

SECTION 01 1000

SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: ARAPAHOE EAST 2010 RENOVATION.
- B. Owner's Name: BOULDER HOUSING PARTNERS.
- C. Architect's Name: ODELL ARCHITECTS.
- D. The Project consists of the DEMOLITION AND CONSTRUCTION of STAIR TOWER, SIDING, WINDOWS, PAINTING, CONCRETE, FOUNDATION.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

1.03 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is shown on drawings and specified in Section 02 4100.
- B. Scope of alterations work is shown on drawings.

1.04 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.05 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Arrange use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Work by Others.
- C. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Time Restrictions:
 - 1. Limit conduct of especially noisy exterior work to the hours of 8AM-5PM.
 - 2. Limit conduct of especially noisy interior work to the hours of 9AM-5PM.

END OF SECTION

SECTION 01 3000

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Site mobilization meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Progress photographs.
- F. Submittal procedures.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties to Contract, _____ and Architect.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.02 SITE MOBILIZATION MEETING

- A. Architect will schedule a meeting at the Project site prior to Contractor occupancy.
- B. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's Superintendent.
 - 5. Major Subcontractors.
- C. Agenda:
 - 1. Use of premises by Owner and Contractor.
 - 2. Owner's requirements and occupancy prior to completion.
 - 3. Construction facilities and controls provided by Owner.

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4. Temporary utilities provided by Owner.
 5. Survey and building layout.
 6. Security and housekeeping procedures.
 7. Schedules.
 8. Application for payment procedures.
 9. Procedures for testing.
 10. Procedures for maintaining record documents.
 11. Requirements for start-up of equipment.
 12. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within two days after meeting to participants, with 1 copies to Architect, Owner, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.
- C. Agenda:
1. Review minutes of previous meetings.
 2. Review of Work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede, or will impede, planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Maintenance of progress schedule.
 7. Corrective measures to regain projected schedules.
 8. Planned progress during succeeding work period.
 9. Maintenance of quality and work standards.
 10. Effect of proposed changes on progress schedule and coordination.
 11. Other business relating to Work.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

- A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule with each Application for Payment.

3.05 PROGRESS PHOTOGRAPHS

END OF SECTION

SECTION 01 3216

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preliminary schedule.
- B. Construction progress schedule, bar chart type.

1.02 RELATED SECTIONS

- A. Section 01 1000 - Summary: Work sequence.

1.03 SUBMITTALS

- A. Within 10 days after date of Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

1.04 SCHEDULE FORMAT

- A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- B. Diagram Sheet Size: Maximum 22 x 17 inches (560 x 432 mm) or width required.
- C. Sheet Size: Multiples of 8-1/2 x 11 inches (216 x 280 mm).
- D. Scale and Spacing: To allow for notations and revisions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRELIMINARY SCHEDULE

- A. Prepare preliminary schedule in the form of a horizontal bar chart.

3.02 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.
- C. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- D. Provide legend for symbols and abbreviations used.

3.03 BAR CHARTS

- A. Include a separate bar for each major portion of Work or operation.
- B. Identify the first work day of each week.

END OF SECTION

SECTION 01 5000

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.02 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.03 SECURITY - See Section 01 3553

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.04 VEHICULAR ACCESS AND PARKING - See Section 01 5500

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 5813

TEMPORARY PROJECT SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project identification sign.

1.02 RELATED REQUIREMENTS

1.03 QUALITY ASSURANCE

- A. Design sign and structure to withstand 50 miles/hr (80 km/hr) wind velocity.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawing: Show content, layout, lettering, color, foundation, structure, sizes and grades of members.

PART 2 PRODUCTS

2.01 PROJECT IDENTIFICATION SIGN

- A. One painted sign, 48 sq ft (4.5 sq m) area, bottom 6 feet (2 m) above ground.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install sign surface plumb and level, with butt joints. Anchor securely.

END OF SECTION

SECTION 01 6000

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations and procedures.

1.02 RELATED REQUIREMENTS

- A. Document 00 2113 - Instructions to Bidders: Product options and substitution procedures prior to bid date.

1.03 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Agreement.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Do not use products having any of the following characteristics:

2.02 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- D. Substitution Submittal Procedure:
 - 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 - 3. The Architect will notify Contractor in writing of decision to accept or reject request.

3.02 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Prevent contact with material that may cause corrosion, discoloration, or staining.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

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- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 02 4100

DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Building demolition excluding removal of hazardous materials and toxic substances.
- B. Selective demolition of built site elements.
- C. Selective demolition of building elements for alterations purposes.
- D. Abandonment and removal of existing utilities and utility structures.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 1000 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- C. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- D. Section 01 6000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- E. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
- F. Section 31 2200 - Grading: Topsoil removal.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Site Plan: Showing:
 - 1. Areas for temporary construction and field offices.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.04 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Fill Material: As specified in Section 31 2200 - Grading

PART 3 EXECUTION

3.01 SCOPE

- A. Remove other items indicated, for salvage, relocation, recycling, and _____.
- B. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permit.
 - 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

3.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as shown.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.

- C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and _____): Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
 - 4. Patch as specified for patching new work.

3.05 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 03 3000

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete formwork.
- B. Concrete reinforcement.
- C. Concrete curing.

1.02 REFERENCE STANDARDS

- A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute International; 2006.
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
- C. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2005.
- D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
- E. ACI 308R - Guide to Curing Concrete; American Concrete Institute International; 2001 (Reapproved 2008).
- F. ACI 347 - Guide to Formwork for Concrete; American Concrete Institute International; 2004.
- G. ASTM A 185/A 185M - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete; 2007.
- H. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2007.
- I. ASTM A 767/A 767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement; 2005.
- J. ASTM A 775/A 775M - Standard Specification for Epoxy-Coated Steel Reinforcing Bars; 2007b.
- K. ASTM C 33 - Standard Specification for Concrete Aggregates; 2007.
- L. ASTM C 39/C 39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2005.
- M. ASTM C 150 - Standard Specification for Portland Cement; 2007.
- N. ASTM C 330 - Standard Specification for Lightweight Aggregates for Structural Concrete; 2005.
- O. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2008a.
- P. ASTM D 3963/D 3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy Coated Reinforcing Steel Bars; 2001 (Reapproved 2007).

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

PART 2 PRODUCTS

2.01 FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI 347 to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.

2.02 REINFORCEMENT

- A. Reinforcing Steel: ASTM A 615/A 615M Grade 60 (420).
 - 1. Type: Deformed billet-steel bars.
 - 2. Finish: Unfinished, unless otherwise indicated.
 - 3. Finish: Galvanized in accordance with ASTM A 767/A 767M, Class I, unless otherwise indicated.
 - 4. Finish: Epoxy coated in accordance with ASTM A 775/A 775M, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain type.
 - 1. Form: Coiled Rolls.
 - 2. Mesh Size: 6 x 12 (150 x 300).
 - 3. Wire Gage: W 4 x W 4 (MW 25 x MW 25).

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C 150, Type I - Normal portland type.
 - 1. Acquire all cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C 33.
- C. Lightweight Aggregate: ASTM C 330.
- D. Fly Ash: ASTM C 618, Class C or F.

2.04 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
 - 1. Replace as much portland cement as possible with fly ash, ground granulated blast furnace slag, silica fume, or rice hull ash as is consistent with ACI recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
 - 1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- C. Normal Weight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: 3,000 psi (20.7 MPa).
- D. Structural Lightweight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: 3,000 psi (20.7 MPa).

PART 3 EXECUTION

3.01 PREPARATION

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.

3.02 INSTALLING REINFORCEMENT

- A. Fabricate and handle epoxy-coated reinforcing in accordance with ASTM D 3963/D 3963M.

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- B. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- C. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.

3.03 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.

3.04 CONCRETE FINISHING

3.05 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

3.06 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.

END OF SECTION

SECTION 05 1200

STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural steel framing members, support members, suspension cables, sag rods, and struts.
- B. Grouting under base plates.

1.02 REFERENCE STANDARDS

- A. AISC (MAN) - Steel Construction Manual; American Institute of Steel Construction, Inc.; 2005.
- B. AISC S303 - Code of Standard Practice for Steel Buildings and Bridges; American Institute of Steel Construction, Inc.; 2005.
- C. ASTM A 36/A 36M - Standard Specification for Carbon Structural Steel; 2005.
- D. ASTM A 242/A 242M - Standard Specification for High-Strength Low-Alloy Structural Steel; 2004.
- E. ASTM A 529/A 529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2005.
- F. ASTM A 992/A 992M - Standard Specification for Structural Steel Shapes; 2006a.
- G. ASTM C 1107/C 1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2008.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings:

1.04 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC "Steel Construction Manual."

PART 2 PRODUCTS

2.01 MATERIALS

- A. Steel Angles and Plates: ASTM A 36/A 36M.
- B. Steel W Shapes and Tees: ASTM A 992/A 992M.
- C. Rolled Steel Structural Shapes: ASTM A 992/A 992M.
- D. Steel Shapes, Plates, and Bars: ASTM A 242/A 242M high-strength, corrosion-resistant structural steel.
- E. Steel Shapes, Plates, and Bars: ASTM A 529/A 529M high-strength, carbon-manganese structural steel, Grade 50.
- F. Suspension Cable: _____ wire rope.
- G. Sag Rods: ASTM A 36/A 36M.
- H. Grout: Non-shrink, non-metallic aggregate type, complying with ASTM C 1107/C 1107M and capable of developing a minimum compressive strength of 7,000 psi (48 MPa) at 28 days. Provide _____ manufactured by _____.

PART 3 EXECUTION

3.01 ERECTION

- A. Erect structural steel in compliance with AISC "Code of Standard Practice for Steel Buildings and Bridges".
- B. Grout solidly between column plates and bearing surfaces, complying with manufacturer's instructions for nonshrink grout. Trowel grouted surfaces smooth, splaying neatly to 45 degrees.

END OF SECTION

SECTION 06 7300

COMPOSITE DECKING

PART 1 - GENERAL

1.01 1.1 SUMMARY

1.02 A. Section Includes:

1.03 1. Composite wood decking.

1.04 2. Composite wood [fascia] [risers] [and] [trim].

1.05 B. Related Sections:

1.06 1. Division 01: Administrative, procedural, and temporary work requirements.

1.07 2. Section [06 1100 - Wood Framing:] [_____ - _____:] Wood framing and supports.

1.08 1.2 REFERENCES

1.09 A. ASTM International (ASTM):

1.10 1. C177-04 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal

1.11 Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.

1.12 2. D143-94(2000) - Standard Test Methods for Small Clear Specimens of Timber.

1.13 3. D198-05 - Standard Test Methods of Static Tests of Lumber in Structural Sizes.

1.14 4. D1037-06 - Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle

1.15 Panel Materials.

1.16 5. D1413-05 - Standard Test Method for Wood Preservatives by Laboratory Soil-Block Cultures.

1.17 6. D1761-06 - Standard Test Methods for Mechanical Fasteners in Wood.

1.18 7. D1929-96(2001) - Standard Test Method for Determining Ignition Temperature of Plastics.

1.19 8. D2047-04 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring

1.20 Surfaces as Measured by the James Machine.

1.21 9. D2394-05 - Standard Methods for Simulated Service Testing of Wood and Wood-Base Finish

1.22 Flooring.

1.23 10. D2395-06 - Standard Test Methods for Specific Gravity of Wood and Wood-Based Materials.

1.24 11. D4761-05 - Standard Test Methods for Mechanical Properties of Lumber and Wood-Base

1.25 Structural Material.

1.26 12. E84-07 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.27 13. F1679-04 Standard Test Method for Using a Variable Incidence Tribometer (VIT).

1.28 B. American Wood Preservers Association (AWPA) E1-06 - Standard Method for Laboratory Evaluation

1.29 to Determine Resistance to Subterranean Termites.

1.30 1.3 SUBMITTALS

1.31 A. Submittals for Review:

1.32 1. Product Data: Indicate sizes, profiles, surface finishes, and performance characteristics.

1.33 2. Samples: [12] [] inch long decking [and fascia] samples illustrating size, profile, color, and

1.34 surface finish.

1.35 Composite Wood Decking 06 7300-2 Trex Company, Inc. 09/11/07

1.36 C. Closeout Submittals:

1.37 1. Maintenance Data: Manufacturer's instructions on care and cleaning of composite wood

1.38 products.

1.39 1.4 DELIVERY, STORAGE AND HANDLING

1.40 A. Deliver, store, and handle composite wood in accordance with manufacturer's instructions.

1.41 B. Store composite wood level and flat, off ground or floor, with supports at each end and maximum 24

1.42 inches on center.

1.43 C. Do not stack composite wood over 12 feet high.

1.44 D. Cover composite wood with waterproof covering, vented to prevent moisture buildup.

1.45 1.5 WARRANTIES

1.46 A. Furnish manufacturer's 25 year warranty providing coverage against checking, splitting, splintering,

1.47 rotting, structural damage from termites, and fungal decay of composite wood.

PART 2 - PRODUCTS

2.01 2.1 MANUFACTURERS

2.02 A. Contract Documents are based on products by Trex Company, Inc.

2.03 B. Substitutions: Substitutions permitted, per architectural review and approval.

2.04 2.2 MATERIALS

2.05 A. Composite Wood:

2.06 1. Composition: Reclaimed wood and plastic with integral coloring; free from toxic chemicals and

2.07 preservatives.

2.08 2. Profiles:

2.09 a. Decking: Nominally 5/4 x 6 inches x up to 20 feet long. (maximum practical length.)

- 2.10 3. Surface texture: Transcend
- 2.11 4. Color[s]: Vintage Lantern
- 2.12 5. Characteristics:
- 2.13 a. Abrasion resistance: 0.01 inch wear per 1000 revolutions, tested to ASTM D2394.
- 2.14 b. Hardness: 1124 pounds, tested to ASTM D143.
- 2.15 c. Self ignition temperature: 743 degrees F, tested to ASTM D1929.
- 2.16 d. Flash ignition temperature: 698 degrees F, tested to ASTM D1929.
- 2.17 e. Flame spread rating: 80, tested to ASTM E84.
- 2.18 f. Water absorption, 24 hour immersion, tested to ASTM D1037:
- 2.19 1) Sanded surface: 4.3 percent.
- 2.20 2) Unsanded surface: 1.7 percent.
- 2.21 g. Thermal expansion coefficient, 36 inch long samples:
- 2.22 1) Width: 35.2×10^{-6} to 42.7×10^{-6} .
- 2.23 2) Length: 16.1×10^{-6} to 19.2×10^{-6} .
- 2.24 h. Fastener withdrawal, tested to ASTM D1761:
- 2.25 1) Nail: 163 pounds per inch.
- 2.26 2) Screw: 558 pounds per inch.
- 2.27 i. Static coefficient of friction:
- 2.28 Trex Company, Inc. 06 7300-3 Composite Wood Decking 09/11/07
- 2.29 1) Dry: 0.53 to 0.55, tested to ASTM D2047.
- 2.30 2) Dry: 0.59 to 0.70, tested to ASTM F1679.
- 2.31 3) Wet: 0.70 to 0.75, tested to ASTM F1679.
- 2.32 j. Fungus resistance, white and brown rot: No decay, tested to ASTM D1413.
- 2.33 k. Termite resistance: 9.6 rating, tested to AWPA E-1.
- 2.34 l. Specific gravity: 0.91 to 0.95, tested to ASTM D2395.
- 2.35 m. Compression:
- 2.36 1) Parallel: 1806 PSI ultimate, 550 PSI design, tested to ASTM D198.
- 2.37 2) Perpendicular: 1944 PSI ultimate, 625 PSI design, tested to ASTM D143.
- 2.38 n. Tensile strength: 854 PSI ultimate, 250 PSI design, tested to ASTM D198.
- 2.39 o. Shear strength: 561 PSI ultimate, 200 PSI design, tested to ASTM D143.
- 2.40 p. Modulus of rupture: 1423 PSI ultimate, 250 PSI design, tested to ASTM D4761.
- 2.41 q. Modulus of elasticity: 175,000 PSI ultimate, 100,000 PSI design, tested to ASTM D4761.
- 2.42 r. Thermal conductivity: 1.57 BTU per inch per hour per square foot at 85 degrees F, tested
- 2.43 to ASTM C177.

2.44 2.3 ACCESSORIES

2.45 A. Fasteners: [Hot dip galvanized steel] [or] [stainless steel] [composite wood screws] [nails] of length

2.46 recommended by composite wood manufacturer for profile being fastened.

PART 3 - EXECUTION

3.01 3.1 INSTALLATION

3.02 A. Install composite wood in accordance with manufacturer's instructions.

3.03 B. Cut, drill, and rout composite wood using carbide tipped blades.

3.04 C. Pre-drill fastener holes located closer than 1 inch from edges.

3.05 D. Cut ends square and true.

3.06 E. Do not use composite wood products as structural members.

3.07 F. Do not exceed maximum spans recommended by manufacturer.

3.08 G. Place boards perpendicular to supports.

3.09 H. Stagger end joints in adjacent rows at least one support.

3.10 I. Leave expansion spaces between abutting boards and between boards and adjacent construction:

3.11 1. End gaps between boards: 1/8 inch at ambient temperatures of 60 degrees F and above and

3.12 3/16 inch at ambient temperatures below 60 degrees F.

3.13 2. Side gaps between boards: 1/4 inch at ambient temperatures of 60 degrees F and above and

3.14 3/8 inch at ambient temperatures below 60 degrees F.

3.15 3. Gaps between boards and adjacent construction: 1/4 inch at ambient temperatures of 60 degrees F and above and 1/2 inch at ambient temperatures below 60 degrees F.

3.17 J. Place boards to span three or more supports.

3.18 K. Fasten each board to each support with two fasteners.

3.19 3.2 CLEANING

3.20 A. Clean composite wood to remove stains:

3.21 1. Mold, mildew, and berry and leaf stains: Clean surfaces with conventional deck wash containing detergent or sodium hypochlorite.

3.23 2. Rust and ground-in dirt: Clean surfaces with cleaner containing oxalic or phosphoric acid.

3.24 Composite Wood Decking 06 7300-4 Trex Company, Inc. 09/11/07

3.25 3. Oil and grease: Clean surfaces with detergent containing degreasing agent.

END OF SECTION

SECTION 07 1800

TRAFFIC COATINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Coating for waterproofing and traffic surface

1.02 REFERENCE STANDARDS

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Polyurethane Traffic Coating:
 - 1. DURADEK; Product WATERPROOF TRAFFIC MEMBRANE.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 TRAFFIC COATINGS

- A. Pedestrian Coating: Fluid-applied polyurethane with slip-reducing aggregate surface.
 - 1. Finished Coating Thickness: 50 mils (1.3 mm), minimum.

2.03 MATERIALS

- A. Membrane: Fluid applied polyurethane; waterproof; ASPEN color; conforming to the following:
- B. Surfacing: Clean sand.
- C. Filler and Primer: As recommended by membrane manufacturer.
- D. Cant Strips: 1 x 1 inches (25 x 25 mm) x 45 degrees, of dense sponge rubber compatible with adjacent materials.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate is ready to receive work, surface is clean, dry and free of substances that could adversely affect bond.

3.02 PREPARATION

- A. Clean substrate surface free of foreign matter.
- B. Install cant strips securely at intersecting surfaces.
- C. Protect adjacent surfaces.

3.03 INSTALLATION

- A. Apply system materials in accordance with manufacturer's instructions.
- B. Apply surfacing to top coat before set.

END OF SECTION

SECTION 07 1850

WATERPROOF TRAFFIC MEMBRANE

**** NOTE TO SPECIFIER ** DURADEK PVC WATERPROOF TRAFFIC MEMBRANE FOR DECKS AND OTHER EXTERIOR HORIZONTAL SURFACES.**

1.01 .

1.02 This section is based on products manufactured by Duradek/Durarail - Waterproof Traffic Membranes and Powder Coated Aluminum Railings, which is located at:

1.03 .

1.04 Duradek/Durarail U.S. Inc.:

1.05 1722 Iron Street

1.06 North Kansas City, MO 64116

1.07 Toll Free: 800-338-3568

1.08 Fax: 816 421-2924

1.09 Email: duradek@duradek.comDuradek/Durarail Canada Ltd.:

1.10 8288 129th Street

1.11 Surrey, BC V3W 0A6 Canada

1.12 Toll Free: 866-591-5594

1.13 Fax: 604 591-3100

1.14 Email: duradek@duradek.com <mailto:>

1.15 Web: www.duradek.com

1.16 .

1.17 Duradek is the original waterproof traffic membrane and has been solving waterproofing problems throughout North America since 1974. Duradek is suitable for waterproofing horizontal surfaces over habitable spaces, provided they are subject to not more than pedestrian traffic.

1.18 .

PART 1 GENERAL

2.01 SECTION INCLUDES

2.02 ** NOTE TO SPECIFIER ** Edit the following list to indicate the surfaces to be waterproofed.

- A. Traffic membrane, consisting of welded seam PVC waterproofing, over the following surfaces:
1. Balcony decks and roof decks.
 2. Walkways, ramps, and stairways.
 3. Patios and courtyards.

2.03 RELATED SECTIONS

2.04 ** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.

- A. Section 07620 - Sheet Metal Flashing and Trim: Scuppers, counterflashings, and fascias.

- B. Section 07710 - Manufactured Gutters and Downspouts: Scuppers, counterflashings, and fascias.
- C. Section 15160 - Roof drains

2.05 REFERENCES

2.06 **** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. CAN/ULC-S107 - Standard Methods of Fire Tests of Roof Coverings; National Standard of Canada.
- B. CCMC - Technical Guide for PVC Sheet Waterproofing (Exposed to Light Pedestrian Traffic); National Research Council, Canada Construction Materials Centre (CCMC).
- C. CGSB 37.54-95 - Roofing and Waterproofing Membrane, Sheet Applied, Flexible, Polyvinyl Chloride; Canadian General Standards Board.
- D. CGSB 37-GP-55M - Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane; Canadian General Standards Board.
- E. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- F. ICC - Acceptance Criteria for Walking Decks; ICC Evaluation Service, Inc. (ICC-ES).
- G. UBC Std 15-2 - Test Standard for Determining the Fire Retardancy of Roof-covering Materials; International Conference of Building Officials.

2.07 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Manufacturer's specifications, including data substantiating compliance with physical properties specified.
- C. Shop Drawings: Installation and seaming plan, showing joints, termination details, and interface with other materials.
- D. Samples: Two 8-1/2 by 11 inch (210 by 250 mm) pieces showing finish, pattern, color, and backing; labelled.
- E. Manufacturer's printed installation instructions and recommendations, including precautions required for seaming and adhering membrane.
- F. Installer's Qualifications.

2.08 QUALITY ASSURANCE

2.09 **** NOTE TO SPECIFIER ** If any other manufacturers would be acceptable, edit the following paragraph to indicate how much experience they must have. Duradek has been making this product for 34 years.**

- A. Manufacturer Qualifications: Company specializing in providing products of the type specified in this section, with minimum of 15 years documented experience with products in use.
- B. Installer Qualifications: Trained and currently certified by manufacturer.
- C. Pre-installation Meeting: Discuss waterproofing practices and precautions applicable to this project.
 - 1. Convene minimum of 7 days prior to start of installation.
 - 2. Require the attendance of:
 - a. Manufacturer's representative.

- b. Contractor's field superintendent.
- c. Installation foreman.
- d. Other trades affected by this work.
- e. Owner's representative.

2.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry and undamaged, with seals and labels intact.
 - 1. Label uncured materials, both sheets and canned goods, with date of manufacturer and shelf life.
 - 2. Do not use creased or damaged sheets.
 - 3. Do not use products after end of shelf life.
- B. Store and handle materials to prevent damage.
 - 1. Place materials on pallets.
 - 2. Prevent creasing of rolled materials.
 - 3. Do not use polyethylene to cover stored materials (canvas tarpaulins are acceptable).
 - 4. Keep containers closed, except when removing materials from them.
- C. Keep materials at temperature between 40 degrees F (4.4 degrees C) and 80 degrees F (26.6 degrees C); if adhesives are exposed to lower temperature, verify useability with manufacturer before using.

2.11 WARRANTY

- A. Provide manufacturer's 10 year warranty for membrane leaks due to a manufacturing defect, covering materials, and/or repair and replacement labor.

PART 2 PRODUCTS

3.01 MANUFACTURERS

3.02 **** NOTE TO SPECIFIER ** Delete one of the following two paragraphs. The first is the US company, the second is the Canadian.**

- A. Manufacturer: Provide products of Duradek/Durarail U.S. Inc., 1722 Iron Street, North Kansas City, MO 64116. ASD. Tel: (816) 421-5830. Fax: (816)421-2924.
- B. Manufacturer: Provide products of Duradek/Durarail Canada Ltd., 8288 129th Street, Surrey, BC V3W 0A6 Canada. ASD. Tel: (604) 591-5594. Fax: (604) 591-3100.
- C. **** NOTE TO SPECIFIER **** Delete one of the two following paragraphs; coordinate with Division 1 requirements.
- D. Requests for substitution will be considered in accordance with provisions of Section 01 60 00.
- E. Substitutions: Not permitted.

3.03 MATERIALS

- A. Traffic Membrane: Duradek Ultra; polyester reinforced PVC membrane with ultra-violet resistance, for fully-adhered installation with heat-welded seams and perimeter attachment.
 - 1. Sheet Width: 54 inches (1371.5 mm).and 72 inches (1828.8mm)
 - 2. Overall Sheet Thickness: 0.060 inch (1.5 mm).
 - 3. PVC Film Thickness: 0.050 inch (1.3 mm).
 - 4. Weight: 50 oz/sq yd (1695 g/sq m).
 - 5. Color: Ultra Classic Sandstone.
 - 6. Coefficient of Friction:

- a. Dry leather: 0.53.
 - b. Dry rubber: 0.89.
 - c. Wet leather: 0.62.
 - d. Wet rubber: 0.92.
 - e. ** NOTE TO SPECIFIER ** Ultra Classic, Marble, Supreme Chip, Heritage and Surcoseal.
 - f. ** NOTE TO SPECIFIER ** Delete one of the following two paragraphs.
 - 1) Flammability (ASTM E 108 and UBC Std 15-2): Class A, when installed over non-combustible substrate.
 - 2) Flammability (CAN/ULC-S107): Class A, when installed over non-combustible substrate.
 - 3) ** NOTE TO SPECIFIER ** The following three paragraphs cover Canadian requirements. Delete any of that are not applicable. Complete test reports are available upon request.
7. Comply with CAN/CGSB-37.54.
- a. National Building Code of Canada Compliance: Comply with National Building Code of Canada 2005, Part 9, Clause 9.26.2.1(1)(h), and CCMC Technical Guide for PVC Sheet Waterproofing (Exposed to Light Pedestrian Traffic), as evidenced by current Evaluation Report prepared by National Research Council, Canada Construction Materials Centre (CCMC).
 - b. CMHC Approval: Approved by Canada Mortgage and Housing Corporation for use in construction financed or insured under the National Housing Act.
 - c. ** NOTE TO SPECIFIER ** The following paragraph covers Uniform Building Code approval (US). Delete if not required. Complete test reports are available upon request.
 - d. International Building Code Compliance: Comply with 2006 International Building Code requirements for walking decks and ICC Acceptance Criteria for Walking Decks, as evidenced by current Evaluation Report prepared by ICC Evaluation Service (ICC-ES).
- B. Surface Conditioners, Adhesives, Sealants, Fillers, and Cleaners: As specified or provided by membrane manufacturer.
- C. Perimeter Fasteners: Mechanical fastening devices furnished by membrane manufacturer; color coordinated to membrane color.
- D. PVC Coated Metal, Scuppers, Overflow Drains, Roof Drains, and Trims furnished by membrane manufacturer.
- E. Adjacent Flashings: Specified in other sections; installed by others.

PART 2 EXECUTION

4.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work and conform to membrane manufacturer's requirements.
- B. Verify that deck is:
 - 1. Secure, well supported, solid, and in accordance with local code structural requirements.
 - 2. ** NOTE TO SPECIFIER ** The minimum slope is 1 in 100, or 1/8 inch per foot, with an optimum of 1 in 50. 1 in 50 slope, or 1/4 inch in 12 inches, is recommended for all new construction. Verify that other sections of the specification, or the drawings, include this requirement. For existing construction, verify existing slopes and coordinate details with manufacturer.

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3. Clean and smooth, free of depressions, waves, and projections, properly sloped to drains, valleys, or eaves.
 4. Dry and free of ice and snow.
- C. Verify that adjacent precast deck members are flush within 1/4 inch (6 mm) vertical variation, with grout keys filled flush.
- D. Notify the Architect of any conditions that would prevent satisfactory completion of the work. Do not proceed until unsatisfactory conditions are corrected.

4.02 PREPARATION

- A. Do not proceed with installation until substrate preparation is complete.
- B. Coordinate timing of installation to avoid construction traffic over completed traffic membrane surfaces.
- C. **** NOTE TO SPECIFIER **** If wood deck is to be the substrate, delete one of the following two paragraphs. The first is for wood deck without any overlay - combustible. The second is for a non-combustible application. The minimum wood deck that is acceptable is 5/8 inch thick exterior plywood, CDX grade, with tongue-and-groove edges. Verify that other sections of the specification, or the drawings, include these requirements.
- D. Wood Deck: Fill joints, knot holes, voids, and low areas with filler and sand smooth.
- E. Wood Deck: Cover with cementitious board meeting requirements of Class A approved application. Fill joints, knot holes, voids, and low areas with filler and sand smooth.
- F. **** NOTE TO SPECIFIER **** Concrete deck must have a steel troweled finish. Verify that the concrete sections of the specification include this requirement.
- G. Concrete Deck: Fill surface imperfections and variations with leveling compound. Test for and remove surface contaminants.
- H. Coordinate installation with installation of drains and similar accessories.

4.03 INSTALLATION

4.04 **** NOTE TO SPECIFIER **** In the U.S., delete the requirement for compliance with CGSB-37-GP-55M in the paragraph below.

- A. Install in accordance with manufacturer's instructions, applicable codes, and CGSB-37-GP-55M.
- B. Do not install when temperature is below 25 degrees F (minus 3.8 degrees C) or above 98 degrees F (36.6 degrees C). Do not install when winds are gusting over 30 mph (48.3 kph).
- C. Do not dilute primers, adhesives, coatings, or sealants.
- D. Install membrane with minimum number of seams possible. Overlap seams 3/4 inch (19 mm), to shed water; heat-weld all seams.
- E. Adhere membrane to substrate.
- F. Mechanically fasten all perimeter edges and penetrations.
- G. Install flashings and accessories. Seal around all penetrations, drains, and edges.

4.05 ADJUSTING AND CLEANING

- A. Clean soiled areas in accordance with manufacturer's recommendations.
- B. Repair damaged areas to match original materials.

4.06 PROTECTION

- A. Protect finished work from traffic using durable temporary materials.

END OF SECTION

SECTION 07 4646

FIBER CEMENT SIDING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood-fiber cement siding.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's requirements for related materials to be installed by others.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods, including nail patterns.
- C. Test Report: Applicable model code authority evaluation report (e.g. ICC-ES).
- D. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
- E. Warranty: Submit copy of manufacturer's warranty, made out in Owner's name, showing that it has been registered with manufacturer.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified in this section with minimum 3 years of experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Store products under waterproof cover and elevated above grade, on a flat surface.

PART 2 PRODUCTS

2.01 SIDING

- A. Lap Siding: Individual horizontal boards made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C 1186 Type A Grade II; with machined edges, for nail attachment.
 - 1. Style: Standard lap style.
 - 2. Texture: Smooth.
 - 3. Length: 12 ft (___ m), nominal.
 - 4. Width (Height): 7-1/4 inches (184 mm).
 - 5. Thickness: 5/16 inch (8 mm), nominal.
 - 6. Finish: Factory applied topcoat.
 - 7. Color: As indicated on drawings.
 - 8. Warranty: 50 year limited; transferable.
 - 9. Lap Siding Manufacturers:
 - a. CertainTeed Corporation: www.certainteed.com.
 - b. James Hardie Building Products, Inc: www.jameshardie.com.
 - c. Nichiha USA, Inc: www.nichiha.com.
 - d. Substitutions: See Section 01 6000 - Product Requirements.

2.02 ACCESSORIES

- A. Trim: HARDIE 4/4 BOARD, SMOOTH, ARCTIC WHITE.

- B. Fasteners: Galvanized or corrosion resistant; length as required to penetrate minimum 1-1/4 inch (32 mm).
- C. Joint Sealer: As specified in Section 07 9005.

PART 3 EXECUTION

3.01 PREPARATION

- A. Examine substrate and clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Do not begin until unacceptable conditions have been corrected.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions and recommendations.
 - 1. Read warranty and comply with all terms necessary to maintain warranty coverage.
 - 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
 - 3. Use trim details indicated on drawings.
 - 4. Touch up all field cut edges before installing.
 - 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Over Wood and Wood-Composite Sheathing: Fasten siding through sheathing into studs.
- C. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.
- D. Do not install siding less than 6 inches (150 mm) from surface of ground nor closer than 1 inch (25 mm) to roofs, patios, porches, and other surfaces where water may collect.
- E. After installation, seal all joints except lap joints of lap siding. Seal around all penetrations. Paint all exposed cut edges.

3.03 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 07 6200

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, sheet metal roofing, _____, and other items indicated in Schedule.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

1.03 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements and standard details, except as otherwise indicated.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

- A. Pre-Finished Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; minimum 0.02 inch (0.6 mm) thick base metal, shop pre-coated with PVDF coating.
 - 1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
 - 2. Color: As selected by Architect from manufacturer's standard colors.

2.02 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Primer: Zinc chromate type.
- C. Sealant: Type ____ specified in Section 07 9005.
- D. Plastic Cement: ASTM D 4586, Type I.

2.03 GUTTER AND DOWNSPOUT FABRICATION

- A. Gutters: SMACNA Architectural Sheet Metal Manual, Rectangular profile.
- B. Downspouts: Rectangular profile.
- C. Gutters and Downspouts: 5" indicated.
- D. Accessories: Profiled to suit gutters and downspouts.
 - 1. Anchorage Devices: In accordance with SMACNA requirements.
 - 2. Gutter Supports: Brackets.
 - 3. Downspout Supports: Brackets.
- E. Downspout Boots: Steel.
- F. Seal metal joints.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
- B. Apply plastic cement compound between metal flashings and felt flashings.

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- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Seal metal joints watertight.
- E. Secure gutters and downspouts in place using concealed fasteners.
- F. Slope gutters 1/4 inch per foot (20 mm/m) minimum.
- G. Connect downspouts to downspout boots. Grout connection watertight.

3.02 SCHEDULE

END OF SECTION

SECTION 08 1500

VINYL DOORS

REFER TO MANUFACTURER'S DIRECTIONS FOR INSTALLATION AND HANDLING OF MATERIALS.

THERMA TRU STD S118LE FULL LITE,, ZINC HINGE, PRIMED, 32.5"X82.5" (CONTRACTOR TO FIELD VERIFY).

END OF SECTION

SECTION 08 5313

VINYL WINDOWS

PART 1 GENERAL

1.01 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work, installation requirements, and _____.
- C. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.02 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum ____ years of experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Tubular Plastic Windows:
 - 1. MILGARD; Product TUSCANY 8120T, HV, DUAL GLAZED.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 COMPONENTS

- A. Windows: Extruded, hollow, tubular, ultra-violet resistant polyvinyl chloride (PVC) with integral color; factory fabricated; with vision glass, related flashings, anchorage and attachment devices.
 - 1. Color: White.
- B. Frames: ____ inch (____ mm) wide x ____ inch (____ mm) deep profile; flush glass stops of screw fastened type.

2.03 FABRICATION

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install window units in accordance with manufacturers instructions.
- B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.

END OF SECTION

SECTION 09 6700

FLUID-APPLIED FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fluid-applied flooring and base.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available; and _____.
- C. Samples: Submit two samples, ____x____ inch (____x____ mm) in size illustrating color and pattern for each floor material for each color specified.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.04 FIELD CONDITIONS

- A. Maintain minimum temperature in storage area of 55 degrees F (13 degrees C).
- B. Store materials in area of installation for minimum period of 24 hours prior to installation.
- C. Maintain ambient temperature required by manufacturer 72 hours prior to, during, and 24 hours after installation of materials.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Fluid-Applied Flooring:
 - 1. RHINO LINING; Product TUFF GRIP.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 MATERIALS

- A. Fluid-Applied Flooring Type ____: Urethane, single component, thermosetting, colored with mineral filler, with aggregate embedded in base coat.
 - 1. Product: TUFF GRIP manufactured by RHINO LINING.
 - 2. Base Coat: 1/8 inch (3 mm) thick; _____ color.
 - 3. Aggregate: Small quartz chips, "CLEAR BURST AGGREGATE" CLEAR color.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive flooring.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive flooring.
- C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of materials to sub-floor surfaces.
- D. Verify that wood sub-floors have 12 percent maximum moisture content.

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- E. Verify that concrete sub-floor surfaces are ready for flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by flooring materials manufacturer.
- F. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

- A. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with sub-floor filler.
- B. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Grind irregularities above the surface level. Prohibit traffic until filler is cured.
- C. Vacuum clean substrate.
- D. Apply primer to surfaces required by flooring manufacturer.

3.03 INSTALLATION - FLOORING

- A. Apply in accordance with manufacturer's instructions.
- B. Apply each coat to minimum thickness indicated.
- C. Finish to smooth level surface.

END OF SECTION

SECTION 09 9000

PAINTING AND COATING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints, stains, varnishes, and other coatings.
- C. Surfaces to be finished are indicated in this section and on the Drawings.

1.02 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association; current edition, www.paintinfo.com.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Master Painters and Decorators Association; 2004.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of all products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system (copy of relevant MPI Manual page is acceptable).
 - 4. Manufacturer's installation instructions.
 - 5. If proposal of substitutions is allowed under submittal procedures, explanation of all substitutions proposed.
- C. Samples: Submit three paper "drop" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.
 - 2. Where sheen is not specified, discuss sheen options with Architect before preparing samples, to eliminate sheens definitely not required.
 - 3. Allow 30 days for approval process, after receipt of complete samples by Architect.
 - 4. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.

1.04 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

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- A. Paints and Coatings: Any manufacturer listed in MPI Approved Products List (at www.paintinfo.com) under applicable MPI product reference number, unless otherwise indicated.
- B. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- C. Provide all paint and coating products from the same manufacturer to the greatest extent possible.
- D. In the event that a single manufacturer cannot provide all specified products, minor exceptions will be permitted provided approval by Architect is obtained using the specified procedures for substitutions.
- E. Substitutions: See Section 01 6000 - Product Requirements.

2.02 MATERIALS - GENERAL

- A. Volatile Organic Compound (VOC) Content:
 - 1. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- B. Paints and Coatings: Provide products listed in Master Painters Institute Approved Product List, current edition available at www.paintinfo.com, for specified MPI Categories, except as otherwise indicated.
 - 1. Provide ready mixed paints and coatings, except field-catalyzed coatings.
 - 2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.03 PAINT SYSTEMS

- A. Provide Premium Grade systems (2 top coats) as defined in MPI Architectural Painting Specification Manual, except as otherwise indicated.
- B. Where a specified paint system does not have a Premium Grade, provide Custom Grade system.
- C. Provide colors as directed by Architect.

2.04 EXTERIOR PAINT SYSTEMS

- A. Structural Steel and Metal Fabrications:
- B. Dimension Lumber:
 - 1. Applications include but are not limited to columns.

PART 3 EXECUTION

3.01 SCOPE -- SURFACES TO BE FINISHED

- A. Paint all exposed surfaces except where indicated not to be painted or to remain natural; the term "exposed" includes areas visible through permanent and built-in fixtures when they are in place.
- B. Paint the surfaces described in PART 2, indicated on the Drawings, and as follows:
 - 1. If a surface, material, or item is not specifically mentioned, paint in the same manner as similar surfaces, materials, or items, regardless of whether colors are indicated or not.

2. Paint surfaces behind movable equipment and furnishings the same as similar exposed surfaces.
 3. Paint surfaces to be concealed behind permanently installed fixtures, equipment, and furnishings, using primer only, prior to installation of the permanent item.
 4. Paint back sides of access panels and removable and hinged covers to match exposed surfaces.
 5. Paint interior surfaces of air ducts and convactor and baseboard heating cabinets with flat, nonspecular black paint where visible through registers, grilles, or louvers.
 6. Paint dampers exposed behind louvers, grilles, and convactor and baseboard cabinets to match face panels.
- C. Do Not Paint or Finish the Following Items:
1. Items fully factory-finished unless specifically noted; factory-primed items are not considered factory-finished.
 2. Items indicated to receive other finish.
 3. Items indicated to remain naturally finished.
 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.

3.02 EXAMINATION

- A. Verify that surfaces are ready to receive Work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials; report incompatible primer conditions and submit recommended changes for Architect's approval.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 1. Exterior Wood: 15 percent, measured in accordance with ASTM D 4442.

3.03 PREPARATION

- A. Prepare surfaces as specified in MPI Architectural Painting Specification Manual and as follows for the applicable surface and coating; if multiple preparation treatments are specified, use as many as necessary for best results; where the Manual references external standards for preparation (e.g. SSPC standards), prepare as specified in those standards; comply with coating manufacturer's specific preparation methods or treatments, if any.
- B. Coordinate painting work with cleaning and preparation work so that dust and other contaminants do not fall on newly painted, wet surfaces.
- C. Surface Appurtenances: Prior to preparing surfaces or finishing, remove electrical plates, hardware, light fixtures, light fixture trim, escutcheons, machined surfaces, fittings, and similar items already installed that are not to be painted.
 1. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before preparation and finishing.
 2. After completing painting in each space or area, reinstall items removed using workers skilled in the trades involved.
- D. Surfaces: Correct defects and clean surfaces which affect work of this section. Remove or repair existing coatings that exhibit surface defects.
- E. Marks: Seal with shellac those which may bleed through surface finishes.

- F. Impervious Surfaces: Remove mildew by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- G. Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
- H. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

3.04 APPLICATION

- A. Apply products in accordance with manufacturer's instructions and as specified or recommended by MPI Manual, using the preparation, products, sheens, textures, and colors as indicated.
 - 1. Remove, refinish, or repaint work not complying with requirements.
- B. Do not apply finishes over dirt, rust, scale, grease, moisture, scuffed surfaces, or other conditions detrimental to formation of a durable coating film; do not apply finishes to surfaces that are not dry.
- C. Use applicators and methods best suited for substrate and type of material being applied and according to manufacturer's instructions.
 - 1. Brush Application: Use brushes best suited for the type of material applied; use brush of appropriate size for the surface or item being painted; produce results free of visible brush marks.
 - 2. Roller Application: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
 - 3. Spray Application: Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
 - 4. Where application method is listed in the MPI Manual for the paint system that application method is required; otherwise any application method recommended by manufacturer for material used and objects to be painted is acceptable.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate; provide total dry film thickness of entire system as recommended by manufacturer.
 - 1. Number of coats and film thickness required are the same regardless of application method.
 - 2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance.
 - 3. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive dry film thickness equivalent to that of flat surfaces.
- E. Apply finish to completely cover surfaces with uniform appearance without brush marks, runs, sags, laps, ropiness, holidays, spotting, cloudiness, or other surface imperfections.
 - 1. Before applying finish coats, apply a prime coat of material recommended by manufacturer, unless the surface has been prime coated by others; where evidence of suction spots or unsealed areas in first coat appear, recoat primed and sealed surfaces to ensure finish coat with no burn through or other defects due to insufficient sealing.
 - 2. Apply first coat to surface that has been cleaned, pretreated, or otherwise prepared as soon as practical after preparation and before subsequent surface deterioration.
 - 3. Do not apply succeeding coats until the previous coat has cured as recommended by manufacturer.

4. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat will not cause the undercoat to lift or lose adhesion.
5. If manufacturer's instructions recommend sanding to produce a smooth, even surface, sand between coats.
6. Before applying next coat vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

3.05 CLEANING AND PROTECTION

- A. Collect waste material which may constitute a fire hazard, place in closed metal containers, and remove daily from site.
- B. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from site.
- C. Protect other work, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting as approved by Architect.
- D. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in MPI Manual.

END OF SECTION

SECTION 09 9000

PAINTING AND COATING

PART 2 PRODUCTS

1.01 MANUFACTURERS

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
 - 1. Base Manufacturer: See Section 09 9100.
- C. Transparent Finishes:
 - 1. Base Manufacturer: See Section 09 9300.
- D. Substitutions: See Section 01 6000 - Product Requirements.

1.02 PAINTS AND COATINGS - GENERAL

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
 - 1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each coating material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Volatile Organic Compound (VOC) Content:
 - 1. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

1.03 STAINS AND TRANSPARENT FINISH SYSTEMS - SEE SECTION 09 9300

PART 3 EXECUTION

2.01 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

2.02 APPLICATION

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- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance.
- D. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- E. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

END OF SECTION

SECTION 09 9300

STAINING AND TRANSPARENT FINISHING

PART 1 GENERAL

1.01 SUMMARY

- A. Transparent wood finish systems for field application.
- B. Additional product requirements, execution, and surfaces not to be finished are specified in Section 09 9000.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Base Manufacturer:
 - 1. Pratt & Lambert Paints: www.prattandlambert.com.
 - 2. Products of other manufacturers may be used under conditions specified in Section 09 9000.
- B. Sanding Sealers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

PART 3 EXECUTION (SEE SECTION 09 9000)

END OF SECTION

SECTION 10 7400

VINYL SHUTTERS

LARSON SHUTTER COMPANY

1.01 Mid America vinyl Shutters - Decorative Custom Size Vinyl Shutters

1.02 Straight top, open louver custom vinyl shutters

1.03 Code: V-CUS-L6

- A. 40 year manufacturers warranty.
- B. Choose from custom lengths in 1/4" increments.
- C. Includes your choice of color matched mounting hardware: Vinyl Shutter-Loks or Metal Screws.
- D. Custom size vinyl shutters are a Multi-piece component built design.
- E. Wood grain texture adds nice detail to these shutters.
- F. Material: Color-Through Polypropylene co-polymer (paintable shutters: Polystyrene)
- G. Vinyl shutters are for decorative use and are a hollow backed design with detail on front of shutter only.
- H. 18"x42" - for small windows
- I. 18"x55" - for large windows

END OF SECTION

SECTION 26 5600

EXTERIOR LIGHTING

PHILLIPS FORECAST

HOLLYWOOD HILLS OUTDOOR WALL 1LT DEEP BRONZE ETCH WHITE OPAL

CATALOG NUMBER F8496-68

END OF SECTION

SECTION 26 5601

EXTERIOR LIGHTING

PHILLIPS FORECAST

HOLLYWOOD HILLS FLUSH MOUNT 2LT CFL DEEP BRONZE ETCH WHITE OPAL

CATALOG NUMBER F8492-68U

END OF SECTION