

- A. Coordinate work under provisions of Section 01039.
 - B. Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware.
- 1.13 WARRANTY
- A. Provide five year warranty under provisions of Section 01700.
 - B. Warranty: Include coverage for door closers.
- 1.14 MAINTENANCE MATERIALS
- A. Provide maintenance materials under provisions of 01700.
 - B. Provide special wrenches and tools applicable to each different or special hardware component
 - C. Provide maintenance tools and accessories supplied by hardware component manufacturer.
- 1.15 EXTRA MATERIALS
- A. Furnish under provisions of Section 01700.
- 1.16 ACCEPTABLE MANUFACTURERS
- A. Hinges: Schlage or Sargeant.
 - B. Pivots: Schlage or Sargeant
 - C. New Latch Sets: Corbin.
 - D. Hospital Latches: Sargent
 - E. Push/Pulls: Schlage or Burns.
 - F. New Cylinder Locks: Corbin.
 - G. Mortise Locks: Corbin.
 - H. Electric Locks: Adams Rite or Sargeant.
 - I. Exit Devices: Sargeant
 - J. Closers: Sargeant.
 - K. Overhead Holders: Sargeant.
 - L. Manual Bolts: Sargeant.
 - M. Gasketing: National Guard Products.
 - N. Protection Plates: Sargeant.

SECTION 08710

DOOR HARDWARE

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Hardware for wood doors.
- B. Thresholds.
- C. Weatherstripping, seals and door gaskets.

1.2 RELATED SECTIONS

- A. Section 08111 - Standard Steel Doors
- B. Section 08211 - Flush Wood Doors
- C. Section 08112 - Standard Steel Frames.
- D. Section 10441 - Plastic Signs.

1.3 REFERENCES

- A. ADAAG - Americans with Disability Act Accessibility Guidelines for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. NFPA 80 - Fire Doors and Windows.
- C. AWI - Architectural Woodwork Institute - Quality Standards.
- D. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures.
- E. NFPA 252 - Fire Tests of Door Assemblies.
- F. UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate locations and mounting heights of each type of hardware, push & kick plates, Masterkeying designation and signage.
- C. Submit manufacturer's parts lists, templates, and maintenance recommendations.
- D. Samples: Submit 1 sample of hinge, latchset, Push & Kick Plates, illustrating style, color, and finish.
- E. Samples: Will be returned to supplier.

2.8 FINISHES

- A. Exterior Surfaces: Cladding of white color.
- B. Interior Surfaces: Transparent as specified in Section 09900.
- C. Screens: Black color or as selected by Architect from samples provided by manufacturers.
- D. Operators: Grey baked enamel.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site opening conditions under provisions of Section 01039.
- B. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.2 INSTALLATION

- A. Install window frames, and hardware 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, aligning with adjacent work.
- D. Install sill and stool.
- E. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

- F. Coordinate attachment and seal of perimeter air and vapor barrier materials.

- G. Install operating hardware.

- H. Install glass in accordance with Section 08800, to glazing method required to achieve performance criteria.

- I. Install perimeter sealant to method required to achieve performance criteria, backing materials, and installation criteria in accordance with Section 07900.

3.3 TOLERANCES

- A. Maximum Variation from Level or Plumb: 0.06 inches every 3 ft non-cumulative or 0.5 inches per 100 ft, whichever is less.

3.4 ADJUSTING

- A. Adjust work under provisions of Section 01700.
- B. Adjust operating hardware for smooth operation.

B. Protect pre-finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings which bond when exposed to sunlight or weather.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. Do not install sealants when ambient temperature is less than 40 degrees F.
- B. Maintain this minimum temperature during and after installation of sealants.

1.12 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings .

1.13 WARRANTY

- A. Provide 20 year warranty under provisions of Section 01700.
- B. Warranty: Include coverage for delamination or separation of finish cladding from window member.

2 PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Anderson Product Permashield.
- B. Other acceptable manufacturers offering equivalent Products.
 - 1. Peachtree.
- C. Substitutions: Under provisions of Section 01600.

2.2 MATERIALS

- A. Wood: Clear fir species, clear preservative treated to ANSI/NWWDA IS-4 of type suitable for transparent or opaque interior finish.
- B. Metal Cladding (Exterior Surface): Formed aluminum, pre-finished, shop fit to profile of wood members, and exterior exposed surfaces.
- C. Fasteners: Galvanized steel.

2.3 COMPONENTS

- A. Frames: 1 inch wide x 5-1/2 inch deep profile; flush glass stops of screw fastened type.
- B. Mullion: 2 inch wide 4 inch deep profile.
- C. Simulated Muntin Panels: Formed wood construction, 7/8 x 1/2 inch grid openings, color as selected by Architect and shown on drawings.
- D. Sills: 1-3/4 inch nominal thickness, extruded aluminum or plastic clad wood; sloped for positive wash; fit under sash to project 1/2 beyond wall face; one piece full width of opening.

SECTION 08610

WOOD WINDOWS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Shop fabricated clad wood windows with fixed and operating sash; shop glazed.
- B. Operating hardware and insect screens.
- C. Perimeter sealant.

1.2 RELATED SECTIONS

- A. Section 06112 - Framing and Sheathing: Framed openings.
- B. Section 07190 - Vapor and Air Barriers: Perimeter vapor and air seal between window frame and adjacent construction.
- C. Section 07900 - Joint Sealers: Perimeter sealant and back-up materials.
- D. Section 08800 - Glazing.
- E. Section 09900 - Painting: Site finishing wood surfaces.

1.3 REFERENCES

- A. ASTM E283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
- B. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- C. ANSI/NWDA IS-2 - Wood Windows.
- D. ANSI/NWDA IS-4 - Water Repellent Preservative Non-Pressure Treatment for Millwork.
- E. ASTM D1784 - Rigid Poly (Vinylchloride) (PVC) Compounds and Chlorinated Poly (Vinylchloride) (CPVC) Compounds.
- F. FS RR-W-365A - Wire Fabric (Insect Screening).

1.4 SYSTEM DESCRIPTION

- A. Windows: Wood Aluminum or plastic clad permitted sections, shop fabricated, vision glass, related flashings, anchorage and attachment devices.
- B. Configuration: Fixed, non-operable and vertical sliding double hung sash.

1.5 PERFORMANCE REQUIREMENTS

- A. Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to

documented experience.

1.7 REGULATORY REQUIREMENTS

- A. Fire Rated Frame Construction: Conform to UL 10B.
- B. Installed Frame Assembly: Conform to NFPA 80 for fire rated class same as fire door.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600.
- B. Accept frames on site in manufacturer's packaging. Inspect for damage.

1.9 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

1.10 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate the work with frame opening construction, door and hardware installation.

2 PART 2 PRODUCTS

2.1 FRAME MANUFACTURERS

- A. Steelcraft Product Labeled Frames.
- B. Substitutions: Under provisions of Section 01600.

2.2 FRAMES

- A. Interior Frames: 16 gage thick material, base metal thickness.

2.3 ACCESSORIES

- A. Silencers: Resilient rubber, fitted into drilled hole.
- B. Removable Stops: Rolled steel, channel shape, mitered corners, prepared for countersink style tamper proof screws.
- C. Primer: Zinc chromate type.

2.4 FABRICATION

- A. Fabricate frames for drywall slip-on type.
- B. Mullions for Glazed Lights: Fixed type, of same profiles as jamb and head.
- C. Fabricate frames with hardware reinforcement plates welded in place.

2.3 DOOR CONSTRUCTION

- A. Face: Steel sheet in accordance with ANSI/SDI-100.
- B. Core: Mineral fiberboard; steel channel grid.

2.4 ACCESSORIES

- A. Primer: Zinc chromate type.

2.5 FABRICATION

- A. Fabricate doors with hardware reinforcement welded in place.
- B. Attach fire rated label to each door unit.

2.6 FINISH

- A. Primer: Baked Enamel.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions under provisions of Section 01039.
- B. Verify that opening sizes and tolerances are acceptable.

3.2 INSTALLATION

- A. Install doors in accordance with ANSI/SDI-100 and DHI.
- B. Coordinate installation of glass and glazing.
- C. Coordinate installation of doors with installation of frames specified in Section 08112 and hardware specified in Section 08710.

3.3 ERECTION TOLERANCES

- A. Maximum Diagonal Distortion: 1/8 inch measured with straight edge, corner to corner.

3.4 ADJUSTING

- A. Adjust work under provisions of Section 01700.
- B. Adjust door for smooth and balanced door movement.

3.5 SCHEDULE

- A. All Door Types: primed ready for site finish to size, rating and with hardware shown on drawing schedules.

END OF SECTION

SECTION 08111

STANDARD STEEL DOORS

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Non-rated; Fire rated steel doors.

1.2 RELATED SECTIONS

- A. Section 08112 - Standard Steel Frames.
- B. Section 08211 - Flush Wood Doors.
- C. Section 08712 - Door Hardware.
- D. Section 09900 - Painting: Field painting of doors.

1.3 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. ANSI/SDI-100 - Standard Steel Doors and Frames.
- C. ASTM C236 - Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot-Box.
- D. ASTM E152 - Methods of Fire Tests of Door Assemblies.
- E. ASTM E413 - Classification for Determination of Sound Transmission Class.
- F. Door Hardware Institute (DHI) - The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
- G. NFPA 80 - Fire Doors and Windows.
- H. NFPA 252 - Fire Tests for Door Assemblies.
- I. UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate door elevations, internal reinforcement, closure method, and cut-outs for glazing, and finish.
- C. Product Data: Indicate door configurations, location of cut-outs for hardware reinforcement
- D. Manufacturer's Installation Instructions: Indicate special installation instructions.

1. Prime joints substrates where indicated or where recommended by sealant manufacturer based on pre-construction joint sealer-substrate tests and or prior experience.
2. Apply primer to comply with sealant manufacturer's recommendations.
3. Confine primers to area of joint sealer bond.
4. Do not allow spillage or migration to adjoining surfaces.

G. Masking tape:

1. Use masking tape where required to prevent contact of sealant with adjoining surfaces which otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions except where more stringent requirements apply.

B. Sealant Backings:

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths which allow optimum movement capability.
2. Do not leave gaps between ends of joint fillers. Do not stretch twist, puncture, or tear joint fillers.
3. Install bond breaker tape between sealants and joint fillers, compression seals, or back of joints to prevent third side adhesion of sealant to back of joint.
4. Install compressible seals serving as sealant backings to comply with requirements indicated for joint fillers.

C. Installation of Fire-Stopping Sealant

1. Install sealant, including forming, packing, and other accessory materials to fill openings around mechanical and electrical services penetrating floors and walls to provide fire-stops with fire-resistance ratings indicated for floor or wall assembly in which penetration occurs. Comply with installation requirements established by testing and inspecting agency.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- H. Tool joints concave.

3.4 INSTALLATION CLEANING

- A. Clean work under provisions of 01700.
- B. Clean adjacent soiled surfaces.

Custom House Wharf - Marine Use Facility

- g. Use M: Mortar.
- h. Use G: Glass.
- i. Use A: Aluminum.

B. Elastomeric Sealant Standard:

1. Provide manufacturer's standard chemically curing, elastomeric sealant of base polymer indicated which complies with ASTM C920 requirements, including those referenced for Type, Grade, Class, and Uses.

2. One-part mildew-resistant silicone Sealant:

- a. Type S, Grade NS, Class 25, Uses NT, G, A, and as applicable to non-porous joint substrates indicated, O; formulated with fungicide; intended for sealing interior joints at plumbing fixtures.
- b. Product: Dow Corning Corp. Model Dow Corning 786, General Electric Co. Model SCS 1702, Pecora Corp. Model 863 #345 White, Rhone-Poulenc Inc. Model Rhodorsil 6B White, Sonneborn Building Products Division Rexnord Chemical Products Inc. Model OmniPlus, Tremco Inc. Model Proglaze White.

3. One or Two Part Non-Sag Urethane Sealant for Use NT:

- a. Type M, Grade NS, Class 25, and Uses NT, M, A, and, as applicable to joint substrates indicated, O; intended for sealing general interior and exterior non-traffic joints.
- b. Product: Bostik Construction Products Division Model Chem-Calk 900, Bostik Construction Products Division Model Chem-calk 2639, Mameco International Inc. Model Vulkem 116, Mameco International Inc. Model Vulkem 921, Pecora Corp. Model Dynatrol I, Products Research & Chemical Corp. Model Permapol RC-1, Sika Corp. Model Sikaflex 1a NS, Sika Corp Model Sikaflex-15LM, Sonneborn Building Products Division Rexnord Chemical Products Inc. Model Sonolastic NP 1, Tremco Inc. Model Dymonic.

C. Fire-Resistant Joint Sealers:

1. General: Provide manufacturer's standard fire-stopping sealant, with accessory materials, having fire resistance ratings indicated and established by testing identical assemblies per ASTM E814 by UL or other testing and inspecting agency acceptable to the Authorities Having Jurisdiction (AHJ).

2. One-Part Fire-Stopping Sealant:

- a. One-part elastomeric sealant formulated for use in a through-penetration fire-stop system for sealing opening around cables, conduit piping, and similar penetrations through walls and floors.
- b. Product: Dow Corning Corp. Model Dow Corning Fire Stop Sealant, General Products Division/3M Model 3M Fire Barrier Caulk CP-25, General Electric Co. Model RTV 7403, Standard Oil Engineered Materials Co. Model Fyre Putty.

D. Joint Sealant Backing:

1. General: Provide sealant backings of material and type which are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

SECTION 07900

JOINT SEALERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preparing substrate surfaces.
- B. Sealant and joint backing.
- G. Interior Joints in vertical surfaces and horizontal non-traffic Surfaces.
- H. Fire-Resistant Joint Sealers

1.2 RELATED SECTIONS

- A. Section 07270 - Firestopping: Sealants required in conjunction with firestopping.

1.3 REFERENCES

- A. ASTM C920 - Elastomeric Joint Sealants.
- B. ASTM D1056 - Flexible Cellular Materials - Sponge or Expanded Rubber.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, color availability and compatibility with substrates.
- C. Manufacturer's Installation Instructions: Indicate special procedures, surface preparation and priming requirements.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Maintain one copy copies of each document on site.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Applicator: Company who has successfully completed within the last 5 years minimum 10 joint sealer applications similar in type and size to that of this project.
- C. Firm who will assign mechanics from these earlier applications to this project, of which one will serve as lead mechanic.

1.7 DESIGN CRITERIA:

1.8 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate with the work of Section 07531 for installing flashing reglets and Section 04300 for placement of reglets.

PART 2 PRODUCTS

2.1 SHEET MATERIALS

- A. Aluminum Sheet: ASTM B209-81, .040 inches thick in profiles indicated on the drawings; Alloy 3105-H14 aluminum coated with a two-coat system of organic coating. The coating system consists of a 70% Kynar fluorocarbon base top coat which is applied over a quality matched primer. A was coat is applied over the same primer on the back side for additional protection.

2.2 MANUFACTURERS

- A. Product: AlumaKlad as manufactured by
Vincent Metals Building Products Group
724 24th Avenue
S.E. Minneapolis, Minnesota 55440
Phone: (800) 328-7772

2.3 ACCESSORIES

- A. Fasteners: Stainless steel
- B. Underlayment: ASTM D226, No. 15 asphalt saturated roofing felt.
- C. Slip Sheet: Rosin sized building paper.
- D. Sealant: Polyurethane type.
- E. Reglets: Surface mounted, galvanized steel; face and ends covered with plastic tape.

2.4 FABRICATION

- A. Form sections to match profiles indicated true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, minimum 4 inches wide, interlockable with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside ½ inch; miter and seam corners.
- E. Form material with flat lock seams.
- F. Fabricate corners from one piece with minimum 18 inch long legs; solder for rigidity, seal with sealant.
- G. Fabricate vertical faces to match existing profiles with bottom edge formed outward 1/4 inch and hemmed to form drip.

PART 3 EXECUTION

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions under provisions of Section 01039.
- B. Verify that substrate surfaces and wall openings are ready to receive work.

3.2 PREPARATION

- A. Before beginning the work, verify governing dimensions of building for aesthetic layout of vinyl panels.
- B. Examine, clean and repair any adjoining work or interfaces on which the installation of the siding is dependent for proper attachment.

3.3 INSTALLATION - BUILDING PAPER

- A. Install one layer of building paper horizontally on sheathed walls.
- B. Weather lap edges and ends minimum 12 inches.
- C. Stagger vertical joints.
- D. Staple in place.

3.4 INSTALLATION - SIDING

- A. Install siding and accessory starter strips, trim, etc. in accordance with manufacturer's instructions and "The Rigid Vinyl Siding Application Manual" published by the Society of the Plastics Industry.
- B. Install corner strips, closures and trim.
- C. Install metal flashings and internal and external corners, sills, and head of wall openings.
- D. Install sheets horizontally with edges overlapped.

3.5 INSTALLATION TOLERANCES

- B. Maximum Variation From Level: 1/4 inch / 10 feet.

END OF SECTION

SECTION 07460

VINYL SIDING - ALTERNATE 2

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sheathing paper.
- B. Solid Vinyl Siding and Accessories.
- C. Related trim, flashings, accessories, and fasteners.

1.2 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Section 06200 - Finish Carpentry: Supply of metal flashings and trim associated with Vinyl siding for placement by this Section.

1.3 RELATED SECTIONS

- A. Section 06112 - Framing and Sheathing: Sheathing paper.
- B. Section 06200 - Finish Carpentry: Exterior wood trim at windows, soffits and fascias.
- C. Section 07900 - Joint Sealers: Sealant at perimeter openings and dissimilar materials.

1.4 REFERENCES

- A. ASTM D3679 American Society for Testing Materials: Poly Vinyl Chloride (PVC) Siding.
- B. BOCA Research Report No. 85-36.
- C. APA - American Plywood Association.
- D. ICBO Report No. 3985.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data indicating materials, component profiles, fastening methods, jointing details, sizes, surface texture, finishes, accessories.
- C. Samples: Submit two samples 12 x 24 inch of siding, corner trim, an accessory trim extrusions in size illustrating surface texture and color.

1.6 QUALITY ASSURANCE

- A. Select materials in accordance with the following:
 - 1. Standard Specification for PVC Siding: ASTM D3769

- C. Apply lap cement at rate of approximately 1 1/4 gal/100 sq ft over underlayment starter strip.
- D. Starting from lower edge of eave, lay additional 36 inch wide strips of underlayment in lap cement, to produce a two ply membrane. Weather lap plies minimum 19 inches and nail in place. Lap ends minimum 6 inches. Stagger end joints of each consecutive ply.
- E. Extend eave protection membrane over entire roof surface.

3.4 INSTALLATION

- A. Conform to drawing details included in the NRCA manual.
- B. Use bedding compound for joints between metal and bitumen or metal and felts.
- C. Stagger transverse joints of roofing sheets.
- D. Provide formed metal pans for protrusions through roof. Fill pans watertight with plastic cement.
- E. Back paint surfaces in contact with dissimilar materials.

3.5 STANDING SEAM ROOFING

- A. Space standing seams at 20 inches oc.
- B. Lay sheets with long dimension perpendicular to eaves. Apply pans beginning at eaves.
- C. Lock cleats into seams.
- D. At eaves and gable ends, terminate roofing by hooking over edge strip.
- E. Finish standing seams 1-7/16 inch high on flat surfaces.
- F. Fold lower ends of seams at eaves over at 45 degree angle.
- G. Terminate standing seams at ridge and hips by turning down with tapered fold.
- H. Form valleys of sheets not exceeding 10 feet in length. Lap joints 12 inches in direction of drainage.
- I. Extend valley sheet minimum 12 inches under roofing sheets.
- J. At valley, double fold valley and roofing sheets and secure with cleats spaced 18 inches oc.

3.6 FIELD QUALITY CONTROL

- A. Field inspection will be performed under provisions of Section 01400.

1.6 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal roof installations with minimum five years documented experience.

1.7 MOCKUP

- A. Provide mockup of sheet metal roofing system under provisions of Section 01400.
- B. Construct mockup, full roof length long by 6 feet wide, which includes associated attachments, flashings, joints and junctions, control or expansion joints, terminating items, ice dam protection, and snow jacks.
- C. Locate where directed by Architect.
- D. Mockup may remain as part of the Work if accepted by Architect.

1.8 PRE-INSTALLATION CONFERENCE

- A. Convene one week prior to commencing work of this section, under provisions of Section 01039.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01600.
- B. Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials which may cause discoloration or staining.

1.10 COORDINATION

- A. Coordinate work under provisions of Section 01039.

1.11 WARRANTY

- A. Provide two year warranty under provisions of Section 01700.
- B. Warranty: Include coverage for degradation of metal finish, water tightness, and integrity of seals.

PART 2 PRODUCTS

2.1 FABRICATORS

- A. Ideal Roofing Company, Ltd. Product: Heritage Series 24 gauge panel with Kynar finish
- B. Substitutions: Under provisions of Section 01600.

2.2 SHEET MATERIALS

- A. Pre-Coated Galvanized Steel: ASTM A653, SQ Grade 33, 10,000 series Kynar 500 coating; 24 gage core steel.

2.3 ACCESSORIES

- B. Secure in place with nails at 12 inches oc. Conceal fastenings.
 - C. Flash and seal work projecting through or mounted on roofing with plastic cement, weather tight.
- 3.6 INSTALLATION - ASPHALT SHINGLES
- A. Install shingles in accordance with manufacturer's instructions.
 - B. Place shingles in straight coursing pattern with 5 inch weather exposure to produce double thickness over full roof area. Provide double course of shingles at eaves.
 - C. Project first course of shingles 1 inch beyond fascia boards and resting on metal flashing drip edge.
 - D. Extend shingles 1" inch beyond face of gable edge fascia boards and resting on metal flashing drip edge.
 - E. Cap ridges with individual shingles, maintaining 4 inch weather exposure. Place to avoid exposed nails.
 - F. After installation, nail each shingle with two galvanized box nails 1 inch from edge of shingle corner to prevent lifting.
 - G. Coordinate installation of roof mounted components or work projecting through roof with weather tight placement of counter flashings.
 - H. Complete installation to provide weather tight service.

3.7 FIELD QUALITY CONTROL

- A. Field inspection will be performed under provisions of Section 01400 .
- B. Visual inspection of the Work will be provided by Owner.

3.8 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01500.
- B. Do not permit traffic over finished roof surface.

END OF SECTION

- B. Maintain one copy of document on site.

1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable code for UL 580 wind uplift for shingle types specified.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of specified products.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not install eave protection and shingles when wind chill temperatures are below 50 degrees F.

1.7 EXTRA MATERIALS

- A. Furnish under provisions of Section 01700.

- B. Provide 100 sq ft of extra shingles of color specified.

2 PART 2 PRODUCTS

2.1 MANUFACTURERS - ASPHALT SHINGLES

- A. Certainteed "Landmark 30" fiberglass composition shingles at 265 lb. per square, 30 year product, U.L. Class A Fire resistance, ASTM D3462.
- B. Substitutions: Under provisions of Section 01600.

2.2 ASPHALT SHINGLES

- A. Asphalt Shingles: ANSI/ASTM D3018, Class A with Type I - Self Sealing; UL Rating of A and Wind Resistance Label, glass fiber mat base, mineral granule surface type; 265 lb/square; self sealing type; square type; color as selected by Owner.

2.3 SHEET MATERIALS

- A. Eave (Ice Dam) Protection: Sheet barrier of rubberized asphalt bonded to sheet polyethylene, 40 mil total thickness, with strippable treated release paper, "Ice and Water Shield".
- B. Underlayment: Cellulose fiber building paper, water repellent breather type.

2.4 ACCESSORIES

- A. Nails: Standard round wire shingle type, hot dipped zinc coated steel minimum 13/64 inch head diameter and 0.080 inch shank diameter, 1-1/4 inch long of sufficient length to penetrate through roof sheathing 3/4 inch.
- B. Plastic Cement: ANSI/ASTM D2822, asphalt type with mineral fiber components, free of toxic solvents, capable of setting within 24 hours at temperatures of 75 degrees F and 50 percent RH.

2.5 FLASHING MATERIALS

- A. Sheet Flashings: ANSI/ASTM B209; 0.04 inch thick white "Kynar" finish aluminum formed for valleys.

I. Extend vapor and air barrier tight to full perimeter of adjacent window and door frames and other items interrupting the plane of membrane. Tape seal in place.

J. Coordinate vapor and air seal with Section 07190.

3.3 SCHEDULES

A. Attic Insulation: Two layers 12" faced and unfaced respectively laid perpendicular, R19 batt, faced for total R38 or as indicated on drawings.

B. Wall Insulation: R19 roll, unfaced; separate 6 mil vapor barrier.

C. Ceiling (Between Floors): R19 batt unfaced; supported by insulation mesh.

END OF SECTION

SECTION 07213

BATT AND BLANKET INSULATION

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Batt insulation in exterior wall, ceilings and roof construction.
- B. Batt insulation for filling perimeter window and door shim spaces, crevices in exterior wall and roof.

1.2 RELATED SECTIONS

- A. Section 07190 - Vapor and Air Barriers: Continuing vapor and air barrier materials to adjacent construction.
- B. Section 07212 - Board Insulation.
- C. Section 07270 - Firestopping.

1.3 REFERENCES

- A. FS HH-I-558 - Insulation, Blocks, Boards, Blankets, Felts, Sleeving (Pipe and Tube Covering), and Pipe Fitting Covering, Thermal (Mineral Fiber, Industrial Type).

1.4 PERFORMANCE REQUIREMENTS

- A. Materials of this Section shall provide continuity of thermal barrier at building enclosure elements.
- B. Materials of this Section shall provide continuity of vapor and air barrier at building enclosure elements.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on product characteristics, performance criteria and limitations.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.6 COORDINATION

- A. Coordinate Work under provisions of Section 01039.
- B. Coordinate the Work of Section 07190 for installation of vapor and air barrier seals.

2PART 2 PRODUCTS

- A. Substitutions: Under provisions of Section 01600.

2.1 MATERIALS

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not install solvent curing sealants in enclosed building spaces without ventilation.
- B. Maintain temperature and humidity recommended by the materials manufacturers before, during, and after installation.

1.9 SEQUENCING

- A. Sequence Work under the provisions of Section 01010.
- B. Sequence Work to permit installation of materials in conjunction with other retardant materials and seals.

1.10 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate the work of this Section with all Sections referencing this Section.

1.11 WARRANTY

- A. Provide three year warranty under provisions of Section 01700.
- B. Warranty: Include coverage of installed sheet materials which fail to achieve air tight seal.

2 PART 2 PRODUCTS

2.1 SHEET MATERIALS

- A. Sheet Barrier Type 1: Clear polyethylene film for below grade application, 10 mil thick for radon abatement underslab application.
- B. Sheet Barrier Type 2: 4 mil thick "TUTuP" clear polyethylene film or 4 mil thick "Super Sampson" hi-performance polyethylene film for exterior wall and soffit application.
- C. Sheet Barrier Type 3: 6 inch wide Perm-A-Barrier® Self-adhering, self-healing, construction grade tape as manufactured by W.R. Grace & Co., Grace Construction Products-Masonry Products Group, 7221 West Parkland Court, Milwaukee, WI. 53223 (800) 558-7066 for extension and sealing of building sheet vapor barriers through floor and roof framing interstitial spaces to wall-floor decks & wall-roof decks to maintain continuity of wall building vapor barriers.

2.2 ACCESSORIES

- A. Tape: Polyethylene self-adhering, self healing type, mesh reinforced, 2 inch wide, compatible with sheet material - type 1 for under-slab applications.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify condition of substrate and adjacent materials under provisions of Section 01039.
- B. Verify that surfaces and conditions are ready to accept the Work.

- A. Asphalt Emulsion: ASTM D1187.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate surfaces are durable, free of matter detrimental to adhesion or application of dampproofing system.
- B. Verify items which penetrate surfaces to receive dampproofing are securely installed.

3.2 PREPARATION

- A. Protect adjacent surfaces not designated to receive dampproofing.
- B. Clean and prepare surfaces to receive dampproofing in accordance with manufacturer's instructions.
- C. Do not apply dampproofing to surfaces unacceptable to manufacturer or applicator.
- D. Apply mastic to seal penetrations, small cracks, or minor honeycomb in substrate.

3.3 APPLICATION

- A. Apply cold bitumen with roller or spray application.
- B. Apply bitumen at a temperature limited by equiviscous temperature (EVT) plus or minus 25 degrees F; finish blowing temperature not to be exceeded for four hours.
- C. Apply bitumen in two coats, continuous and uniform, at a rate instructed by manufacturer for each coat.
- D. Apply from 2 inches below finish grade elevation to top of footings including footing-wall joinery.
- E. Seal items projecting through dampproofing surface with mastic. Seal watertight.

3.4 PROTECTION

- A. Allow Bitumen to dry 24 hours before applying rigid insulation or backfilling.
- B. Neatly fit rigid insulation tight around pipe and other projections.

3.5 DAMPROOFING SCHEDULE

- A. Interior of all steel door frames: Two coatings of asphalt dampproofing.

END OF SECTION

- F. Frame openings between trusses with lumber in accordance with manufacturers instructions.
- G. Coordinate placement of decking with work of this section.
- H. After erection, touch-up galvanized surfaces with primer consistent with shop coat.

3.4 TOLERANCES

- A. Framing Members: 1/2 inch maximum, from true position.

3.5 SCHEDULES

- A. Second & Third Floors: Various span floor trusses, 5-1/2" inch end bearing plates, various depths. See drawings.

END OF SECTION

1.4 SYSTEM DESCRIPTION

- A. Design floor live and dead load: 125 lbs/sq ft with deflection limited to 1/360.
- B. Design roof live and dead load: 65 lbs/sq ft with deflection limited to 1/240.
- C. Minimum Truss Depth To Accommodate Mechanical Ducts: 21 inch .

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate sizes and spacing of trusses, loads and truss cambers, and framed openings. Submit design calculations.
- C. Product Data: Provide truss configurations, bearing and anchor details, bridging and bracing details.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by ALSC.
 - 2. Plywood Grading Agency: Certified by APA.
- B. Truss Design, Fabrication, and Installation: in accordance with Truss Plate Institute BWT-76, HET-80, PCT-80 including Supplement, TPI-85 including Supplement, QST-88.
- C. Maintain one copy of each document on site.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience.
- B. Design trusses under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State of Maine.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for loads, seismic zoning, other governing load criteria, and fire retardant requirements.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600.
- B. Handle and erect trusses in accordance with TPI HET-80.
- C. Store trusses in vertical position resting on bearing ends.

1.10 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

1.11 MATERIALS

- A. Framing Members: 1/4 inch from true position, maximum.
 - B. Surface Flatness of Floor: 1/4 inch in 10 feet maximum, and 1/2 inch maximum in 30 feet
- 4.4 SCHEDULES
- A. Above Grade Joist, Rafter, and Stud Framing: S/P/F species, 19 percent maximum moisture content
 - B. Sloped Roof Sheathing: Plywood, 5/8 inch thick, 48 x 96 inch sized sheets, square edges.
 - C. Exterior Wall Sheathing: Plywood, 1/2 inch thick, 48 x 96 size sheets, square edges.
 - D. Subfloor Decking: Plywood, 3/4 inch thick, tongue and groove, 48 x 96 inch sized sheets.
 - E. Sillis: S/P/F species pressure treated to .60 retention.
 - F. Blocking: S/P/F species, 19 percent maximum moisture content

END OF SECTION

- G. Miscellaneous Framing: Stress Group D, Spruce species, 19 percent maximum moisture content, with pressure preservative treatment.

3.2 SHEATHING MATERIALS

- A. Plywood Roof Sheathing: APA Rated Sheathing, Span Rating 16"; Exposure Durability 1; unsanded.
- B. Plywood Wall Sheathing: APA Rated Sheathing, Span Rating 16"; Exposure Durability 1; sanded.
- C. Plywood Floor Sheathing: APA Rated Sheathing, Span Rating 16"; Exposure Durability 1; sanded.

3.3 UNDERLAYMENT MATERIALS

- A. Plywood Underlayment: APA Rated Sheathing, Span Rating 16"; Exposure Durability 1; sanded.

3.4 SHEATHING AND UNDERLAYMENT LOCATIONS

- A. Sloped Roof Sheathing: 5/8 inch thick, 48 x 96 inch sized sheets, square edges.
- B. Above Grade Wall Sheathing: 1/2 inch thick, 48 x 96 inch sized sheets, square edges.
- C. Floor Sheathing: 3/4 inch thick, 48 x 96 inch sized sheets, tongue and groove edges.
- D. Floor Underlayment: 1/2" inch thick, 48 x 96 inch sized sheets.

3.5 ACCESSORIES

- A. Fasteners and Anchors:
 - B. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing, length to achieve full penetration of sheathing substrate.
 - 1. Anchors: Toggle bolt type for anchorage to hollow masonry. Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolt or ballistic fastener for anchorages to steel.
 - C. Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions, as manufactured by Simpson.
 - D. Sill Gasket on Top of Foundation Wall: 1/2" inch thick, plate width, closed cell polyethylene foam from continuous rolls.
 - E. Subfloor Glue: APA AFG-01, waterproof of solvent base, air cure type, cartridge dispensed.
 - F. Building Paper: Spun bonded fabric as manufactured by TYPAR.

3.6 FACTORY WOOD TREATMENT

- A. Fire retardant: AWPA Treatment C20, Interior Type, chemically treated and pressure impregnated; capable of providing a maximum flame spread/smoke development rating of 25.
- B. Wood Preservative (Pressure Treatment): AWPA Treatment C1 using water borne preservative with 0.40 percent retainage.

4 PART 3 EXECUTION

SECTION 06112

FRAMING AND SHEATHING

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Structural floor, wall, and roof framing.
- B. Built-up structural beams and columns.
- C. Floor, wall, and roof sheathing.
- D. Sill gaskets and flashings.
- E. Preservative treatment of wood.
- F. Fire retardant treatment of wood.
- G. Miscellaneous framing and sheathing.
- H. Telephone and electrical panel boards.
- I. Concealed wood blocking for support of toilet and bath accessories, wall cabinets, and wood trim.

1.2 RELATED SECTIONS

- A. Section 05500 - Metal fabrications: Prefabricated steel structural supports.
- B. Section 06125 - Wood Decking.
- C. Section 06193 - Plated Connected Wood Trusses.
- D. Section 06112 - Framing and Sheathing: Window and Door openings to receive wood blocking.

1.3 REFERENCES

- A. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.
- B. ANSI A208.1 - Mat-Formed Wood Particleboard.
- C. ANSI/AHA A135.4 - Basic Hardboard.
- D. APA: American Plywood Association.
- E. AWPA (American Wood Preservers Association) C1 - All Timber Products Preservative Treatment by Pressure Process.
- F. AWPA (American Wood Preservers Association) C20 -Structural Lumber Fire Retardant Treatment by Pressure Process.

- C. Continuously seal joined members by continuous welds.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- E. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- F. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.3 FINISHES

- A. Prepare surfaces to be primed in accordance with SSPC SP 2.
- B. Do not prime surfaces in direct contact with concrete or where field welding is required.
- C. Prime paint items with one coat 2-3.5 Mills dry thickness.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. Beginning of installation means erector accepts existing conditions.

3.2 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply items required to be cast into concrete or embedded in masonry with setting templates, to appropriate sections.

3.3 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components indicated on shop drawings.
- D. Perform field welding in accordance with AWS D1.1.
- E. Obtain Architect/Engineer approval prior to site cutting or making adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

3.4 ERECTION TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

SECTION 05500

METAL FABRICATIONS

1PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Shop fabricated ferrous metal items, galvanized and prime painted.

1.2 PRODUCTS FURNISHED BUT NOT INSTALLED UNDER THIS SECTION

- A. Section 03300 - Cast-In-Place Concrete: Placement of metal fabrications in concrete.
- B. Section 04300 - Unit Masonry System
- C. Section 08112 - Standard Steel Frames: Placement of metal fabrications in masonry.

1.3 RELATED SECTIONS

- A. Section 05210 - Structural Steel: Structural steel column, sill and bond beam anchor bolts.
- B. Section 06193 - Plate Connected Wood Trusses: Structural wood floor truss bearing plate anchorage.
- C. Section 09900 - Painting: Paint finish.

1.4 REFERENCES

- A. ASTM A36 - Structural Steel.
- B. ASTM A53 - Hot-Dipped, Zinc-coated Welded and Seamless Steel Pipe.
- C. ASTM A123 - Zinc (Hot-Galvanized) Coatings on Products Fabricated From Rolled, Pressed and Forged Steel Shapes, Plates, Bars, and Strip.
- D. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- E. ASTM A283 - Carbon Steel Plates, Shapes, and Bars.
- F. ASTM A307 - Carbon Steel Externally Threaded Standard Fasteners.
- G. ASTM A325 - High Strength Bolts for Structural Steel Joints.
- H. ASTM A386 - Zinc-Coating (Hot-Dip) on Assembled Steel Products.
- I. ASTM A500 - Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Round and Shapes.
- J. ASTM A501 - Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- K. ASTM B177 - Chromium Electroplating on Steel for Engineering Use.

1.5 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC - Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.
- B. Perform Work in accordance with AISC - Specification for Architectural Exposed Structural Steel.
- C. Maintain one copy of each document on site.

1.6 QUALIFICATIONS

- A. Fabricator. Company specializing in performing the work of this Section with minimum three years documented experience.
- B. Erector. Company specializing in performing the work of this Section with minimum five years documented experience.
- C. Design connections not detailed on the Drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State of Maine.

1.7 FIELD MEASUREMENTS

- A. Verify that field measurements are as shown on Drawings and shop drawings as instructed by the manufacturer.

2 PART 2 PRODUCTS

2.1 MATERIALS

- A. Structural Steel Members: ASTM A36.
- B. Structural Tubing: ASTM A500, Grade B.
- C. Pipe: ASTM A53, Grade B.
- D. Shear Stud Connectors: ASTM A108, Grade 1015, forged steel, headed, uncoated.

2.2 Bolts, Nuts, and Washers: ASTM A307.

- A. Anchor Bolts: ASTM A307.
- B. Welding Materials: AWS D1.1; type required for materials being welded.
- C. Grout: Non-shrink type, pre-mixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing additives, capable of developing a minimum compressive strength of 7,000 psi at 28 days.
- D. Shop and Touch-Up Primer: SSPC Paint 15, Type 1, alkyd rust inhibitive primer with minimum 3.5 mils thickness.

2.2 FABRICATION

- A. Space shear stud connectors at 4 inches oc.

2.3 FINISH

location.

- B. Obtain Architect/Engineer approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

4.12 CLEANING

- A. Clean work under provisions of Section 01700.
- B. Remove excess mortar and mortar smears.
- C. Replace defective mortar. Match adjacent work.
- D. Clean soiled surfaces with cleaning solution.
- E. Use non-metallic tools in cleaning operations.

4.13 CMU UNIT SEALER

- A. Seal CMU wall with three coats Endur-o-seal silicate densifier as manufactured by Safe Step, Inc.; 516 Route 12A, Surry, New Hampshire 03431. Phone 603-358-0075. Apply as indicated in manufacturer's written instructions.

4.14 PROTECTION OF FINISHED WORK

- A. Protect finished installation under provisions of Section 01500.
- B. Without damaging completed work, provide protective boards at exposed external corners which may be damaged by construction activities.

4.15 SCHEDULES

- A. Elevator shaft: Reinforced Load Bearing single wythe 8" masonry with wire truss reinforcement.
- B. Exterior CMU bearing walls: Reinforced Load Bearing single wythe 8" masonry with wire truss reinforcement.

END OF SECTION

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Lay concrete masonry units in running bond. Course one unit and one mortar joint to equal 8 inches. Form concave mortar joints.

4.4 PLACING AND BONDING

- A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- B. Lay hollow masonry bearing units with face shell bedding on head and bed joints. Fill all cores completely and seal with 3 coats silicate densifier.
- C. Buttering corners of joints or excessive furrowing of mortar joints are not permitted.
- D. Remove excess mortar as Work progresses.
- E. Interlock masonry units at intersections, tees and external corners.
- F. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- G. Perform jobsite cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- H. Cut mortar joints flush where cavity insulation and vapor barrier adhesive is applied.
- I. Isolate masonry partitions from vertical structural framing members with a control joint. See Structural drawings for locations.
- J. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with 3/4 inch deflection joint as detailed on drawings.

4.5 REINFORCEMENT AND ANCHORAGES - UNIT MASONRY

- A. Install horizontal joint reinforcement 16 inches o.c.
- B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 each side of opening.
- C. Place joint reinforcement continuous in first and second joint below top of walls.
- D. Lap joint reinforcement ends minimum 12 inches. Extend minimum 16 inches each side of openings.
- E. Secure wall ties through wall cavity and embed into masonry veneer at maximum 16 inches o.c. vertically and 16 inches o.c. horizontally. Place at maximum 3 inches o.c. each way around perimeter of openings, within 12 inches of openings.

4.6 LINTELS

- A. Install loose steel lintels over window and door openings as scheduled on structural drawings.

Weather Masonry Construction.

- J. UL - Underwriters' Laboratories.

2.3 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Submit product data for masonry units and fabricated wire reinforcement.
- C. Submit samples under provisions of Section 01300.
- D. Submit manufacturer's certificate under provisions of Section 01400 that products meet or exceed specified requirements.
- E. Submit manufacturer's installation instructions under provisions of Section 01300.

2.4 QUALIFICATIONS

- A. Installer: Company specializing in performing the work of this Section with minimum three years documented experience.

2.5 REGULATORY REQUIREMENTS

- A. Conform to UL Assembly requirements for fire rated masonry construction.

2.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.
- C. Accept masonry units on site. Inspect for damage.

2.7 ENVIRONMENTAL REQUIREMENTS

- A. Maintain materials and surrounding air temperature to minimum 50 degrees F prior to, during, and 48 hours after completion of masonry work.

2.8 SEQUENCING AND SCHEDULING

- A. Coordinate work under provisions of Section 01041.
- B. Coordinate the masonry work with installation of door and window anchors and brick masonry.

3 PART 2 PRODUCTS

3.1 CONCRETE MASONRY UNITS

- A. Hollow Load Bearing Block Units: ASTM C90, Grade N, Type I - Moisture Controlled; normal weight.
- B. Solid Load Bearing Block Units: ASTM C145, Grade N, Type I - Moisture Controlled; normal weight.