SECTION 061000
ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood products.
2. Wood-preservative-treated lumber.
3. Dimension lumber framing.
4. Miscellaneous lumber.
5. Plywood backing panels.

B. Related Requirements:

1. Section 061753 "Shop-Fabricated Wood Trusses" for wood trusses made from dimension lumber.
2. Section 061516 “Wood Roof Decking” for roof decking.
3. Section 061533 “Wood Floor Decking for floor decking.
4. Section 062013 "Exterior Finish Carpentry" for exterior finishes.
5. Section 062023 "Interior Finish Carpentry" for interior finishes.

1.2 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Dimension Lumber: Lumber of 2 inches nominal size or greater but less than 5 inches nominal size in least dimension.

C. Exposed Framing: Framing not concealed by other construction.

D. Lumber grading agencies, and abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. SPIB: The Southern Pine Inspection Bureau.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS

A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry wood products.
4. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content:

1. Boards: 19 percent.
2. Dimension Lumber: 19 percent unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1, Use categories as follows:

1. UC3B (Commodity Specification A): Uncoated sawn products in exterior construction not in contact with ground, exposed to all weather cycles including intermittent wetting but with sufficient air circulation for wood to dry. Excludes sawn products not in contact with ground but with ground contact-type hazards. Include the following items:

    a. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, and vapor barriers.
    b. All wood floor framing members.
    c. Wood posts that bear on foundations.

2. UC4A (Commodity Specification A): Sawn products in contact with ground and exposed to all weather cycles including continuous or prolonged wetting, and sawn products not in contact with ground but with ground contact-type hazards or that are critical or hard to replace. Include the following items:

    a. Wood walkway and ramp structural floor framing, and wood railings and all other members for walkways and ramps.

3. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
4. For exposed items indicated to receive a stained or natural finish, chemical formulations are not to require incising, contain colorants, bleed through, or otherwise adversely affect finishes.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. All wood floor framing members.
3. All wood columns or posts that bear on foundations.
4. All wood framing, railings, and other members for construction of walkways and ramps.

2.3 DIMENSION LUMBER FRAMING

A. Non-Load-Bearing Interior Partitions by Grade: Construction, Stud, or No. 3 grade.

1. Application: All interior partitions.

2. Species:

a. Hem-fir (north); NLGA.
b. Southern pine or mixed southern pine; SPIB.
c. Spruce-pine-fir; NLGA.
d. Northern species; NLGA.
e. Eastern softwoods; NeLMA.

B. Joists, Rafters, and Other Framing by Grade: No. 1 or No. 2 grade.

1. Species:

a. Hem-fir (north); NLGA.
b. Southern pine; SPIB.
c. Southern pine or mixed southern pine; SPIB.
d. Spruce-pine-fir; NLGA.
e. Douglas fir-larch (north); NLGA.

C. Exposed Framing: Hand-select material for uniformity of appearance and freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot-holes, shake, splits, torn grain, and wane.

1. Species and Grade:

a. As indicated above for load-bearing construction of same type.
b. Hem-fir (north); No. 1 grade; NLGA.
c. Mixed southern pine; No. 1 grade; SPIB.
d. Spruce-pine-fir; No. 1 grade; NLGA.
e. Douglas fir-larch (north); No. 1 grade; NLGA.

2.4 MISCELLANEOUS LUMBER

A. Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Cants.
4. Furring.
5. Grounds.
6. Utility shelving.

B. Dimension Lumber Items: Construction or No. 2 grade lumber of any of the following species:

1. Hem-fir (north); NLGA.
2. Mixed southern pine or southern pine; SPIB.
3. Spruce-pine-fir; NLGA.
4. Northern species; NLGA.
5. Eastern softwoods; NeLMA.

C. Utility Shelving: Lumber with 19 percent maximum moisture content of any of the following species and grades:

1. Eastern white pine, Idaho white, lodgepole, ponderosa, or sugar pine; Premium or No. 2 Common (Sterling) grade; NeLMA, NLGA, WCLIB, or WWPA.
2. Mixed southern pine or southern pine; No. 1 grade; SPIB.
3. Hem-fir or hem-fir (north); Select Merchantable or No. 1 Common grade; NLGA, WCLIB, or WWPA.
4. Spruce-pine-fir (south) or spruce-pine-fir; Select Merchantable or No. 1 Common grade; NeLMA, NLGA, WCLIB, or WWPA.

D. Concealed Boards: 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine or southern pine; No. 2 grade; SPIB.
2. Spruce-pine-fir (south) or spruce-pine-fir; Construction or No. 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
3. Eastern softwoods; No. 2 Common grade; NeLMA.
4. Northern species; No. 2 Common grade; NLGA.

E. Roofing Nailers: Structural- or No. 2-grade lumber or better; kiln-dried Douglas fir, southern pine, or wood having similar decay-resistant properties.

F. Combination Wall Sheathing, Water-Resistive Barrier, and Air Barrier:
1. Oriented-Strand board Wall Sheathing: With integral water-resistive barrier, Exposure 1 sheathing.
    a. Basis of Design Product: Provide Huber Engineered Woods LLC, ZIP System Roof and Wall Sheathing.
        1) Substitutions: See Section 01 60 00 – Product Requirements
    b. Span Rating and Performance Category: Not less than 32/16 Structural 1; ½" Performance Category.
    c. Edge Profile: Square Edge.
    d. Provide fastening guide on top panel surface with pre-spaced fastening symbols for 12" and 24" on centers spacing.
    e. Performance standard: DOC PS2-1 and ICC-ES-ESR-1474.
    f. Factory laminated integral water-resistive barrier facer.
    g. Perm Rating of Integral Water Resistive Barrier: 12-16 perms
    h. Assembly maximum air leakage of -0072 cfm/sg ft infiltration and .0023 cfm/sg ft exfiltration at a pressure differential of 1.57.
    i. Exposure time: Designed to resist weather exposure for 180 days.

G. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

H. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.5 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: Plywood, DOC PS 1, Exposure 1, C-D Plugged, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

2.6 FASTENERS

A. General: Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329.

B. Nails, Brads, and Staples: ASTM F1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

2.7 METAL FRAMING ANCHORS

A. Post Bases: Adjustable-socket type for bolting in place with standoff plate to raise post 1 inch above base and with 2-inch-minimum side cover, socket 0.062 inch thick, and standoff and adjustment plates 0.108 inch thick.

B. Joist Ties: Flat straps, with holes for fasteners, for tying joists together over supports.

1. Width: 3/4 inch.
2. Thickness: 0.050 inch.
3. Length: 16 inches.

C. Rafter Tie-Downs: Bent strap tie for fastening rafters or roof trusses to beam below, 1-1/2 inches wide by 0.050 inch thick.

D. Materials: Unless otherwise indicated, fabricate from the following materials:

1. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.

a. Use for interior locations unless otherwise indicated.

2. Heavy-Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 coating designation; and not less than 0.036 inch thick.

a. Use for wood-preservative-treated lumber and where indicated.

2.8 MISCELLANEOUS MATERIALS

A. Water-Repellent Preservative: NWWDA-tested and -accepted formulation containing 3-iodo-2-propynyl butyl carbamate, combined with an insecticide containing chloropyrifos as its active ingredient.

B. Self-adhering seam and flashing tape: Pressure sensitive, self-adhering, cold-applied, proprietary seam tape consisting of polyolefin film with acrylic adhesive.
   1. Basis of Design Product: Huber Engineering Woods; ZIP System Seam and Flashing Tape.
      a. Substitutions; Provide Combination Wall Sheathing, Water-Resistive Barrier, and Air Barrier Manufacturers recommended product in order to provide required warranty.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels.

D. Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

E. Do not splice structural members between supports unless otherwise indicated.

F. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

G. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

H. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

   1. Use inorganic boron for items that are continuously protected from liquid water.
   2. Use copper naphthenate for items not continuously protected from liquid water.

I. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.10.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. ICC-ES evaluation report for fastener.

J. Securely attach roofing nailers to substrates by anchoring and fastening to withstand bending, shear, or other stresses imparted by Project wind loads and fastener-resistance loads as designed in accordance with ASCE/SEI 7.

K. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 INSTALLATION OF WOOD BLOCKING AND NAILERS

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach wood blocking to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

C. Attach wood roofing nailers securely to substrate to resist the designed outward and upward wind loads indicated on Drawings and in accordance with ANSI/SPRI ED-1, Tables A6 and A7.

3.3 INSTALLATION OF WALL AND PARTITION FRAMING

A. General: Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions. Fasten plates to supporting construction unless otherwise indicated.

1. For exterior walls, provide 2-by-4-inch nominal- size wood studs spaced 16 inches o.c. unless otherwise indicated.
2. For interior partitions and walls, provide 2-by wood studs as indicated spaced as indicated.
3. Provide continuous horizontal blocking at midheight of partitions more than 96 inches high, using members of 2-inch nominal thickness and of same width as wall or partitions.

B. Construct corners and intersections with three or more studs.

C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.

1. For non-load-bearing partitions, provide double-jamb studs and headers not less than 4-inch nominal depth for openings 48 inches and less in width, 6-inch nominal depth for openings 48 to 72 inches in width, 8-inch nominal depth for openings 72 to 120 inches in width, and not less than 10-inch nominal depth for openings 10 to 12 feet in width.

3.4 INSTALLATION OF

A. General: Comply with applicable recommendations in American Wood Council, “ASD/LRFD Manual for Engineered Wood Construction,” 2012 edition for types of structural-use-panels and applications indicated.

B. Fastening methods: Fasten panels for wall sheathing with nails to wood framing.

C. Sheathing Joint Treatment:
1. Seal sheathing joints according to sheathing manufacturer’s written instructions.
    a. Apply proprietary seam tape to joints between sheathing panels
    b. Utilize tape gun or hard rubber roller provided by manufacturer to ensure tape is completely adhered to substrates.

3.5 INSTALLATION OF FLOOR JOIST FRAMING

A. General: Install floor joists with crown edge up and support ends of each member with not less than 1-1/2 inches of bearing on wood or metal, or 3 inches on masonry. Attach floor joists as follows:

1. Where framed into wood supporting members, by using metal joist hangers.

B. Frame openings with headers and trimmers supported by metal joist hangers; double headers and trimmers where span of header exceeds 48 inches.

C. Do not notch in middle third of joists; limit notches to one-sixth depth of joist, one-third at ends. Do not bore holes larger than one-third depth of joist; do not locate closer than 2 inches from top or bottom.

D. Provide solid blocking of 2-inch nominal thickness by depth of joist at ends of joists unless nailed to header or band.

E. Lap members framing from opposite sides of beams, girders, or partitions not less than 4 inches or securely tie opposing members together. Provide solid blocking of 2-inch nominal thickness by depth of joist over supports.

F. Anchor members paralleling masonry with 1/4-by-1-1/4-inch metal strap anchors spaced not more than 96 inches o.c., extending over and fastening to three joists. Embed anchors at least 4 inches into grouted masonry with ends bent at right angles and extending 4 inches beyond bend.

G. Provide solid blocking between joists under jamb studs for openings.

H. Under non-load-bearing partitions, provide double joists separated by solid blocking equal to depth of studs above.

I. Provide bridging of type indicated below, at intervals of 96 inches o.c., between joists.

1. Diagonal wood bridging formed from bevel-cut, 1-by-3-inch nominal-size lumber, double-crossed and nailed at both ends to joists.
2. Steel bridging installed to comply with bridging manufacturer's written instructions.

3.6 INSTALLATION OF RAFTER FRAMING

A. Rafters: Notch to fit exterior wall plates and use metal framing anchors. Where rafters abut at ridge, place directly opposite each other and use metal ridge hangers.

B. Provide special framing as indicated for eaves, overhangs, dormers, and similar conditions if any.

3.7 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

SECTION 06 15 16
WOOD DECKING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Solid-sawn wood roof and floor decking.

B. Related Requirements:
   1. Section 061000 "Rough Carpentry" for dimension lumber items associated with wood decking.

1.02 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. For preservative-treated wood products, include chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.

B. Samples: 24 inches long, showing the range of variation to be expected in appearance of wood decking.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Schedule delivery of wood roof decking to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces. Provide for air circulation within and around stacks and under temporary coverings. Stack wood roof decking with surfaces that are to be exposed in the final Work protected from exposure to sunlight.

PART 2 PRODUCTS

2.01 WOOD ROOF DECKING, GENERAL

A. General: Comply with DOC PS 20 and with applicable grading rules of inspection agencies certified by ALSC's Board of Review.

2.02 SOLID-SAWN WOOD ROOF DECKING

A. Standard for Solid-Sawn Wood Roof Decking: Comply with AITC 112.

B. Decking Species:
   1. Roof Decking: Balsam fir, Douglas fir-larch, Douglas fir-larch (North), hem-fir, hem-fir (North), southern pine, or spruce pine-fir (North).
   2. Exterior Floor Decking: Southern pine.

C. Decking Size:
   1. Roof Decking Nominal Size: 2 by 6.
   2. Exterior Floor Decking Nominal Size: 5/4 by 6.

D. Roof Decking Grade:
   1. Commercial Decking.

E. Grade Stamps: Factory mark each item with grade stamp of grading agency. Apply grade stamp to surfaces that are not exposed to view.

F. Moisture Content: Provide wood roof decking with 19 percent maximum moisture content at time of dressing. See preservative treatment article for floor decking.

G. Face Surface: [Smooth].

H. Edge Pattern:
   1. Roof Decking: Tongue and groove.
   2. Exterior Floor Decking: Eased edge.

2.03 PRESERVATIVE TREATMENT

A. Pressure treat exterior wood floor decking in accordance with AWPA U1; Use Category UC4A.

1. For laminated roof decking, treat lumber before gluing.

B. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
   1. For exposed items indicated to receive a stained or natural finish, use products that do not contain colorants, bleed through, or otherwise adversely affect finishes.

C. Use process that includes water-repellent treatment.

D. Use process that does not include water repellents or other substances that might interfere with application of indicated finishes.

E. After treatment, redry materials to 19 percent maximum moisture content.

2.04 ACCESSORY MATERIALS

A. Fasteners for Solid-Sawn Roof Decking: Provide fastener size and type complying with AITC 112 for thickness of deck used.

B. Nails: Common; complying with ASTM F1667, Type I, Style 10.

C. Sealants: Latex, complying with applicable requirements in Section 079200 "Joint Sealants" and recommended by sealant manufacturer and manufacturer of substrates for intended application.

D. Barrier Membrane: Water barrier membrane comprised of self-adhered polymer modified bituminous sheet waterproofing conforming to ASTM D D1970. Provide the following product:
   1. Grace "Vycor Deck Protector Self Adhered Flashing" - 4" width roll, or approved equal.

2.05 FABRICATION

A. Seal Coat: After fabricating and surfacing roof decking, apply a saturation coat of penetrating sealer[in fabrication shop].

B. Apply indicated finish materials to comply with Section 099110 "Exterior Painting" in fabrication shop.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine walls and support framing in areas to receive wood roof decking for compliance with installation tolerances and other conditions affecting performance of wood roof decking.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Install solid-sawn wood roof decking to comply with AITC 112.
   1. Locate end joints for [two-span continuous lay-up] [combination simple and two-span continuous lay-up] [controlled random lay-up] [lay-up indicated].

B. Where preservative-treated decking must be cut during erection, apply a field-treatment preservative to comply with AWPA M4.
   1. For solid-sawn roof decking, use inorganic boron (SBX).

C. Install water barrier membrane centered on tops of exterior deck joists and supporting beams, to be concealed from view under exterior floor decking boards upon installation.

D. Apply joint sealant to seal roof decking at exterior walls at the following locations:
   1. Between roof decking and supports located at exterior walls.
   2. Between roof decking and exterior walls that butt against underside of roof decking.
   3. Between tongues and grooves of roof decking over exterior walls and supports at exterior walls.

3.03 ADJUSTING

A. Repair damaged surfaces and finishes after completing erection. Replace damaged roof decking if repairs are not approved by Architect.

3.04 PROTECTION

A. Provide water-resistive barrier over roof decking as recommended by the roofing manufacturer and as the Work progresses to protect roof decking until roofing is applied.

END OF SECTION

SECTION 06 15 33
COMPOSITE WOOD FLOOR DECKING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Composite wood decking.
   2. Barrier membrane.

1.02 ACTION SUBMITTALS

A. Product Data: For composite wood decking. Include installation instructions.

B. Samples: For composite wood decking, not less than 24 inches long, showing the range of variation to be expected in appearance of decking, including surface texture.

1.03 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:
   1. Composite wood decking.
   2. Decking fasteners.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

B. Handle and store composite wood lumber to comply with manufacturer's written instructions.

PART 2 PRODUCTS

2.01 COMPOSITE WOOD DECKING

A. Composite wood Lumber, General: Products acceptable to authorities having jurisdiction with current model code evaluation reports that show compliance with building code in effect for Project for indicated type of construction.
   1. Allowable loads and spans, as documented in evaluation reports or in information referenced in evaluation reports, are not to be less than design loads and spans indicated.

B. Composite Wood Lumber: Solid shapes made from a mixture of cellulose fiber and polyethylene or polypropylene.
   1. Manufacturers: Subject to compliance with requirements, provide products by the following:
   2. Trex Company, Inc.
   3. Basis of Design: Trex Select Decking.
   4. Decking Standard: ICC-ES AC174.
   5. Decking Size: 0.82-inch by 5-1/2 inches actual.
   6. Configuration: Provide product with grooved edges designed for fastening with concealed decking fasteners.
   7. Surface Texture: Woodgrain.
   8. Color: Pebble Grey.

2.02 FASTENERS

A. General: Provide fasteners of size and type indicated, acceptable to authorities having jurisdiction, and that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.
   1. Use stainless steel.

B. Power-Driven Fasteners: ICC-ES AC70.

2.03 BARRIER MEMBRANE

A. Barrier Membrane: Water barrier membrane comprised of self-adhered polymer modified bituminous sheet waterproofing conforming to ASTM D D1970. Provide the following product:
   1. Grace "Vycor Deck Protector Self Adhered Flashing" - 4" width roll, or approved equal.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.03 INSTALLATION OF BARRIER MEMBRANE

A. Install water barrier membrane centered on tops of deck joists and supporting beams, to be concealed from view under decking boards after installation.

3.04 INSTALLATION, GENERAL

A. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit work to other construction; scribe and cope as needed for accurate fit.

B. Install composite wood lumber to comply with manufacturer's written instructions.

C. Secure decking to framing with screws.

D. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of members or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

E. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced and with adjacent rows staggered.

3.05 INSTALLATION OF BARRIER MEMBRANE

A. Install water barrier membrane centered on tops of deck joists and supporting beams, to be concealed from view under decking boards after installation.

END OF SECTION

SECTION 06 17 53

SHOP-FABRICATED WOOD TRUSSES

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Wood products.

1.02 DEFINITIONS

A. Metal-Plate-Connected Wood Trusses: Planar structural units consisting of metal-plate-connected members fabricated from dimension lumber and cut and assembled before delivery to Project site.

1.03 ACTION SUBMITTALS

A. Product Data: For metal-plate connectors, metal truss accessories, and fasteners.

B. Shop Drawings: Show fabrication and installation details for trusses.

1. Show location, pitch, span, camber, configuration, and spacing for each type of truss required.
2. Indicate sizes, stress grades, and species of lumber.
3. Indicate locations, sizes, and materials for permanent bracing required to prevent buckling of individual truss members due to design loads.
4. Indicate type, size, material, finish, design values, orientation, and location of metal connector plates.
5. Show splice details and bearing details.

C. Delegated Design Submittals: For metal-plate-connected wood trusses indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.04 INFORMATIONAL SUBMITTALS

A. Qualification Data: For metal connector-plate manufacturer professional engineer and fabricator.

B. Material Certificates: For dimension lumber specified to comply with minimum specific gravity. Indicate species and grade selected for each use and specific gravity.

C. Product Certificates: For metal-plate-connected wood trusses, signed by officer of truss-fabricating firm.

D. Evaluation Reports: For the following, from ICC-ES:

1. Metal-plate connectors.
2. Metal truss accessories.

1.05 QUALITY ASSURANCE

A. Metal Connector-Plate Manufacturer Qualifications: A manufacturer that is a member of TPI and that complies with quality-control procedures in TPI 1 for manufacture of connector plates.

1. Manufacturer's responsibilities include providing professional engineering services needed to assume engineering responsibility.
2. Engineering Responsibility: Preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.

B. Fabricator Qualifications: Shop that participates in a recognized quality-assurance program, complies with quality-control procedures in TPI 1, and involves third-party inspection by an independent testing and inspecting agency acceptable to Architect and authorities having jurisdiction.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Handle and store trusses to comply with recommendations in SBCA BCSI, "Building Component Safety Information: Guide to Good Practice for Handling, Installing, Restraining, & Bracing Metal Plate Connected Wood Trusses."

1. Store trusses flat, off of ground, and adequately supported to prevent lateral bending.
2. Protect trusses from weather by covering with waterproof sheeting, securely anchored.
3. Provide for air circulation around stacks and under coverings.

B. Inspect trusses showing discoloration, corrosion, or other evidence of deterioration. Discard and replace trusses that are damaged or defective.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design metal-plate-connected wood trusses.

B. Structural Performance: Metal-plate-connected wood trusses are to be capable of withstanding design loads within limits and under conditions indicated. Comply with requirements in TPI 1 unless more stringent requirements are specified below.

1. Design Loads: As indicated.
2. Maximum Deflection under Design Loads:

    a. Roof Trusses: Vertical deflection of 1/360 of span for snow load. Vertical deflection of 1/240 of span for total load.

C. Comply with applicable requirements and recommendations of TPI 1, TPI DSB, and SBCA BCSI.

D. Wood Structural Design Standard: Comply with applicable requirements in AF&PA's "National Design Specifications for Wood Construction" and its "Supplement."

2.02 WOOD PRODUCTS

A. Lumber: DOC PS 20 and applicable rules of any rules-writing agency certified by the American Lumber Standard Committee (ALSC) Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, omit grade stamp and provide certificates of grade compliance issued by grading agency.
3. Provide dressed lumber, S4S.
4. Provide dry lumber with 19 percent maximum moisture content at time of dressing.

B. Minimum Chord Size for Roof Trusses: As indicated on Drawings.

C. Permanent Bracing: Provide wood bracing that complies with requirements for miscellaneous lumber in Section 061000 "Rough Carpentry."

2.03 METAL CONNECTOR PLATES

A. Fabricate connector plates to comply with TPI 1.

B. Hot-Dip Galvanized-Steel Sheet: ASTM A653/A653M; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G60 coating designation; and not less than 0.036 inch thick.

2.04 FASTENERS

A. Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Provide fasteners for use with metal framing anchors that comply with written recommendations of metal framing manufacturer.

B. Nails, Brads, and Staples: ASTM F1667.

2.05 METAL FRAMING ANCHORS AND ACCESSORIES

A. Allowable design loads, as published by manufacturer, are to comply with or exceed those indicated. Manufacturer's published values are to be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors are to be punched for fasteners adequate to withstand same loads as framing anchors.

B. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.

C. Truss Tie-Downs: Bent strap tie for fastening roof trusses to wall studs below, 1-1/2 inches wide by 0.050 inch thick.

D. Roof Truss Clips: Angle clips for bracing bottom chord of roof trusses at non-load-bearing walls, 1-1/4 inches wide by 0.050 inch thick. Clip is fastened to truss through slotted holes to allow for truss deflection.

2.06 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint: SSPC-Paint 20, with dry film containing a minimum of 92 percent zinc dust by weight.

2.07 FABRICATION

A. Cut truss members to accurate lengths, angles, and sizes to produce close-fitting joints.

B. Fabricate metal connector plates to sizes, configurations, thicknesses, and anchorage details required to withstand design loads for types of joint designs indicated.

C. Assemble truss members in design configuration indicated; use jigs or other means to ensure uniformity and accuracy of assembly, with joints closely fitted to comply with tolerances in TPI 1. Position members to produce design camber indicated.

1. Fabricate wood trusses within manufacturing tolerances in TPI 1.

D. Connect truss members by metal connector plates located and securely embedded simultaneously in both sides of wood members by air or hydraulic press.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install wood trusses only after supporting construction is in place and is braced and secured.

B. If trusses are delivered to Project site in more than one piece, assemble trusses before installing.

C. Hoist trusses in place by lifting equipment suited to sizes and types of trusses required, exercising care not to damage truss members or joints by out-of-plane bending or other causes.

D. Install and brace trusses according to TPI recommendations and as indicated.

E. Install trusses plumb, square, and true to line and securely fasten to supporting construction.

F. Space trusses as indicated; adjust and align trusses in location before permanently fastening.

G. Anchor trusses securely at bearing points; use metal truss tie-downs as applicable. Install fasteners through each fastener hole in metal framing anchors according to manufacturer's fastening schedules and written instructions.

H. Install and fasten permanent bracing during truss erection and before construction loads are applied. Anchor ends of permanent bracing where terminating at walls or beams.

1. Install bracing to comply with Section 061000 "Rough Carpentry."

I. Install wood trusses within installation tolerances in TPI 1.

J. Do not alter trusses in field. Do not cut, drill, notch, or remove truss members.

K. Replace wood trusses that are damaged or do not comply with requirements.

1. Damaged trusses may be repaired according to truss repair details signed and sealed by the qualified professional engineer responsible for truss design, when approved by Architect.

3.02 REPAIRS AND PROTECTION

A. Repair damaged galvanized coatings on exposed surfaces in accordance with ASTM A780/A780M and manufacturer's written instructions.

END OF SECTION

SECTION 06 20 00
FINISH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Finish carpentry items.

B. Wood interior door frames, screen stops.

C. Screen panel (insect screen plus hardware cloth).

D. Interior plywood wall sheathing.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 06 1000 - Rough Carpentry

B. Section 09 91 23 - Interior Painting

C. Section 09 91 01 - Exterior Painting

1.03 REFERENCES

A. Comply with the applicable provisions of the "Architectural Woodwork Standards" (First Edition-2009) (AWS) except as otherwise specified herein. References to "Premium", "Custom" and "Economy" Grades herein, shall be as defined in that Standard.

B. Lumber Standard: AWS Section 3.

C. Preservative Treatment Standard: American Wood Protection Association Standard (AWPA) U1-02

1.04 SUBMITTALS

A. Product Data: Catalog sheets, specifications and installation instructions for each item specified.
   1. Construction details.
   2. Material descriptions.
   3. Dimensions of individual components and profiles.

B. Samples:
   1. Samples for Initial Selection: For siding including related accessories.
   2. Samples for Verification: For each type, color, texture, and pattern required.
      a. 12 inch long by actual-width sample of siding.
      b. 12 inch long by actual-width samples of each type of trim and accessories.

C. Quality Control Submittals:
   1. Pressure Treatment Certificates: Certification by treating plant stating chemicals and process used, net amount of salts retained, and conformance with specified standards.

1.05 QUALITY ASSURANCE

A. Mill and Producer's Label: Each lumber and panel item shall bear label indicating type, grade, mill, and grading agency on unfinished surface, or on end of material with finished surfaces.

B. Panels shall bear APA or equivalent grade-mark; each panel.

C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
   1. Build mockup of typical wall area as shown on Drawings.
   2. Build mockups for siding including accessories.
      a. Size: 48 inches long by 60 inches high.
      b. Include outside corner on one end of mockup.
   3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless the Director’s Representative specifically approves such deviations in writing.
   4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

D. Pre-installation Conference: Before the siding Work is scheduled to commence, a conference will be held by the Director's Representative at the Site for the purpose of reviewing the Contract Documents and discussing requirements for the Work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Store materials flat and off the ground in a dry, well-ventilated, weather tight place.

B. Protect sanded and prefinished surfaces during handling and installation. Keep such surfaces covered with polyethylene film or other suitable protective covering.

1.07 PROJECT CONDITIONS

A. Environmental Requirements: Comply with manufacturer's printed recommendations regarding environmental conditions under which siding can be constructed.

1.08 COORDINATION

A. Coordinate installation with flashings and other adjoining construction to ensure proper sequencing.

PART 2 PRODUCTS

2.01 MANUFACTURERS/COMPANIES

A. Haida Forest Products, 8818 Greenall Avenue, Burnaby, BC, Canada, (604) 437- 3434, www.haidaforest.com. http://www.haidaforest.com.
   1. Or approved equal.

2.02 MATERIALS

A. Lumber: Kiln-dried to 12 percent average moisture content for exterior Work; 8 percent for interior Work.

B. Fasteners for Wood:
   1. Nails, Spikes, and Staples: Size and type to suit application; non-ferrous metal or galvanized steel for exterior locations, high humidity locations, treated wood, and wood to receive transparent finishes; plain finish for other interior locations.
   2. Bolts, Nuts, Washers, Lags, and Screws: Medium carbon steel; size and type to suit application; galvanized for exterior locations, high humidity locations, and treated wood; plain finish for other interior locations.

2.03 DOOR FRAME AND TRIM

A. Exterior Woodwork Items:
   1. Window Casings and Moldings: Softwood; prepare for paint finish.

2.04 PRESERVATIVE TREATMENT

A. Dip Treatment for exterior wood within 18 inches of ground, except western red cedar: Comply with AWS Section 3 and as otherwise specified.
   1. Inspect wood items after treatment. Discard warped or twisted items.

2.05 FABRICATION

A. Machine and sand wood surfaces to comply with the requirements of the AWS Quality Grade specified.
   1. Match finish of surfaces to existing adjacent.

B. Mill assemble items to largest sizes practicable, to minimize field cutting and jointing. Allow for cutting and fitting where necessary to fit at the Site.

2.06 SCREEN PANELS

A. Hardware Cloth: Galvanized steel wire mesh: 1/4" X 1/4"; 22 gage; hot dip galvanized finish.

B. Insect screening: Aluminum wire mesh: 18x16; .011" wire diameter; charcoal finish.

C. Staples: Galvanized Steel Staples; 1/2 in. Leg x 3/8 in. Crown.

D. Screen Stops:
   1. Wall Openings: 3/4" x 1-1/2" S4S; Species: Cedar; Grade: C and Better Clear.

2. Screen Doors: 1/2" x 3/4" S4S; Species: Cedar; Grade: C and Better Clear.

E. Fasteners for Screen Stops: Stainless Steel 8d
1. Wall panels: 4d x 1-1/2 in. 316 Stainless Steel Nails - Ring Shank.
2. Door panels: 3d x 1-1/4 in. 316 Stainless Steel Nails - Ring Shank.

2.07 PLYWOOD

A. Interior wall sheathing: APA rated plywood sheathing, Grade A-C Exterior Group 1. Furnish APA PS 1 veneered panels.
1. Size: 1/2" x 4' x 8' panels.
2. Prep for FRP installation per specification 09 77 21.

2.08 ACCESSORIES

A. Push Plates for Screen Doors:
1. Ives 8200 3 X 12 US32D Push Plate, Satin Stainless Steel Finish, 12" Length, 3" Width, or equal as approved by Director's Representative.
2. Provide #6 X 5/8 stainless steel Torx screws to fill all plate holes.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of siding and related accessories.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.03 INSTALLATION

A. Comply with siding and soffit manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
1. Do not install damaged components.

B. Cut wood and fiber cement items to fit. Scribe and cut for accurate fit where Work abuts other finish Work.

C. Distribute defects to the greatest appearance advantage possible.

D. Trim and Moulding: Install in single, unjointed lengths at openings and for runs less than the maximum lumber length available. For long runs, use only 1 piece less than the maximum length available in any straight run. Stagger joints in adjacent members.
1. Miter rake fascia where sloping fascia boards meet vertical drip fascia boards.
2. Miter rake fascia boards plumb where they meet at the ridge.

E. Attach the Work securely in place.

F. Treated Wood: Coat exposed surfaces of treated field-cut wood items with a heavy brush coating of the same preservative.

G. Screen Panel Installation (Where Indicated at Screen Doors and Screen Panels):
1. Install hardware cloth toward building interior (push side of screen doors) and insect screening on building exterior, stapling securely to framing.
2. Install screening with full height panels to span vertical openings at walls and full width by height panels where located on doors. Locate screen seams over framing members.
3. Stretch panels tight at openings for a tight, flat installation, avoiding bagging and sagging. Staple screening to framing all around openings 3" O.C.
4. Cover stapled framing/screen edges with screen stops horizontally on exterior at head and sill, as well as vertically at building corners and at intermediate framing (where occurs). Predrill stops as required to prevent splitting.
5. Cover stapled framing/screen edges with screen stops around all four sides of panels on screen doors. Predrill stops as required to prevent splitting.
6. Prime and paint screen stops to match building trim.

H. Screen Door Push Plates:
   1. Install with Torx screws on door panels in locations as directed by Director's Representative.

3.04 ADJUSTING AND CLEANING

A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.

B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION

SECTION 06 65 00
PLASTIC SIMULATED WOOD TRIM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following horizontal and trim solid surface product types:
   1. Top of wall trim
   2. Baseboard trim
   3. Fiberglass panelling opening interior trim

B. Related Sections include the following:
   1. Section 06 20 00 - Finish Carpentry
   2. Section 09 77 21 - Fiberglass Reinforced Plastic Wall Panel System

C. Alternates:
   1. Refer to Division 1 Section "Submittals" for description of work in this Section affected by alternates.

1.03 DEFINITION

A. Solid surface is defined as nonporous, homogeneous material maintaining the same composition throughout the part with a composition of acrylic polymer, aluminum trihydrate filler and pigment.

1.04 SUBMITTALS

A. Product data:
   1. For each type of product indicated.

B. Shop drawings:
   1. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices and other components.
      a. Show full-size details, edge details, thermoforming requirements, attachments, etc.
      b. Show locations and sizes of furring, blocking, including concealed blocking and reinforcement specified in other Sections.
      c. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers and other items installed in solid surface.

C. Samples:
   1. For each type of product indicated.
      a. Submit minimum 6-inch by 6-inch sample in specified gloss.
      b. Cut sample and seam together for representation of inconspicuous seam.
      c. Indicate full range of color and pattern variation.
   2. Approved samples will be retained as a standard for work.

D. Product data:
   1. Indicate product description, fabrication information and compliance with specified performance requirements.

E. Product certificates:
   1. For each type of product, signed by product manufacturer.

F. Fabricator/installer qualifications:
   1. Provide copy of certification number.

G. Manufacturer certificates:
   1. Signed by manufacturers certifying that they comply with requirements.

H. NSF/ANSI standards:

1. Refer to www.nsf.org for the latest compliance to NSF/ANSI Standard 51 for food zone - all food types.

I. Maintenance data:
   1. Submit manufacturer's care and maintenance data, including repair and cleaning instructions.
      a. Maintenance kit for finishes shall be submitted.
   2. Include in project closeout documents.

1.05 QUALITY ASSURANCE

A. Qualifications:
   1. Shop that employs skilled workers who custom fabricate products similar to those required for this project and whose products have a record of successful in-service performance.

B. Fabricator/installer qualifications:
   1. Work of this section shall be by a certified fabricator/installer, certified in writing by the manufacturer.

C. Applicable standards:
   1. Standards of the following, as referenced herein:
      a. American National Standards Institute (ANSI)
      b. American Society for Testing and Materials (ASTM)
      c. National Electrical Manufacturers Association (NEMA)
      d. NSF International
   2. Fire test response characteristics:
      a. Provide with the following Class A (Class I) surface burning characteristics as determined by testing identical products per UL 723 (ASTM E84) or another testing and inspecting agency acceptable to authorities having jurisdiction:
         1) Flame Spread Index: 25 or less.
         2) Smoke Developed Index: 450 or less.

D. Coordination drawings:
   1. Shall be prepared indicating:
      a. Plumbing work.
      b. Electrical work.
      c. Miscellaneous steel for the general work.
      d. Indicate location of all walls (rated and non-rated), blocking locations and recessed wall items, etc.
   2. Content:
      a. Project-specific information, drawn accurately to scale.
      b. Do not base coordination drawings on reproductions of the contract documents or standard printed data.
      c. Indicate dimensions shown on the contract drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements.
      d. Provide alternate sketches to designer for resolution of such conflicts.
         1) Minor dimension changes and difficult installations will not be considered changes to the contract.

E. Drawings shall:
   1. Be produced in 1/2-inch scale for all fabricated items.

F. Drawings must be complete and submitted to the architect within 60 days after award of contract for record only.
   1. No review or approval will be forthcoming.
   2. Coordination drawings are required for the benefit of contractor's fabricators/installers as an aid to coordination of their work so as to eliminate or reduce conflicts that may arise during the installation of their work.

G. Job mock-up:

1. Prior to fabrication of architectural millwork, erect sample unit to further verify selections made under sample submittals and to demonstrate the quality of materials and execution.
2. Mock-up shall be of lavatory top with integral bowl.
3. Build the mock-up to comply with the contract documents and install in a location as directed by the architect.
4. Notify the architect two weeks in advance of the date of when the mock-up will be delivered.
5. Should mock-up not be approved, re-fabricate and reinstall until approval is secured.
    a. Remove rejected units from project site.
6. After approval, the mock-up may become a part of the project.
7. This mock-up, once approved, shall serve as a standard for judging quality of all completed units of work.

H. Pre-installation conference:
1. Conduct conference at project site to comply with requirements in Division 1.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver no components to project site until areas are ready for installation.

B. Store components indoors prior to installation.

C. Handle materials to prevent damage to finished surfaces.
1. Provide protective coverings to prevent physical damage or staining following installation for duration of project.

1.07 WARRANTY

A. Provide manufacturer’s warranty against defects in materials.
1. Warranty shall provide material and labor to repair or replace defective materials.
2. Damage caused by physical or chemical abuse or damage from excessive heat will not be warranted.

B. Optional Installed Warranty:
1. To qualify for the optional Installed Warranty, fabrication and installation must be performed by a DuPont Certified Fabrication/Installation source who will provide a brand plate for the application.
2. This warranty covers all fabrication and installation performed by the certified/approved source subject to the specific wording contained in the Installed Warranty Card.

C. Manufacturer’s warranty period:
1. Ten years from date of substantial completion.

1.08 MAINTENANCE

A. Provide maintenance requirements as specified by the manufacturer.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers:
1. Subject to compliance with requirements, provide products by one of the following:
    a. AZEK Trimboards manufactured by The AZEK Company. (Basis of Design)
    b. Or approved equal.

2.02 MATERIALS

A. PVC: Free foam cellular PVC material with a small cell microstructure and density of .55 grams/cm3.

B.

C. Paintable PVC Trimboard: AZEK Paintpro Trimboard, designed with a natural appearance to compliment fiber cement, engineered wood, natural cedar and is engineered to be painted.
1. Size:
    a. Nominal Width: 4", 6", 8", 10"

b. Nominal Thickness: 1" & 5/4"
c. Length

2. Finish: Reversible with Traditional (smooth) / Frontier (woodgrain) finish
   a. Painting:
      1) Must be painted within 180 days of UV exposure
      2) For lighter colors with a light reflective value (LRV) 55 or greater: paint must be 100% acrylic latex.
      3) For darker colors with an LRV less than 55: paint bust be vinyl-safe from a vinyl-safe color palette.
      4) For custom color, use a coating with solar reflective pigments.

2.03 ACCESSORIES

A. Joint adhesive:
   1. Manufacturer's standard adhesive kit to create inconspicuous, nonporous joints.
   2. The glue joint should be secured with a fastener and/or fastened on each side of the joint to allow adequate bonding time.
   3.

B. Sealant:
   1. Use urethane, polyurethane or acrylic based sealants without silicone.

C. Fasteners:
   1. AZEK Cortex for trim
   2. Use fasteners designed for wood trim and wood siding (thinner shank, blunt point, full round head) with AZEK.
   3. Use a highly durable fastener such as stainless steel or hot-dipped galvanized.
   4. Staples, small brads and wire nails must not be used as fastening members.
   5. The fasteners should be long enough to penetrate the solid wood substrate a minimum of 1-1/2".
   6. Standard nail guns work well with AZEK trim products.
   7. Use 2 fasteners per every framing member for trimboard applications. Timboards 12" or wider, as well as sheets, will require additional fasteners.
   8. Fasteners must be installed no more thank 2" from the end of each board.
   9. AZEK should be fastened into a flast, solid substrate. Fastening into hollow or uneven areas must be avoided.
   10. Pre-drilling is typically not required unless a large fastener is used or product is installed in low temperatures.

2.04 FINISHES

A. Select from the manufacturer's standard color chart.
   1. Color:
      a. Director's Representative to choose from manufacturers standard color range.
      b. Architect to choose color from Dupont 2019 price range of 2, 3, or 4, or equal.

B. Finish:
   1. Provide surfaces with a uniform finish.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates and conditions, with fabricator present for compliance with requirements for installation tolerances and other conditions affecting performance of work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.
   1. Provide product in the largest pieces available.

2. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work.
3. Cut and finish component edges with clean, sharp returns.
4. Rout radii and contours to template.
5. Edges can be finished by sanding, grinding or filing with traditional woodworking tools.
6. Thermal Expansion and Contraction:
    a. Properly fastening material along its entire length will minimize expansion and contraction.
    b. When properly fasetened, allow 1/8" per 18 foot of product for expansion and contraction
    c. Joints between pieces of material should be glued to eliminate joint separation. When gaps are glued on a long run of material, allow expansion and contraction at ends of the run.
7. Carefully dress joints smooth, remove surface scratches and clean entire surface.

3.03 REPAIR

A. Repair or replace damaged work which cannot be repaired to Director's Representatives satisfaction.

3.04 CLEANING AND PROTECTION

A. Keep components clean during installation.

B. Remove adhesives, sealants and other stains.

END OF SECTION