Finish: Two (2) coats: Alkyd Semi-gloss Enamel.
6. Galvanized Primer and Finish Paint: (Where directed by the Architect)
 - a. Paint System:
 - (1) One (1) coat Prime and Finish Paint for galvanized deck and prime painted beams.
7. Factory Primed Metal: (hollow metal doors and frames, etc.)
 - a. Paint System:
 - (1) Touch up sound compatible prime paint where damaged with same primer or reprime with compatible primer.
 - (2) Two (2) coats of Semi-gloss Alkyd Enamel.
8. Interior Aluminum: (for use at trim to be field painted at windows etc.)
 - a. Paint System:
 - (1) One (1) coat Acrylic Metal Primer.
 - (2) Two (2) coats Latex Enamel.
9. Painted Wood Surfaces: Exposed finish wood surfaces not scheduled for a natural, plastic laminate or factory finish shall be painted.
 - a. Paint System:
 - (1) Clean and sand surface smooth.
 - (2) Seal knots with knot sealer.
 - (3) Prime with one (1) coat Wood Primer, Alkyd Enamel Underbody.
 - (4) Finish with two (2) coats Latex Enamel, sheen to be selected by Architect.
10. Exposed Uninsulated Exposed Ferrous Metal and Galvanized Piping, Ductwork, Fittings and Equipment: (not subject to extreme heat such as standpipe system and exposed sprinkler piping in public areas)
 - a. Paint System:
 - (1) Clean surface to SSPC SP3 Power Tool Cleaning.
 - (2) Primer: One (1) coat galvanized metal primer or rust inhibitor primer as appropriate.
 - (3) Finish: One (1) coat alkyd enamel, sheen to be selected by Architect.
11. Wood Finishing - Clear:
 - a. Paint System:
 - (1) Clean and sand surface smooth and sand lightly between coats.
 - (2) One coat stain (as directed by Architect).

- (3) Paste wood filler (if required to fill open pores).
- (4) Primer: Two (2) coats matte finish polyurethane.
- (5) Finish: Reduced with one (1) pint of mineral spirits per gallon. Sheen as selected by Architect.

2.5. ACCESSORIES

- A. Cleaner: Non-residual solvent shall be used to clean dirt and grease from surfaces prior to painting.
- B. Sealer: Seal defects such as knots, gum pockets or extractives with an approved knot sealer.
- C. Mildew Remover: Mixture of three (3) quarts warm water, one (1) tablespoon dry powdered laundry detergent and one (1) quart of hypochlorite-type household bleach followed with a clean water rinse.
- D. Miscellaneous Surfaces and Accessories: Include painting of other miscellaneous surfaces not listed and not finish painted under other sections. Use primer and two (2) finish coats as suitable for surface. Surfaces scheduled on drawings as unfinished do not require this treatment.
- E. Metal Filler: (for repair to damaged or dented metal before painting)
 - 1. Manufacturer shall be equal to:
 - a. Alvin Products Inc. - Lab Metal
 - b. Bondo
 - 2. Assembly: Apply polyester filler to base metal as per manufacturer's direction. Sand smooth after hardening.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 099000

SECTION 102813 – TOILET ACCESSORIES

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product literature for all accessories
- B. Installation details

1.3. Guarantee / Warrantee

- A. Manufacturer’s standard warranty

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturers Products

- A. FSB North America, 1 Bishop Lane, Madison, CT 06443; Phone: 203-404-4700
- B. Product Line: METRIC Bathroom Accessories
- C. Finish: Fine matte stainless steel

2.2. Wall Hook

- A. Model 82 8270



- B.

2.3. Towel Bar

- A. Model 82 8270



- B.
- 2.4. Toilet Roll Holder

- A. Model 82 8270



- B.
- 2.5. Wall Bumper

- A. Model 82 8270



- B.
- 2.6.

PART 3 – EXECUTION

- 3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 102813

SECTION 103100 – MANUFACTURED FIREPLACES

PART 1 – GENERAL

- 1.1. Included in this Section
 - A. Premanufactured Fireplaces
 - B. Chimney system
- 1.2. Submittals
 - A. Manufacturer's Product Literature
 - 1. Provide for both fireplaces and chimney system
 - B. Shop Drawings, including the following information
 - 1. Intake air components and details
 - 2. Surrounding construction
 - 3. Hearth details
 - 4. Fireplace manufacturer options and accessories
 - 5. Chimney fabrication, installation and accessories
- 1.3. Warranty
 - A. Manufacturer's standard warranty.
- 1.4. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. MANUFACTURERS
 - A. Fireplaces
 - 1. Stûv America, 4747 Rue Bourg, Saint-Laurent, Quebec H4T 1H9, Canada; Phone: 514-396-9463
 - B. Chimneys
 - 1. Industrial Chimney Company, Inc., 400 J. F. Kennedy St., Jerome, Quebec J7Y 4B7, Canada; Phone 450-565-6336
- 2.2. Freestanding Fireplaces
 - A. Stûv 30 – Compact
 - B. Combustion air inlet as indicated
- 2.3. Built-in Fireplaces

- A. Stûv 21/105
- B. Combustion air inlet as indicated

2.4. Chimneys

- A. Excel UL103 HT
- B. Stainless Steel finish
- C. Length shall be fabricated primarily of 48" ling sections. Shorter lengths shall be used only when necessary to achieve height required.
- D. Accessories:
 - 1. Excel premanufactured flashing as required to accommodate roof slope.
 - 2. Rain cap deluxe EDRC
 - 3. Roof brace ERB
 - 4. Wall support EWS, where required.
 - 5. Tees, elbows, and other accessories as required.
 - 6. All accessories shall be manufactured by the chimney manufacturer.

2.5. Alternate Manufacturers

- A. Alternate Manufacturers are not acceptable for Manufactured Fireplaces

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 103100

SECTION 105700 – WARDROBE AND CLOSET ACCESSORIES

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Literature
 - 1. Sample of all products used.

1.3. Guarantee / Warranty

- A. Manufacturer’s standard warranty

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturer

- A. Richelieu Hardware, 7900 Boulevard Henri-Bourassa O, Saint-Laurent, QC H4S 1V4, Canada; Phone 800-361-6000

2.2. Products

- A. Closet Rods
 - 1. Round chrome, 1-1/4” diameter, 18 gauge.
- B. Supports
 - 1. Chrome parts 2212502140 and 2212512140.

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers’ recommendations.
- B. Maximum span shall not exceed 4’-0”.

END OF SECTION 105700

SECTION 113013 – RESIDENTIAL APPLIANCES

PART 1 – GENERAL

- 1.1. Related Sections
 - A. 012300 – Alternates
- 1.2. Basis of Design
 - A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
 - B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
 - C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.
- 1.3. Submittals
 - A. Product literature for all appliances, indicating color selection and all provided accessories.
- 1.4. Underlying Construction
 - A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

- 2.1. Manufacturers Products
 - A. Base Bid – “Cool Option”
 - 1. Range
 - a. Verona Classic 36" Single Oven Dual Fuel Range – Stainless Steel.
 - b. Model # VCLFSGE365SS
 - 2. Refrigerator
 - a. Bosch-36" Counter Depth French Door Bottom Freezer, 800 Series – Stainless Steel.
 - b. Model # B21CL80SNS
 - 3. Range Hood
 - a. Bosch 300 Series 36" under counter hood 280 CFM Stainless steel
 - b. Model # DUH36152UC
 - 4. Wine Cooler

- a. Not required at Cabin 1500, other locations apply.
 - b. Marvel 24" Single zone Wine Cellar tinted UV glass, stores up to 45 wine bottles, 4 8-bottle roll out racks.
 - c. Model # 61WCM-BS-G
5. Dishwasher
- a. Bosch 4 programs and 4 options, sanitizer option eliminates bacteria and enhances drying results, 46 dba quietest brand, infrared light beams on floor to indicate dishwasher is running. Aquastop leak protection works 24/7.
 - b. Model # SHV53T53UC
6. Microwave
- a. GE Profile Series 1.0 Space maker Microwave in stainless steel.
 - b. Model # PEM31SFSS
7. Washer
- a. GE White front load 4.3 DOE Cu. Ft. Washer.
 - b. Model # GFWS1700H
8. Dryer
- a. GE White front load 7.5 Cu. Ft. Capacity Dryer
 - b. Model # GFDS170EH
- B. Alternate – "Warm Option"
1. Range
- a. Wolf 36" Range 6 Burners Dual Fuel
 - b. Model # DF366
2. Refrigerator
- a. Sub Zero, combination refrigerator with freezer drawers and internal water dispenser.
 - b. Model # IT-36CIID LH
3. Range Hood
- a. Pro Ventilation low profile wall hood 36" wide 10" high 22" deep
 - b. Model # PW362210
4. Blower
- a. Wolf internal blower for low profile hood, 500 CFM.
 - b. Model # 810991
5. Wine Cooler
- a. Not required at Cabin 1500, other locations apply.
 - b. 24" wine storage, glass door, overlay, left hinge
 - c. Model # UW-24/0-LH
6. Dishwasher

- a. Bosch 4 programs and 4 options, sanitizer option eliminates bacteria and enhances drying results, 46 dba quietest brand, info1light beams on floor to indicate dishwasher is running. Aquastop leak protection works 24/7.
 - b. Model # SHV53T53UC
7. Microwave
- a. Wolf Conv. Microwave Oven.
 - b. Model # MC24
8. Coffee Maker
- a. Wolf, 24" coffee system, stainless.
 - b. Model # EC24/S
9. Washer
- a. GE White front load 4.3 DOE Cu. Ft. Washer.
 - b. Model # GFWS1700H
10. Dryer
- a. GE White front load 7.5 Cu. Ft. Capacity Dryer
 - b. Model # GFDS170EH

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 113013

SECTION 122413 – ROLLER WINDOW SHADES

PART 1 – GENERAL

1.1. Basis of Design

- A. All manufacturers and products listed shall be considered “or equal”, unless explicitly stated that no alternates will be acceptable.
- B. All Contractor-proposed “or equal” products shall be submitted to the Architect for review and approval prior to submitting any contract pricing proposals to the Owner.
- C. Failure to submit “or equal” products by the Contractor shall be interpreted as a commitment to provide and install the specified products.

1.2. Submittals

- A. Product Data: Manufacturer’s data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Styles, material descriptions, dimensions of individual components, profiles, features, finishes and operating instructions.
 - 3. Storage and handling requirements and recommendations.
 - 4. Mounting details and installation methods.
- B. Shop Drawings: Plans, elevations, sections, product details, installation details, operational clearances, power and control wiring diagrams, and relationship to adjacent work.
- C. Window Treatment Schedule: For all roller shades. Use same room designations as indicated on the Drawings and include opening sizes and key to typical mounting details.
- D. Verification Samples: For each finish product specified, one complete set of shade components, unassembled, demonstrating compliance with specified requirements. Shade cloth samples and aluminum finish sample as selected. Mark face of material to indicate interior faces.

1.3. Guarantee / Warranty

- A. Warranty: Provide manufacturer’s standard warranties, including the following:
 - 1. Roller Shade Hardware, and Shadecloth: Manufacturer’s standard non-depreciating twenty-five-year limited warranty.

1.4. Underlying Construction

- A. In the event a product or material is applied or attached to previously-built or constructed assemblies, application or installation of the specified product or assembly shall indicate the Contractor or Sub-Contractor has inspected and accepted the underlying construction as suitable for the construction to continue.

PART 2 – PRODUCTS

2.1. Manufacturer

A. MANUFACTURER

1. MechoSystems; 42-03 35th Street, Long Island City, NY 11101. Tel: (718) 729-2020 ext 1901; Mr. Glen Berman. Email: glenb@MechoSystems.com.

2.2. Bracket

A. Mecho/5 Wide Bracket

1. Provide with optional SnapLoc fascia.
2. Provide end caps at all locations where end is exposed

2.3. Shade Cloth

A. Ecoveil screen, 1350 series (5% open), Silver Birch 1369

PART 3 – EXECUTION

3.1. Manufacturers Recommendations

- A. All products and materials shall be installed in strict accordance with manufacturers' recommendations.

END OF SECTION 122413