passing through completed exterior wall assembly.

D. Apply fasteners so screw heads bear tightly against face of sheathing boards but do not cut into facing. E. Do not bridge building expansion joints with sheathing; cut and space edges to match spacing of structural support elements.
F. Vertical Installation: Install 48-inch wide gypsum sheathing boards vertically with vertical edges centered over flanges of steel studs. Abut ends and edges of each board with thos of adjacent boards. Screw—attach boards at perimeter and within field of board to each steel stud at approximately 8 inches (200 mm) o.c. and set back a minimum of 3/8 inch (9

mm) from edges and ends of boards.
G. Air—Infiltration Barrier Application: Cover sheathing with air—infiltration barrier as follows: Cut back air—infiltration barrier 1/2 inch (13 mm) on each side of break in supporting members at expansion— or control—joint locations.

2. Apply asphalt—saturated organic felt horizontally with 2—inch (50—mm) overlap and 6-inch (150-mm) end lap; fasten to sheathing with corrosion-resistant staples. 3. Apply proprietary building wrap to comply with manufacturer's written installation

4. Apply air-infiltration barrier to cover vertical flashing with 4-inch (100-mm) overlap. H. Sealing Sheathing Joints: Seal joints according to sheathing manufacturer's written recommendations and as follows: Apply elastomeric sealant on joints and fasteners and trowel flat. Apply sufficient quantity of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.

2. Apply glass—fiber sheathing tape to glass—mat gypsum sheathing board joints, and apply and trowel silicone emulsion sealant to embed sealant in entire face of tape. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other

A. Testing: Contractor will engage a qualified independent testing agency to perform field lity—control testing. Field and shop welds will be subject to inspection and testing.

Shear wall and roof decking attachments will be subject to inspection and testing Testing agency will report test results promptly and in writing to Contractor and Owner. Remove and replace Work that does not comply with specified requirements. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of corrected Work with specified requirements.

3.9 REPAIRS AND PROTECTION A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed metal framing with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions. Touchup Painting: Wire brush, clean, and paint scarred areas. welds. and rust spots on fabricated and installed prime-painted, cold-formed metal framing. Paint framing surfaces

with same type of shop paint used on adjacent surfaces.

C. Protect paper—surfaced gypsum sheathing that will be exposed to weather for more than 30 days by covering exposed exterior surface of sheathing with a securely fastened ir—infiltration barrier. Apply covering immediately after sheathing is installed. D. Protect cutouts, corners, and joints in sheathing by filling with a flexible sealant or by applying tape recommended by sheathing manufacturer at time sheathing is applied. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure cold-formed metal framing is without damage or deterioration at

SECTION 05500 - MISCELLANEOUS METALS

time of Substantial Completion.

PART 1 - GENERAL 1.1 DESCRIPTION

A. Description of Work: 1. Miscellaneous metal work includes items fabricated from iron and steel shapes, plates bars, strips, tubes, pipes and castings which are not a part of the structural steel of othe metal systems in other Sections of the Specifications, except as specified herein. he types of miscellaneous metal items include, but are not limited to the following:

a. Support Angles and Braces b. Angle and Channel Frames Roof Access Ladder

1.2 QUALITY ASSURANCE: A. Qualifications for Welding Work: Qualify welding processes and welding operators in accordance with the AWS D1.1 - "Standard Qualification Procedure". All welders shall be certified in accordance with AWS D1.1. B. Shop Assembly: Preassemble items in shop to greatest extent possible, so as to minimize field splicing and assembly of units at project site. Disassemble units only to extent necessary for shipping and handling limitations. Clearly mark units for reassembly and

PART 2 - PRODUCTS 2.1 MATERIALS: A. Metal Primer Paint: Use "10-99 Tnemec Primer." "Rustoleum No. 5769 Primer." or equal approved in advance by the Architect. Primer paint selected must be compatible with

2.2 FABRICATION, GENERAL:

 A. Workmanship:
 1. Use materials of size and thicknesses shown or if not shown of required size and thickness to produce adequate strength and durability in finished product for intended use.

Work to dimensions shown or accepted on shop drawings, using proven details of fabrication and support. Use type of materials shown or specified for various components of work.

2. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to a radius of approximately 1/32" unless otherwise shown. Form bent metal corners to smallest radius possible without causing arain separation

the required finish coats of paint. Coordinate selection of metal primer with finish paint

or otherwise impairing the work.

3. Form exposed connections with hairline joints which are flush and smooth. Use Phillips flathead (countersunk) screws or bolts for field connections and for bolting.

4. Weld corners and seams continuously and in accordance with recommendations of AWS D1.1. Grind exposed welds smooth and flush, to match and blend with adjoining surfaces. 5. Provide for anchorage of type shown coordinated with structure. Fabricate and space anchoring devices as shown and as required to provide adequate support for intended use of

6. Cut, reinforce, drill and tap miscellaneous metal work as may be required to receive finish hardware and similar items of work.

7. Use hot rolled steel bars for work fabricated from bar stock, unless work is shown or specified to be fabricated from cold-finish or cold-rolled stock 8. Connections: All connections shall be welded, unless otherwise shown on drawings or B. Shop Painting:

1. Shop paint all miscellaneous metal work except those members or portions of members to be embedded in concrete surfaces and edges to be field welded, unless otherwise specified 2. Remove scale, rust and other deleterious materials before the shop coat of paint applied. Clean off heavy rust and loose mill scale in accordance with SSPC SP-2 "Hand Tool Cleaning", or SSPC SP-3 "Power Tool Cleaning" or SSPC SP-7 "Brush-Off Blast Cleaning". Remove oil, grease and similar contaminants in accordance with SSPC SP-1, "Solvent

3. Apply one shop coat of metal primer paint to fabricated metal items, except apply 2 coats of paint to surfaces which are inaccessible after assembly or erection. Change color of second coat to distinguish it from the first. 4. Immediately after surface preparation, brush or spray on metal primer paint, applied in accordance with the manufacturer's instructions and at a rate to provide a uniform dry film thickness of 2.0 mils for each coat. Use painting methods which will result in full coverage

of joints, corner, edges and all exposed surfaces 2.3 MISCELLANEOUS METAL ITEMS:

A. Carpenter's Iron Work: 1. Furnish bent or otherwise custom fabricated bolts, plates, anchors, hangers, dowels and other miscellaneous steel and iron shapes as required for framing and supporting woodwork, and for anchoring or securing woodwork to concrete or other structures. malleable iron washers for heads and nuts which bear on wood structural connections: B. Miscellaneous Framing and Supports:

Provide miscellaneous steel framing and supports which are not a part of structural steel framework as required to complete work. 2. Fabricate miscellaneous units to sizes, shapes and profiles shown or, if not shown, of required dimensions to receive adjacent work to be retained by the framing. Except as otherwise shown, fabricate from structural steel shapes and plates and steel bars of all welded construction using mitered corners, welded brackets and splice plates and a minimum number of joints for field connection. Cut, drill and tap units to receive hardware and similar items to be anchored to work.

PART 3 - EXECUTION 3.1 INSTALLATION:

A. Anchorages: Furnish setting drawings, diagrams, templates, instructions and directions for installation of anchorages, such as concrete inserts, anchor bolts and miscellaneous items naving integral anchors, which are to be embedded in concrete construction. Coordinate delivery of such items to project site. B. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal items to in-place construction; including, threaded C. Cutting, Fitting and Placement: Perform cutting, drilling and fitting required for installation

laneous metal items. Set work accurately in location, alignment and eleve plumb, level, true and free of rack, measured from established lines and levels. Provide emporary bracing or anchors in formwork for items which are to be built into concrete, masonry or similar construction. D. Connections: Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind joints smooth and touch—up shop coat. Do not weld, cut or abrade surfaces of units which are galvanized and are intended for bolted or

E. Field Welding: Comply with AWS Code for procedures of manual shielded metal arc velding, appearance and quality of welds made, and methods used in correcting welding work. 3.2 FIELD PAINTING: A. Immediately after erection, clean field welds, bolted connections and abraded areas of shop paint. Wire brush and sand as necessary to obtain a smooth surface. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils.

SECTION 05600 - METAL CANOPIES PART 1 - GENERAL

A. Work included: Metal canopy decking, gutters, half-round fascia, LED Stall Stars, fabric patio canopy cover and frames, patio structure, and tower element. PART 2 - PRODUCTS

A. Canopy decking shall be $C12 - 12" \times 2-1/2"$ or 3" deep, roll formed panel. Panel shall be accurately roll formed from 26 ga. (embossed) carbon steel with baked polyester B. Guttershall be 3.5" deep by 4" wide. Product shall be accurately formed from .040 (embossed) aluminum with baked polyester painted finish.

C. Half-Round Fascia components shall be accurately formed from .050 aluminum with a baked polyester painted finish D. LED Stall Stars (red and yellow) shall be supplied as part of the half-round fascia system through the canopy vendors and shall be as manufactured by Osram—Sylvania or 3M

E. Fabric Patio Covering: Seaman Corporation's High Performance 8028 Architectural Fabric. Fabric Restraint System: GatorStitch F. Tower Arch components shall be accurately formed from 18 ga. steel with a baked polyester painted finish.

1. Decking: Gloss White 2. Gutter: Sherwin-Williams "Gray Area", SW7052 Half-Round Fascia & Tower Arch: Nichols Aluminum, Silver Metallic, DEV 5010, polyester 02.05, contact Larry Kistler, 563-324-2121

H. All trim pieces, angles, brackets, etc., shall be the same type and finish as adjacent material, unless specifically described in the drawings, and furnished by the same supplier of the other canopy materials to insure quality and consistency

2.2 MANUFACTURERS . Approved Vendors are:

. Ventaire Corporation, 4345 South 93rd East Ave., Tulsa, OK, 74147, (800) 324-5874, (918) 660-0419 fax. Contact: Westly Gibbs, weg@ventairecorp.com Mason Corporation, 123 W. Oxmoor Rd, Birmingham, AL 35209-6302, (800) 868-4100, (205) 945-4304 fax. Contact: David McKinley. dmckinley@masoncorp.con 3. Cherokee Metals Company, 4648 S. Old Peachtree Rd Norcross, GA 30071, (770) 449-1444, (770) 662-8019 fax. Contact: Tim Tennyson.

PART 3 - EXECUTION

Set structural members level and plumb in correct position

Construct load bearing framing members full length without splices.

A. Framing Members: 1/4 inch (6 mm) from true position, maximum.

permanent bracing. C. Place horizontal members, crown side up.

alternating lapping side members.

blocking between sheets.

PART 1 - GENERAL

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 INSTALLATION

PART 1 - GENERAL

MATERIALS

2.1 MANUFACTURERS / PRODUCTS

Additional acceptable manufactures:

SECTION 07210 - BUILDING INSULATION

. Owens-Corning, (419) 248-8000.

. The Celotex Corporation, (800) 523-4684.

length. ASTM C 665-latest edition, Type III, Class A

E. Rigid Roof Insulation (MODIFIED BITUMEN ROOFING):

Provide sizes to fit requirements of installation.

United States Gypsum. (877) 874-6655.

2. Johns-Mannville, (800) 654-3103

roofing vapor retardant, and parapet.

SECTION 07190 - AIR INFILTRATION BARRIER

B. Make provisions for erection loads, and for sufficient temporary bracing to maintain

structure safe, plumb, and in true alignment until completion of erection and installation of

. Double members at openings over 36 inches wide. Space short studs over and unde

openings to stud spacing. F. Bridge joists as indicated on the structural drawings. Fit solid blocking at ends of

members. G. Curb roof openings except where prefabricated curbs are provided. Form corners by

H. Coordinate curb installation with installation of decking and support of deck openings,

A. Secure roof sheathing with longer edge parallel to framing members and with ends

A. This section includes: Providing envelop moisture protection and sill plate sealer.

Tyvek Commercial Wrap D", manufactured by Dupont, (800) 44—TYVEK.

a. "#790 Silicone Building Sealant", by Dow Corning, (517) 496-6000

walls. Provide "Sonneborn" NP1 as manufactured by Chemrex, Inc., (800)433-9517.

b. "Elast-o-thane 227 type R", by Pacific Polymers International, (714) 898-0025.

joints and seal all joints with manufacturer's recommended tape.

B. Install sill plate sealer in two continuous beads minimum below sill plates and one

A. Clean exposed surfaces of work promptly after completion of installation.

. Install barriers in accordance with manufacturers recommendations. Provide adequate I

continuous bead along joint between slab and outside bottom edge of sill plate after sill plate

A. Work included: Provide thermal insulation in stud cavities at exterior walls, at roof, and as

otherwise shown on the Drawings, as specified herein, and as needed for a complete and

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in

the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

A. Acceptable Manufacturers: For the purpose of these specifications, products by

C Thermal Batt Insulation (Ext. Walls above gyp. board) : FSK faced blankets as

with 1/4" per 12" slope, installed as indicated on the drawings.

. Rigid Roof Insulation ("DURO-LAST" FLEXIBLE SHEET ROOFING)

manufactured by
Owens-Corning-Fiberglass Corporation. Provide standard sizes to fit stud spacing and

D. Rigid Under—slab Perimeter Insulation: (if shown on drawings) Foamular 150 extruded

1. The first layer shall be polyisocyanurate board, (2-1/2) thick, with an R-value of 15.6

manufacturer's recommendations and Factory Mutual 1—60 reauirements (unless otherwise

2. The second layer shall be 3/4" thick, perlite insulation board, with an R-value of 2.0,

installed with staggered joints, with hot—applied type IV asphalt bitumen.

3. Tapered insulation for crickets and slopes to drain shall be perlite, minimum 3/4" thick,

The first layer shall be polyisocyanurate board, 3" thick, with an R-value of 20.0 or

Installation shall be with mechanical fasteners in conformance with the manufacturer's

G. Tape and Sealer: Provide standard as recommended by manufacturer of insulation with

recommendations and Factory Mutual 1—60 requirements (unless otherwise required).

Tapered insulation for crickets and slopes to drain shall be polyisocyanurate board.

3/4" thick, with 1/4" per 12" slope, installed as indicated on the drawings.

er. Installation shall be with mechanical fasteners in conformance with the

polystyrene foam panels as manufactured by Owens-Corning-Fiberglass Corporation.

Owens-Corning-Fiberglass are listed; however, the following manufacturers are accepted equals:

B. Thermal Batt Insulation (Exterior Walls) : Kraft paper faced blankets as manufactured by

Owens-Corning-Fiberglass Corporation. Provide standard sizes to fit stud spacing and

A. Envelop Moisture/Vapor Projection: Provide an envelop type air infiltration barrier installed

over the exterior sheathing. Provide GreenGuard "Raindrop" House Wrap, as manufactured by Pactiv, 800—227—7339.

staggered and sheet ends over bearing.

B. Use sheathing clips between sheets, between roof framing members. Provide solid edge

over firm bearing and staggered.

D. Place building wrap horizontally over wall sheathing; weather lap edges and ends and tape.

E. Install telephone and electrical panel back boards where indicated on drawings.

4. Arning Canopy Systems, Inc., 201 Industrial Park Pl., Cassville, MO 65625. (800) 732-5074. (417) 847-3081 fax. Contact: James Popanz. pope@arnina-ecs.com. The above listed four (4) manufacturers are the only manufactures approved by Sonic Corporation for providing the arched patio structure, fabric panel roof system, and

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section. B. Make measurements as required in the field to assure proper fit.
C. Reference Section 05120 for canopy structural tube and angle steel.

A. Approved vendors must provide an installation guideline to the contractor.

B. The contractor must install metal canopy and components in accordance with the vendors shall be of sufficient size to insure the strength of the connection as per the drawings. Exposed screws and rivets shall be colored to match adjacent material. D. Contractor shall clean canopy prior to completion of project. All shavings from drilling and cutting are to be blown off, not washed, to prevent premature rust.

SECTION 06100 - ROUGH CARPENTRY

A. Work included: Provide wood, nails, bolts, screws, framing anchors and other rough hardware, and other items needed, and perform rough carpentry for the construction shown.

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced i the necessary crafts and who are completely familiar with the specified requirements and the

nethods needed for proper performance of the work of this Section. . Comply with the pertinent codes and regulations of governmental agencies having 2. Lumber and plywood shall bear the grademark, stamp or other identifying marks

indicating grades of material and rules or standards under which grades they are produced Such identifying marks shall be in accordance with the rule or standard the material is 3. Lumber Standard: Comply with PS 20 for indicated use.

Lumber shall be in dimension type in accordance with ASTM-D245. 5. Plywood Standard: Comply with PS 1, except as otherwise indicated, for each use. 6. Size references are nominal sizes and the actual sizes shall be within the manufacturing tolerances allowed by the standards. Moisture content shall be 19% maximum. PART 2 - PRODUCTS

2.1 ROUGH CARPENTRY MATERIALS: A. Studs shall be Stud Grade Southern Pine, or greater, in accordance with dimension lumber equal or greater than 2" in its least dimension. B. Structural light framing in dimension lumber which is equal to or less than 4" shall be Southern Pine or Douglas Fir Larch No. 2 or better. C. Fabricated wood joists: Shall be equal to APA rated joists as shown on the plan. Joist depths shall be as on the drawings, provided with $1\ 1/2^n$ thick inner-seal rim same depth of joist as shown, or No. 2 Southern-Pine 2x12. Provide joists from one of the following: . Louisiana Pacific. (503) 221-0800 Truss Joist. (800) 338-0515.

. Williamette Wood Products, (541) 926-7771. . Roof Sheathing: Shall have an APA span rating of 32/16 for structural 1 rated sheathing, with a minimum thickness of 5/8" and exposure I rating: 5/8" exterior plywood, or OSB. Use common or galvanized box nails as noted on plan. E. Exterior Wall Sheathing: Shall be equal to 1/2" CDX exterior plywood or OSB as shown. Other plywood shall be as noted on the drawings. Use common or galvanized box nails as noted on plan. Provide from one of the following:

. Louisiana Pacific, (503) 221-0800. Hoover Treated Wood Products, (706) 595-5058. 3. Hickson. (404) 362-3970. Non-Structural wood Rough Bucks, Nailers, Blocking and Furring: Any species, standard

grade, unless noted otherwise. a. Use C.C.A. (.4% concentration) preservatives for all construction: AWPB LP-4 above PART 2 - PRODUCTS b. Field treat surface cuts and holes in accordance with AWPA M4. G. Rough Hardware: Provide rough hardware and fastenings as shown on Drawings, specified herein, or required for proper installation of carpentry. Nails, spikes, screws, bolts, and

similar items shall be of sizes and types to rigidly secure members in place. Hot dip galvanized items exposed to "wet areas" and treated wood. a. Comply with ASTM A7 or ASTM A36. b. Use galvanized at exterior locations.
 Machine bolts: Comply with ASTM A307

Lag bolts: Comply with Fed Spec FF-B-561. Use common except as otherwise noted. b. Comply with Fed Spec FF-N-

2. Stud to Sole Plate: 4-8d Toe Nail

3. Double Stud. Face Nail: 16d at 24"o.c

4. Built-up Corner Studs: 16d at 24"o.c

. Double Top Plate, Lap Spliced: 8-16d

SECTION 06112 - FRAMING AND SHEATHING

Miscellaneous framing and sheathing.

Structural wall and roof framing

ment by Pressure Processes.

1.3 QUALITY ASSURANCE

PART 2 - PRODUCTS

2.1 LUMBER MATERIALS

2.2 SHEATHING MATERIALS

. Fasteners and Anchors:

locations, unfinished steel elsewhere

A. Lumber Grading Rules: SPIB.

. NFPA (National Forest Products Association).

G. WCLIB (West Coast Lumber Inspection Bureau)

Perform Work in accordance with the following agencies:

Plywood Roof Sheathing: APA Rated Sheathing, Structural I.

A. Flat Roof Sheathing: As indicated on the structural drawings. B. Above Grade Sheathing: As indicated on the structural drawings.

Plywood Wall Sheathing: APA Rated Sheathing, Structural

. SPIB (Southern Pine Inspection Bureau).

H. WWPA (Western Wood Products Association).

Lumber Grading Agency: Certified by ALSC Plywood Grading Agency: Certified by APA

shown in drawings, 19 percent moisture content.

chips or flakes, set with waterproof resin binder

2.3 SHEATHING AND UNDERLAYMENT LOCATIONS

1.4 DELIVERY, STORAGE, AND PROTECTION

Built-up structural columns.

B. Common or Box nails unless noted otherwise

. Double Top Plate, Typ Face Nail: 16d at 24"o.c.

c. Use galvanized at exterior locations. H. Wood Framing Connectors: Shall be equal to the following as manufactured by Simpson ong-Tie Connectors, (800) 839-2588:

I—Joist Hangers: 18 ga as noted on plans Bridging: TB36, 20 ga Plywood Clips: PSCL 15/32, 20 ga Holddowns: As noted on plans . Acceptable Alternate Manufacturers

a. Cleveland Steel. (800) 251-8351. b. USP Lumber Connectors, (800) 328-5934. 2.2 OTHER MATERIALS: Provide other material, not specifically described but required for a complete and prope

. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed 1. Provide cutting, fitting, fabricating, erecting, wedging, bracing, blocking, nailing and securing of items or rough carpentry throughout, including miscellaneous items of framing, rring, grounds, blocking, screeds, and nailers. Such items shall be built in where and a indicated on Drawings or required for attachment of finish and other work. 2. Blocking, Bucks, Nailers: Install plumb, level, and true with joints flush, fastened

7. Header, Two Pieces: 16d at 16°o.c. top and bottom, staggered. 2—16d at ends. 8. Header to stud, toenail: 4—8d

Concealed wood blocking for support of toilet and bath accessories, wall cabinets, wood

. AWPA (American Wood Preservers Association) C20 — Structural Lumber Fire Retardant by

A. Protect I-joists from warping or other distortion by stacking in vertical position, braced to

B. Joist Framing: Stress Group APA rated, as indicated on the structural drawings, 19

percent maximum moisture content. C. Studding: Southern Pine or Douglas Fir species, stud grade, 2x6 size classification or as

D. Miscellaneous Framing: Southern Pine or Douglas Fir species, No. 2 grade or better,19

B. Particleboard Roof Sheathing: ANSI A208.1 APA Rated Oriented Strand Board (OSB); wood chips, flakes, set with waterproof resin binder; structural grade.

D. Particleboard Wall Sheathing: APA Rated Oriented Strand Board (OSB), Structural I; wood

Fasteners: Hot dipped, electro-galvanized steel for high humidity and treated wood

resistive and perm rating equal to the insulation. . Framing, Furring and Stripping: Expertly install, using skilled craftsmen, in accordance H. Plastic Board Insulation: Extruded—Polystryrene Board Insulation ASTM C 578, Type Vi, 1.60 lb/cu. ft. with maximum flame—spread and smoke—developed indexes of 75 and 450, with architectural details and standard practices. Shim as required.
4. Blocking, Curbs, Nailers, Cants: Install plumb, level and true in accordance with details respectively.

I. Closed Cell Spray—Foam Insulation: Closed Cell Foam is a tow—component closed cell spray on Drawings. Fasten securely. foam with a zero—ozone depleting HGC blowing agent. To react and expand into a medium—density closed cell foam with an in—place ore density of nominal 2.0 pcf. 3.2 TYPICAL NAILING SCHEDULE: . Typical nailing schedule shall be as follows, unless noted otherwise:

1. Top Plate to Stud: 2-16d End Nail

2-16d Face

2-16d End

Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Owner's

PART 3 - EXECUTION a. Install the work of the Section in strict accordance with the original design, requirements povernmental agencies having jurisdiction, and the manufacturer's recommendation Thermal Batt Insulation (Exterior Walls): . Install continuously in exterior walls where shown, with no gaps between adjacent batts. Secure flanges of insulation to metal or wood studs as applicable.

Secure insulation in place using wire to prevent displacement or sagging where required.

Carefully cut and fit insulation around pipes, conduits, and other obstructions; insulate areas between closely spaced framing members. 5. Close all gaps at joints and adjoining materials with tape and/or sealer 6. Install with vapor barrier (kraft paper face) facing warm side of wall.

I. Install rigid roof insulation per the manufacturers requirements for the specific substrate the drawings and as recommended by the selected roofing manufacturer. Verify of rigid roofing with the roofing manufacturer.

SECTION 07533 - FLEXIBLE SHEET ROOFING SYSTEM

A. ALSC (American Lumber Standards Committee) — Softwood Lumber Standards. PART 1 - GENERAL B. APA (American Plywood Association) 1.1 SECTION INCLUDES C. AWPA (American Wood Preservers Association) C1 — All Timber Products — Preservative A. Roof Membrane Application

> 1.2 REFERENCE STANDARDS References in these specifications to standards, test methods, codes etc., are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of

ASTM American Society for Testing and Materials FM Factory Mutual Engineering and Research NRCA National Roofing Contractors Association Rosemont, IL OSHA Occupational Safety and Health Administration

A. Duro—Last 40 mil single ply roofing membrane.

Washington, DC SMACNA Sheet Metal and Air Conditioning Contractors National Association UL Underwriters Laboratories

A. Roof Membrane Guarantee: Upon successful completion of the project, and after all post installation procedures have been completed, furnish the Owner with the manufacturer's fifteen year labor and materials membrane guarantee. The guarantee shall be a term type, without deductibles or limitations on coverage amount, and shall be issued at no additional cost to the Owner. This guarantee shall not exclude random areas of ponding from coverage.

2.1 MANUFACTURERS/SYSTEMS A. System Description: Materials and component assemblies described in this specification section are based on Duro-Last co-polymer alloy single ply membrane over rigid insulation, (800) 248-0280, 525 Morley Dr., Saginaw, Ml, 48601, Fax (800)432-9331. 2.2 ROOFING SYSTEM ASSEMBLY/PRODUCTS

A. Roofing Membrane Assembly: A roof membrane assembly consisting of a single ply thermoplastic roofing membrane. 1. Provide: Duro-Last .040 inch (1mm) thick polyvinyl chloride polymer blend membrane reinforced with high-strength, 18 x 14 threads per inch pattern, weft inserted polyester scrim, containing a combination of UV stabilizers, UV absorbers, plasticizers, heat stabilizers, flame retardant, lubricants and biocides.

PART 3 EXECUTION

3.1 PREPARATION A. Sweep or vacuum all surfaces, removing all loose aggregate and foreign substances prior

commencement of roofing.
ROOF MEMBRANE INSTALLATION . Shall be in accordance with approved manufacturer's specifications and standard details. B. Aesthetic Considerations: An aesthetically pleasing overall appearance of the finished roof recommended application techniques, apply the specified materials, and exercise care in

SECTION 07600 - FLASHING AND SHEET METAL C. Secure wall sheathing with long dimension parallel or perpendicular to wall studs, with ends

1.2 QUALITY ASSURANCE

A. Work included: Provide flashing and sheet metal not specifically described in other Sections of these Specifications but required to prevent penetration of water through the

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. B. In addition to complying with pertinent codes and regulations, comply with pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published by the Sheet Metal and Air Conditioning Contractors National Association (SMACNA). C. Standard commercial items may be used for flashing, trim, reglets, and similar purposes provided such items meet or exceed the quality standards specified.

2.1 MATERIALS AND GAGES A. Where sheet metal is required, and no material or gage is indicated on the Drawings. provide the highest quality and gage commensurate with the referenced standards.

B. Metal Roof Flashing: Shall be galvanized metal, 26 ga., in sizes and shapes indicated on he drawings. . Cap Flashina: Shall be aluminum. .050 thickness, prefinished, preformed, formed true and accurate, in 8 to 10 foot lengths. All seams to be flat lock type, except at corners. Corners to be fabricated to minimum 18" x 18", mitered, soldered, and sealed in one piece. Cap flashing finish to match metal capony finish and siding color.

"Typar Metro Wrap", distributed by Wolf Distributing Co., (877) 315—6669. B. Sill Plate Sealer: Provide a sill plate sealer between the slab and sill plate at all exterior .2 GALVANIZED IRON Provide sheet metal or sheet iron of a standard brand of open-hearth copper-bearing steel, copper-molybdenum iron, or pure iron sheets Where galvanizing is required, provide zinc coating by hot—dip galvanize to all surfaces.

a. Provide not less than 1-1/4 oz per sq ft, nor more than 1-1/2 oz per sq. ft., to surfaces required to be galvanized 3. Comply with ASTM A93. 2.3 NAILS RIVETS AND FASTENERS

A. Use only soft iron rivets having rust—resistive coating, galvanized nails, and cadmium plated screws and washers in connection with galvanized iron and steel.

A. Where flux is required, use raw muriatic acid 2.5 SOLDER A. Where solder is required, comply with ASTM B32.

2.6 OTHER MATERIALS A. Provide other materials, not specifically described but required for a complete and proper

installation, as selected by the Contractor subject to the approval of the Owner's lashing and sheet metal are completely watertight. PART 3 - EXECUTION

1. Form sheet metal accurately and to the dimensions and shapes required, finishin molded and broken surfaces with true, sharp, and straight lines and angles and, wher tercepting other members, coping to an accurate fit and soldering securely. B. Upon completion of this portion of the Work, complete and post a certificate of insulation compliance in accordance with pertinent requirements of governmental agencies having 2. Unless otherwise specifically permitted by the Owner's Representative, turn exposed edges B. Form, fabricate, and install sheet metal so as to adequately provide for expansion and contraction in the finished Work

> Finish watertight and weathertight where so required . Make lock seam work flat and true to line, sweating full of solder. . Make lock seams and lap seams, when soldered, at least 1/2 wide. 4. Where lap seams are not soldered, lap according to pitch, but in no case less than 3". . Make flat and lap seams in the direction of flow

. Join parts with rivets or sheet metal screws where necessary for strength and stiffness. 2. Provide suitable watertight expansion joints for runs of more than 40'-0'', except where closer spacing is indicated on the Drawings or required for proper installation. 1. Whenever possible, secure metal by means of clips or cleats, without nailina through the

2. In general, space nails, rivets, and screws not more than 8" apart and, where exposed o the weather, use neoprene washers. 3. For nailing into wood, use barbed roofing nails 1-1/4" long by 11 gage. 4. For nailing into concrete, use drilled plugholes and plugs

A. Embed metal in connection with roofs in a solid bed of sealant, using materials and methods described in Section 07920 of these Specifications or other materials and methods 3.4 SOLDERING

Thoroughly clean and tin the joint materials prior to soldering. 2. Perform soldering slowly, with a well heated copper, in order to heat the seams thoroughly and to completely fill them with solder.

3. Perform soldering with a heavy soldering copper of blunt design, properly tinned for use.

4. Make exposed soldering on finished surfaces neat, full flowing, and smooth. B. After soldering, thoroughly wash acid flux with a soda solution

3.5 TESTS A. Upon request of the Owner's Representative, demonstrate by hose or standing water that

SECTION 07610 - PREFORMED METAL ROOFING

PART 1 - GENERAL A. This section includes: The metal roofing over the drive—thru bump out on buildings with this feature

A. ASTM A361 — Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process for Roofing and Siding. B. ASTM A446 - Steel Sheet, Zinc Coated, (Galvanized) by the Hot-Dip Process, Structural (Physical) udity. C. ASTM D2178 — Asphalt Impregnated Glass Mat for Roofing and Waterproofing. D. ASTM D4586 — Asphalt Roof Cement, Asbestos—Free.

E. NRCA (National Roofing Contractors Association) — Roofing Manual. 1.3 SYSTEM DESCRIPTION

. Desian Reauirements: ovide UL 90 rated roofing system that has been tested in accordance with UL 580 test procedure 2. Provide factory performed panel system that has been pre-tested and certified by manufacturer to comply with specified requirements under installed conditions. B. Environmental Requirements: (Actual independent laboratory certified test results must be

1. Resistance to air infiltration: 0.059 cfm per lineal foot of l\joint when tested in accordance with ASTM E283 at static test pressure differential of 6.24 psf.

2. Resistance to water infiltration: No leakage through panel joints when tested in accordance with ASTM E331 at static test pressure differential of 6.24 ps 1.5 QUALITY ASSURANCE A. Perform work in accordance with SMACNA and NRCA standard details and requirements.

B. Regulatory Requirements: Comply with requirements of applicable building codes and other agencies having jurisdiction for wind uplift rating of standing seam roofs. 1. Furnish manufacturer's standard 20—year warranty under provisions of Section 01700 stating

a. Free of fading or color change in excess of 5 NBS units as measured per ASTM D2244-68; b. Will not chalk in excess of numerical rating of 7 when measured in accordance with standard procedures specified in ASTM D659-74: . Will not peel, crack, chip or delaminat

Provide two—year warranty under provisions of Section 01700. 2. Warranty: Include coverage for water tightness integrity of seals.

.1 MANUFACTURERS A. Acceptable Manufacturers: Provide one of the following: "Lokseam", by MBCl Corp., (281) 445-8555. 2. "Snap-Lock", by Imetco, (770) 908-1030. 3. "Z-lock Panel", by Berridge Manufacturing Co., (800) 231-8127.

2.2 MATERIALS 1. 24 gauge prefinished galvalume sheet made up of 55% aluminum, 1.6% silicon and the balance zinc, is described in ASTM specification A792.

2. Fabricate panels with sufficient thickness to meet specified UL 90 wind uplift requirements. Factory fabricate panel with integral continuous interlocking standing seam.
 Provide factory installed, high-grade, hot-melt elastomeric sealant at standing seams.

Standard Clip: 18 gauge galvanized steel, 33 ksi yield strength, 2" long single fastener type. . Nailable substrate fasteners: #10 -12 x 1" long A-Point fastener, pancake head Phillips drive crews for plywood; noncorrosive base material 1. Provide manufacturer's standard accessories and other items essential to completeness of standing

Provide nylon seam end plugs for clean termination of panel Provide factory fabricated rib covers at roof slope transitions. 4. Provide transition rib covers where roofing changes directions. 1. Color coordinated primerless silicone or high grade, non-drying butyl as recommended by panel 2. Do not use sealant containing asphalt.

A. Form sections true to shape, accurate in size, sauare, and free from distortion or defects, B. Apply strippable coating to the top side of metal to protect finish during fabrication, shipping and

C. Hem exposed edges on underside 1/2 inch: miter and seam corners. . Fabricate vertical faces with bottom edge formed outward ¼ inch and hemmed to form drip.

. Provide factory—formed panel width of 18 inch with 1¾" high standing seam. 2. Provide panels in full length from ridge to eave. 3. Where single length panels are not practical provide mated swaged panels for positive joint end laps, abricated with overlap in direction of water flow. Panel seams shall interlock entire length of seam without use of field seaming machines.

2. Engineer standing seam to lock-up and resist joint disengagement during design wind uplift 3. Fabricate female leg with pressure equalized capillary break to prevent water siphoning through 4. Provide factory sealant at standing seams to aid in resistance of leaks and to provide panel-to-panel seal while allowing expansion and contraction movement. Provide UL listed (standard) clip designed to allow panels to thermally expand and contract.

2. Fabricate clips with embossments that raise underside of panels above substrate to allow 3. Fabricate clips with structurally embossed outstanding legs to prevent distortion due to wind uplift 1. Engineer panels to use concealed anchors that permit expansion and contraction. Exposed fasteners in roofing panels will not be permitted.

J. Provide factory eave panel notch for eave termination.

A. Fluorocarbon Coating: 1. Full—strength 70% Kynar 500®coating baked on for 15 minutes at 450 degrees F to dry film thickness of 1.0 mil. 2. 15% reflective gloss (ASTM D523). (Low Gloss) 4. Color: Ref. Exterior Finish Schedule

PART 3 EXECUTION 3.1 EXAMINATION

Match existing seams, clips and panels.

A. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to eaves.

B. Verify deck is dry. Verify joints in wood deck are solidly supported and fastened 3.2 PREPARATION A Felt Underlayment (solid substrate) Provide one layer of No. 30 felt with horizontal overlaps and end laps staggered between layers.

2. Lay parallel to ridge line with 2-1/2" horizontal lapse and 6" vertical laps. . Remove strippable coating before installation 3.3 INSTALLATION A. Comply with manufacturer's instructions for assembly, installation and erection. Install in accordance

B. Anchor panels securely in place using clips and fasteners space in accordance with manufacturer's C. Fully seat adjacent panel to achieve continuous engagement of standina seam ioint Where sheet metal is in contact with dissimilar metals, execute juncture to facilitate drainage and minimize possibility of galvanic action.

2. At point of contact with dissimilar metal, coat metal with protective paint.

. Flashings 1. Conform to SMACNA details, Plates 61. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted. Cleat and seam all joints.
 Apply plastic cement compound between metal flashings and felt flashings. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profile 5. Solder metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water F. Field apply sealant to penetrations, transitions, and other locations necessary (not standing seam) for

A. Clean exposed surfaces of work promptly after completion of installation. 3.5 FIELD QUALITY CONTROL

3.6 PROTECTION OF FINISHED WORK A. Protect finished Work under provisions of Section 01500.

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

SECTION 07920 - SEALANTS AND CAULKING PART 1 - GENERAL

B. Acceptable types include

A. Work included: Throughout the Work, seal and caulk joints where shown on the Drawings and elsewhere as required to provide a positive barrier against passage of moisture and passage of ai PART 2 - PRODUCTS

A. Except as specifically otherwise approved by the Owner's Representative, use only the types of sealants described in this Article. B. Provide one-component, polyurethane based compound complying with Fed Spec TT-S-00227c, with each color of sealant and each class of sealant the product of a single manufacturer selected from the ollowing, or equal products approved in advance by the Owner's Representative. 1. Interior Caulking and Sealant material for the building joints shall be equal to one of the following: a. No. 864 Architectural Silicone Sealant, by Pecora, (215) 723-6051. b. No. 790 Silicone Building Sealant, by Dow Corning, (517) 496-6000. 2. No. SCS 1000 Contractor's Silicone Sealant, by General Electric, (800) 332-3390.

2. Exterior Caulking and Sealant material for the building joints shall be eaual to one of the following: a. Temco Vulken 116 Gun Grade Polyurethane Sealant (800) 321-7906. b. Sonneborne NP1 Gun Grade Polyurethane Sealant (800) 433-9517. :. No. SCS 1000 Contractor's Silicone Sealant, by General Electric, (800) 332-3390 5. Primer, where required shall be used as recommended by manufacturer of sealant, having been tested or staining and durability on samples of actual surfaces to be sealed. 4. For other services, provide products especially formulated for the proposed use and approved in

advance by the Owner's Representative. rs of sealant shall match adjacent wall material finish color 2. Should such standard color not be available from the approved manufacturer except at additional charge, provide such colors at no additional cost to the Owner. D. In concealed installations, and in partially or fully exposed installations where so approved by the Owner's Representative, use standard gray or black sealant.

A. Use only those primers which are non-staining, have been tested for durability on the surfaces to be sealed, and are specifically recommended for this installation by the manufacturer of the sealant used. 2.3 BACKUP MATERIALS A. Use only those backup materials which are specifically recommended for this installation by the

. Denver Foam or equal C. Preformed support strips for ceramic tile control joint and expansion joint work: Use polyisobutylene or polychloroprene rubber 2.4 BOND-PREVENTATIVE MATERIALS A. Use only one of the following as best suited for the application, and as recommended by the 1. Polyethylene tape, pressure—sensitive adhesive, with the adhesive required only to hold tape to the

2.5 MASKING TAPE A. For masking around joints, provide masking tape complying with Fed Spec UU-T-106c. 2.6 OTHER MATERIALS A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Owner's Representative

3.1 SURFACE CONDITIONS A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory

conditions are corrected Concrete surfaces:

Install only on surfaces which are dry, sound, and well brushed, wiping free from dust. 2. At open joints, remove dust by mechanically blown compressed air if so required.

3. Use solvent to remove oil and grease, wiping the surfaces with clean rags.

4. Where surfaces have been treated, remove the surface treatment by sandblasting or wire brushing.

5. Remove laitance and mortar from joint cavities.

3. Where backstop is required, insert the approved backup into the joint cavity to the depth recommended by sealant manufacturer. Steel surfaces in contact with sealant: . Sandblast as required to achieve acceptable surface for bond. b. If sandblasting is not practical, or would damage adjacent finish, scrape the metal or wire brush c. Use solvent to remove oil and grease, wiping the surfaces with clean rags

Aluminum surfaces: Aluminum surfaces in contact with sealant Remove temporary protective coatings, dirt, oil, and grease. b. When masking tape is used for protective cover, remove the tape prior to applying the sealant.

2. Use only such solvents to remove protective coatings as are recommended for that purpose by the nanufacturer of the aluminum work, and which are non—staining.

3.3 INSTALLATION OF BACKUP MATERIAL A. Use only the backup material recommended by the manufacturer of the sealant used, and approved or the particular installation, compressing the backup material 25% to 50% to achieve a positive and B. When using backup of tube or rod stock, avoid lengthwise stretching of the material. Do not twist or

A. Use only the primer recommended by the manufacturer of the sealant, and approved for the particular installation, applying in strict accordance with the manufacturer's recommendations as approved by the Owner's Representative A. Provide an approved bond—breaker where recommended by the manufacturer of the sealant, adhering

strictly to the installation recommendations as approved by the Owner's Representative 3.6 INSTALLATION OF SEALANTS A. Prior to start of installation in each joint, verify the joint type according to details on the Drawings, or as otherwise directed by the Owner's Representative, and verify that the required proportion of widt of joint to depth of joint has been secured.

Apply sealant under pressure with power-actuated or hand aun, or by other appropriate means. 2. Use guns with nozzle of proper size, and providing sufficient pressure to completely fill the joints as lesigned. C. Thoroughly and completely mask joints where the appearance of sealant on adjacent surfaces would be objectionable. D. Install the sealant in strict accordance with the manufacturer's recommendations, thoroughly filling Tool joints to the profile shown on the Drawings, or as otherwise required if such profiles are not shown on the Drawings.

3. Provide proper and adequate application, storage, and disposal of the sealant to prevent potential of an environmental hazard G. Cleaning up: Remove masking tape immediately after joints have been tooled. 2. Clean adjacent surfaces free from sealant as the installation progresses, using solvent or cleaning agent recommended by the manufacture of the sealant used.

. Install the sealant in strict accordance with the manufactures printed instructions and warnings.

2. Provide proper and adequate ventilation during the application, during installation, and until properly

SECTION 08100 - METAL DOORS AND FRAMES PART 1 - GENERAL

1.1 DESCRIPTION A. Work included: Provide metal doors and frames, which are not specifically described in other Sections of these Specifications, where shown on the Drawings, as specified herein, and as needed for a complete and proper installation. apply touch-up of compatible air-drying primer

PART 2 - PRODUCTS

2.1 METAL DOORS A. Type and design:
 1. Provide full-flush design, in dimensions and types shown on the Drawings, labeled or non-labeled as indicated on the Door Schedule in the Drawings, in 18 gauge for interior doors and 16 gage for exterior doors, properly reinforced for the finish hardware described in Section 08710 of these Specifications.

a. Provide G90 galvanization on all exterior doors and frames. 2. Doors shall be flush type, Heavy Duty, Grade II, 1—3/4" thick

1. Pre-clean and shop prime (with baked-on zinc chromate paint) each door for finish painting which will be performed at the job site under Section 09900 of these Specificat C. Acceptable products: Comply with applicable requirements of Steel Door Institute "Recommended Specifications for

Standard Steel Doors and Frames" (SDI-100), except as otherwise indicated by specific requirements on Drawings or these Specifications. . Underwriter's Laboratories Inc. (UL) and Factory Mutual (FM) as required for fire rated asser Cold rolled stretcher leveled steel face sheets full flush construction, conforming with ASTM A366
 Face sheets connected together with continuous vertical steel stiffeners spaced 6" maximum on

5. Face sheets to meet at both edges of door and weld to internal 14 gage continuous strip. Expose joint filled and ground smooth.
6. Close and reinforce top and bottom of door with channels, full width of door. 7. Exterior doors shall have tops closed (waterproof) by 14 gauge continuous channel welded, filled, o ground smooth. Tops must not collect water.

8. Provide door with polystyrene core, laminated to inside faces for insulation and sound deadening. 9. Concealed reinforcement for hardware (same as for frames).

D. Acceptable manufacturers: Provide doors by one of the following acceptable manufacturers: 1. D-Series doors by Fleming, (800) 263-7515. 2. H.M. w/polystyrene core, by North American Door Corp., (800) 660-3550.

2.2 METAL FRAMES

A. Type and design:1. Provide frames of the types and dimensions shown on the Drawings, labeled or non-labeled as indicated on the Door Schedule in the Drawings, in 18 gage for interior doors and 16 gages for exterior

2. Shop assembled, full mitered welded joints. All edges closed to hairline fit. Mitered faces welded and ground smooth. 4. Adjustable floor knees, and 3 anchors minimum each jamb (max. 24" o.c. spacing). 5. Ship frames with spreader angles at bottom. 3. Frames shall fit wall thickness as specified with a 1/2" lap for 5/8" gypsum board walls. . Frame returns shall be 2".

will be performed at the job site under Section 09900 of these Specifications.

acceptable manufactures listed in Paragraph 2.1-D above.

3. F-Series doors, by CECO Door Products, (615) 661-5030.

8. Door frame jambs shall be prepared to receive 4-1/2" template hinges (for 13/4" doors) and -7/8" A.S.A. strike plates unless specified otherwise. Obtain templates from hardware supplier.

9. Reinforcement shall be available for the attachment of surface mounted closures when specified. Reinforce heads to support weight of non-loadbearing partitions above frame. 1. Furnish rubber silencers, 3 for single doors, 2 for double doors, and drill frames for same. 1. Pre-clean and shop prime (with baked-on zinc chromate paint) each frame for finish painting which

2.3 FINISH HARDWARE A. Secure templates from the finish hardware supplier, and accurately install, or make provision for, all finish hardware at the factory. PART 3 - EXECUTION

C. Acceptable manufacturers: Provide F-16 Series frames by Fleming or equal products by one of the

3.1 SURFACE CONDITIONS A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory

. Where practicable, place frames prior to construction of enclosing walls and ceilings. 2. Set frames accurately into position, plumbed, gligned, and braced securely until permanent anchors are set.
3. After wall construction is completed, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.

4. At in-place construction, set frames and secure to adjacent construction with machine screws and suitable anchorage devices. Provide "Z" fillers at each screw location. 5. Install doors with 1/16" clearance at head and jamb, 3/8" clearance at floors, and 1/8" clearance it thresholds with no binding. Install labeled doors in accordance with local codes and NFPA Pamphlet 6. Doors shall not bind, stick, scratch or be mounted as to cause future hardware difficulties.

7. Fit all hardware, weatherstripping, thresholds and seals, in accordance with manufacturer's printed instruction. Adjust door closing devices prior to final inspection.

8. Install fire—rated frames in accordance with NFPA Standard No. 80. 3.3 ADJUST AND CLEAN

1. Check and readjust operating finish hardware items in hollow metal work just prior to final . Leave work in complete and proper operating condition. move defective work and replace with work complying with the specified requirements. B. Immediately after erection, sand smooth all rusted and damaged areas of prime coat, and apply

SECTION 08410 - ALUMINUM ENTRANCE DOORS

PART 1 - GENERAL

angles. Securely fasten.

those trades for interface with the work of this Section

B. Make measurements as required in the field to assure proper fit.

PART 3 - EXECUTION

3.2 INSTALLATION

A. Placina frames:

A Work included: Provide aluminum doors and frames where shown on the Drawings, as specified herein, and as needed for a complete and proper installation. PART 2 - PRODUCTS

A. Acceptable Manufacturers: For purposes of these specifications, provide products by United States Aluminum Corp., (800) 627-6440. Equal products by the following manufacturers shall be acceptable: No. 190 Narrow Stile, by Kawneer Corp., (770) 449-5555.

2. NS 72, Amalite Narrow Style, by Arch. Aluminum & Glass Co., Inc., (800) 432-8132. a. Aluminum entrances shall be United States Aluminum No. 250, narrow stile doors b. Vertical stiles shall be 2", top rail shall be 2%", and bottom rail 9%".

c. Corner construction shall consist of both sigma deep penetration weld and bottom fastening.
d. Glazing stops shall be snap-in type with neoprene bulb type glazing. No exposed screws shall be required to secure stops. Stops on exterior side shall be lock-in tamper proof type. e. Door leaf shall be equipped with adjustable mechanism located in top rail near lock stile, which will provide for minor clearance adjustments after installation.

f. Provide with nylon pad setting blocks for glazing bead with offset levelizer to allow adjustment of ... Hardware for all doors shall be match entrance finish. Refer to Hardware Schedule for requirements 3. GLAZING: To be 1/4" thick, tempered clear glass. 4. STOREFRONT: Aluminum door frames shall have 1¾" x 4½" profile and 0.125" wall thickness as

manufactured by United States Aluminum. 5. FINISHES: Door and frame aluminum finish: Ref. Exterior Finish Schedule. 2.2 FINISH HARDWARE A. Prepare for, receive, and install the finish hardware furnished under Section 08710 of these pecifications. Provide any other hardware not specifically listed, but required for proper door operation. I. Perform all fitting of finish hardware to doors and frames at the factory; except do not drill or tap for surface mounted items until time of installation at the site.

2. Comply with finish hardware manufacturer's instructions and template requirements. 3. Use concealed fasteners to the maximum extent practicable. 2.3 FABRICATION A. Fabricate anodized aluminum frame to allow for clearance and shim space around perimeter of assemblies, to enable installation. Provide for thermal movement.

B. Fabricate in strict accordance with the manufacturer's specifications and Shop Drawings as approved by the Owner's Representative, prefabricating in the shop to the maximum extent practicable. C. Provide hairline fit at joints, with smooth continuity of line and accurate relation of planes and

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory

A. Coordinate as required with other trades to assure proper and adequate provision in the work of

A. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Owner's Representative, anchoring all components firmly into position for long life. B. Remove protective coating completely from exposed surfaces as soon as progress of the Work will permit with safety.

C. When glazing is performed under this Section, provide the types of glass required and glaze in ccordance with pertinent provisions of Section 08800 of these Specifications.

D. Anchors and Bracing: Properly locate and fasten anchoring devices into structure.

Dissimilar materials: Isolate aluminum surfaces contacting steel or other ferrous metals using

CC-1202 tape or chromate paint. Isolate aluminum surfaces contacting concrete or masonry using

15 Ninth Avenue North, Hopkins, MN 55343 Phone: 952.941.8660/ www.wilkusarch.com

CLIENT:

GEAUX SONIC LLC

1012 SOUTH COOPER STREET

GREENTOWN, IN 46901

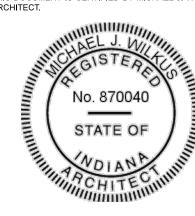
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PROJECT INFORMATION:

URAI TENU S D 4 E RE ANI IN #65 Z Z Z

HIS DOCUMENT IS CERTIFIED BY MICHAEL J. WILKUS,

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SIGNATURE MICHAEL J. WILKUS ARCHITECT LICENSE NUMBER: AR00870040

EXPIRATION DATE: 12-31-16 03-18-16 DATE

PROJECT NO.: 2015-1674

DRAWN BY: J.A.K. CHECKED BY: M.J.W. DATE: PERMIT SET 03-18-16

REVISION DATE:

PROJECT LOCATION:

KOKOMO, IN

SHEET NUMBER / TITLE:

SPECIFICATIONS