Riverside County – Volunteers in Medicine Clinic
82-915 Avenue 48
Indio, CA.
Project #0901.00

SECTION 07820

INSULATED TRANSLUCENT SKYLIGHT AND WALL LIGHT SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. The General Conditions of the Contract, including Supplementary Conditions and Division 1 - General Requirements, apply to the work of this Section.

1.02 WORK INCLUDED

A. Design, manufacture and installation of translucent insulating system. A complete assembly of extruded cellular UV polycarbonate glazing panels incorporated into a complete system tested and warranted by the manufacturer as a single source system.

B. All anchors, brackets, and hardware attachments necessary to complete the specified structural assembly, weatherability and watertightness performance requirements. All flashings up to but not penetrating adjoining work are also required as part of the system and shall be included.

C. Trained and factory authorized labor with supervision to complete the entire panel installation.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A.	Section 05120	-	Structural Steel
B.	Section 07532	-	Mechanically fastened Single Ply Roofing.
C.	Section 07620	-	Sheet Metal, Flashing and Trim
D.	Section 07900	-	Joint Sealants and Caulking

1.04 QUALITY ASSURANCE

A. Skylight system manufacturer must be evaluated and listed by the recognized building code authorities: International Conference of Building Officials (ICBO) and SBCCI - Public Safety Testing and Evaluation Services Inc.

B. Materials and Products shall be manufactured by a company continuously and regularly employed in the manufacture of similar materials for a period of at least ten (10) years.

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C. Erection shall be by a factory-approved installer which has been in the business of erecting similar material for a least five (5) consecutive years and can show evidence of satisfactory completion of projects of similar size, scope and type.

D. The manufacturer shall be responsible for the configuration and fabrication of the complete panel system, and will ensure that it fully meets all requirements of this specification.

1.05 SUBMITTALS

A. Submit shop drawings and color samples in accordance with Section 01340.

B. The manufacturer shall submit written guarantee accompanied by substantiating data, stating that the products to be furnished are in accordance with or exceed these specifications.

C. The manufacturer shall submit certified test reports made by an independent organization for each type and class of panel system. Reports shall verify that the material will meet all performance requirements of this specification. Previously completed test reports will be acceptable if they are current and indicative of products used on this project. Test reports required are:

1. Self Ignition Temperature (ASTM 1929-3)
2. Smoke Density (ASTM D-2843)
3. Burning Extent (ASTM D-635)
4. Interior Flame Spread (ASTM E-84)
5. Color Difference (ASTM D-2244-85)
6. Weathering (ASTM D-4364)
7. Yellowing Index (ASTM D-1925)
8. Weathering Evaluation before and after exposure to 300°F, 25 minutes include Light Transmission, Color Change, and Yellowing Index, per ASTM E-1175, ASTM D-2244 and ASTM D-1925 respectively.
9. Light Transmission (ASTM E1175)
10. Solar Transmission (ASTM E-1084)
11. Impact Strength (ASTM E-822-81)
12. Shatter Resistance (ASTM D-3841/SPI Method B)
13. Insulation "U" Factor (ASTM C-236 configured for/or NFRC100 test conditions of 15 m.p.h.)
14. Air Infiltration (ASTM E-283), at minimum 15 P.S.F.
15. Water Penetration (ASTM E-331), at minimum 15 P.S.F.
16. Load Bearing Capability (ASTM E- 300- 90)
17. ASTM E108, UBC 32-7, UL 790, ULC- S107, NFPA 256.

1.06 WARRANTY

A. Provide manufacturer standard 10 year warranty covering workmanship per Section 01750 and to include:

1. Change in light transmission of no more than 6% per ASTM D-1003, and in color (yellowness index) in excess of 10 points, in comparison with the original value.

2. No delamination of panel effecting appearance, performance or structural integrity of the panel or the system.

3. The light transmission and the color shall not change after exposure to heat of 300°F for 25 minutes. (When measured per ASTM D-1003 and ASTM D-2244 respectively).

B. In addition, provide standard manufacturer 5 year warranty to include:

1. No panel penetration or breakage from hail stone up to 1.1" in diameter at velocity of 82 ft/sec.

PART 2 - PRODUCTS

2.01 TRANSLUCENT INSULATING INTERLOCKING GLAZING SYSTEM

A. The design and performance criteria of this job are based upon the products manufactured by CPI International, Inc., telephone (800) 759-6985, (708) 816-1060, fax (708) 816-0425; and as locally represented by:

Integrated Marketing Concepts (909) 392-5500

B. Other translucent polycarbonate systems will be considered provided that they fully meet all specification, warranty, module and aesthetic intent and are approved by written addendum prior to bid, per Section 00440. All submittals for prior approval shall include samples and complete test data as prescribed in Section 1.05 of this specification and per Division 1.

2.02 TRANSLUCENT PANEL PERFORMANCE

A. Thermal and solar performance:

1. Insulation Value ("U") per ASTM C236 configured for/or NFRC 100 test conditions .24
2. Light Transmission (L.T.%) 24% per ASTM E1175.
3. Solar Transmission (S.T.) .25 per ASTM E1084 at "normal" (90°) incidence angle.
4. Color: Clear/ White 30.

B. Flammability:

1. The exterior and interior faces shall be an approved light transmitting panel with a CC1 fire rating classification per ASTM D-635. Smoke

density no greater than 70 per ASTM D2843 and self ignition temperature of 1120 degrees per ASTM 1929.

2. Interior flame spread classification of Class I per ASTM E84.

3. The translucent panel shall be successfully evaluated for fire from exterior exposure per ASTM E108, FM 4470, NFPA 256, UBC 32-7, ULC S107, UL 790 to meet Class B rating. The panel must be listed by an independent recognized listing laboratory.

C. Weatherability:

1. The exterior and interior faces shall not change color more than 3.0 units (DELTA-E by ASTM D2244) after 60 months outdoor weathering in Arizona determined by a average of at least two samples.

2. The exterior and interior faces shall be tested by recognized laboratory for weathering evaluation per ASTM D4364-84 (EMMAQUA, UNBACKED), after exposure to minimum concentrated natural sunlight radiation of 56000 MJ/M² U.V. (200-385 NM). The exterior and interior faces shall not change:

   a. Color more than 3.0 units Delta E, 5.0 units Delta L and Delta B

   b. Yellowing index more than 10 units Delta Y per ASTM D1925.

3. The light transmission as measured by ASTM D1003, shall not decrease more than 6% over 10 years, or after exposure to temperature of 300°F for 25 minutes.

4. The interior and exterior faces shall not change color in excess of 0.75 Delta E by ASTM D2244 and shall not darken more than 0.2 units (Delta L by ASTM D2244) and 0.2 units Delta Y (YI) by ASTM D1925 and shall not show cracking or crazing when exposed to 300°F for 25 minutes.

5. The faces shall not become readily detached when exposed to temp of 300°F and 0°F for 25 minutes.

D. Longevity and Resistance to Buckling Bending and Pressure:

1. Longevity: The minimum ratio of the panel weight to the panel thickness should be: 0.91 LB. Per SF.

2. Resistance to buckling, bending and pressure: The extruded panel shall include integral extruded multi-cells, and a truss-like structural core. The panel's exterior skins shall be interconnected and spaced apart by supporting continuous ribs, perpendicular to the skins, at a spacing not to exceed 0.16" (truss-like construction). In addition, the space between the two exterior skins in a cross section shall be divided by multiple parallel intermediate surfaces, at a spacing not to exceed 0.16".

E. Appearance

1. The panels shall be uniform in color, with a rigid-line texture for even light diffusion and an integral cellular core. In a cross-section, the core shall be constructed of a small square or rectangular cells not to exceed 0.16" x 0.16". The appearance should be equal to CPI's Quadwall Panel.
2. Panels shall consist of a polycarbonate resin with a permanent, co-extruded, ultra-violet protective layer. This layer shall be co-extruded by a manufacturer during the original extrusion of the panel and shall be a permanent part of the exterior layer. Post-applied coating or films of dissimilar materials are unacceptable.
3. The panel assemblies thickness shall be 3" with concealed interlocking H battens of aluminum.
4. Panel Width: Shall not exceed 2' to ensure best performance for wind uplift, vibration, oil canning and visual appearance.

F. Impact Resistance:

1. The panels shall pass the following tests:
   a. ASTM D-3841/ SPI- Impact and Shatter Resistance of 200 ft. lbs.
   b. SFBC- PA 201-94, impact resistance of 350 ft. lbs.

G. Translucent Panel Joint System:

1. Panel shall be extruded in one single formable length. Maximum panel width shall not exceed 2'. Transverse connections are not acceptable. The panels should be manufactured with upstands which are integral to the unit, and the upstands shall be 90 degrees to the panel face (standing seam dry glazed concept). Welding or gluing of upstands or standing seam is not acceptable.
2. Mullions to be dry glazed profiles, using no sealant, welding adhesives or gaskets.
3. Mullions to be thermally broken and continuous for panel length.
4. Concealed fasteners to be used for panel mullion joint.
5. For structural performance, the use of adhesives, plastic welding or sealant is not allowed.
6. Free movement of the panels shall be allowed to occur without damage to the weather tightness of the completed system.

H. Air Infiltration:

1. ASTM E-283 at test pressures of 15.0 PSF- 0.042 SCFM/ft. of dry glazing joint length.

I. Water Penetration:

1. No water penetration- ASTM E-331 at test pressure of 15.0 PSF.

J. UV Maintenance:

1. The system shall require no scheduled re-coating to maintain its performance or for UV protection.

K. Diffused Light Transmission:

1. As a reference for measuring the quality of the diffused light through the panel assembly, the IES (Illuminating Engineering Societies) LM-44-1990 Approved Method for Total and Diffuse Reflectometry procedure shall be used. Results for a Clear over Clear Quadwall/ Double Glazed panel assembly shall be provided as a base standard for comparison.

   For Quadwall/ Double Glazed systems with total illuminator flux output at 54 lumens, diffused light transmission requirements are

Zonal Zone	% of transmittance from the maximum total lumens transmitted through the panels
0-30	66.0
0-40	78.5
0-60	94.0
0-90	100.0

2.04 STRUCTURE

A. Design criteria shall be:

1. Wind Load 80 m.p.h.

2. Live Load 20 lb/ft²

B. Skin system - translucent panel shall be installed over support structure as detailed in drawings.

2.05 METAL MATERIALS

A. Extruded aluminum shall be ANSI/ASTM B221; 6063-T6 and 6063-T5.

B. Fasteners exposed to weather shall be non-magnetic stainless steel. Where concealed all fasteners to be stainless steel or Cadmium plated steel.

C. All exposed aluminum finish shall be custom color baked enamel to match color by Frazee #7804D- Clay Urn.

PART 3 - EXECUTION

3.01 EXAMINATION

A. General Contractor to verify when structural support is ready to receive all work in this section and to convene a Pre-Installation Conference at least one week prior to commencing work of this Section. Attendance required of General Contractor, skylight installer and all parties directly affecting and effected by the work of this section.

B. All submitted opening sizes, dimensions and tolerances are to be field verified by general contractor unless otherwise stipulated.

C. Installer to examine area of installation to verify readiness of site conditions. Notify general contractor about any defects requiring correction. Do not work until conditions are satisfactory.

3.02 INSTALLATION

A. Install components in strict accordance with manufacturer's instructions and approved shop drawings. Use proper fasteners and hardware for material attachments as specified.

B. Use methods of attachment to structure allowing sufficient adjustment to accommodate tolerances.

C. Remove all protective coverings on panels immediately after installation.

3.03 CLEANING

A. Follow manufacturer's instructions when washing down exposed panel surfaces using a solution of mild detergent in warm water that is applied with soft, clean wiping cloths.

B. Follow strict panel manufacturer guidelines when removing foreign substances from panel surfaces requiring mineral spirits or any solvents that are acceptable for use.

END OF SECTION

SECTION 07840

FIRESTOPPING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all firestopping as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Firestopping of mechanical and electrical penetrations: Divisions 15 and 16.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Material Data:

1. Data substantiating compliance with specified requirements.

2. Manufacturer's installation instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Safing insulation:

a. Base: U.S. Gypsum Co.

2. RTV foam:

a. Base: Any manufacturer U/L listed for systems used.

3. Other manufacturers desiring approval comply with Section 00440 or Section 01640.

B. Insulation, safing: Glass or other inorganic fibers and binders formed into semi-rigid blankets.

1. ASTM E84 flame spread: 25, max.

2. ASTM E119 tested for assembly and rating indicated.

3. Thickness and density as required to maintain fire rating of assembly.

C. RTV foam: Room-temperature-vulcanized silicone rubber foam.

1. U/L listed as "Fill, Void or Cavity Material (ZCPY)" for use in "Wall or Floor Opening Protective, Multiple Cable Systems (ZCOR)".

2. Forming materials as described in applicable U/L system.

PART 3 - EXECUTION

3.01 INSTALLATION - SAFING INSULATION

A. Install in accord with manufacturer's instructions, to maintain fire separations indicated.

B. Install rigid batts, that resist smoke passage in only one direction, in proper orientation to resist smoke passage.

3.02 INSTALLATION - RTV FOAM

A. Install in accord with manufacturer's instructions, to maintain fire separations indicated.

B. Fill all openings through floors and/ or walls.

C. Remove all combustible materials after installation.

END OF SECTION

SECTION 07915

JOINT SEALERS AND CAULKING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all sealant work as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Definition:

1. Words "caulk" and "caulking" mean sealant work.

2. "Interior wet areas" means toilets, showers, kitchens and similar areas.

C. Work Included: Provide and install sealants at following locations:

1. Flashing reglets and retainers.

2. Exterior wall joints.

3. Masonry control joints, exterior and interior, and between masonry and other materials.

4. Flooring joints.

5. Isolation joints.

6. Paving and sidewalk joints.

7. Joints between paving or sidewalks and buildings.

8. Joints at penetrations of walls, floors and decks by piping and other services and equipment.

9. Exterior and interior perimeters of all exterior and interior door and window frames, louvers, grilles, etc.

10. Solidly bed all thresholds at exterior doors.

11. Caulk plumbing fixtures to floor and wall (silicone).

12. Other joints where caulking, sealant or compressible sealant is indicated.

1.02 QUALITY STANDARDS

A. Sealant materials: ASTM C603 and C510, F.S. TT-S-001543A, TT-S-00227E (3) and TT-S-00230C (2) as they apply.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. Five (5) cured samples of each color for color selection.

B. Project data:

1. Manufacturer's data sheets.

2. Guarantee: See Section 01750

1.04 JOB CONDITIONS

A. Perform sealant work only when ambient temperature is 40 degF (5 deg. °C) or higher.

B. Apply only to joints which are free of material which will inhibit bond.

C. Apply to cementitious materials only when thoroughly cured and dry.

1.05 GUARANTEE

A. Warrant that sealant work will be free of defects for a period of three years from date of final acceptance.

B. Failure of watertightness constitutes defect.

C. Remove any defective work or materials and replace with new work and materials and repair any other work damaged as a result of defective sealant work or materials at no additional expense to Owner.

D. Warranty signed by applicator.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Polyurethane sealants:

   a. Base: MAMECO International; Sika Chemical Corp.; Sonneborn-Contech; Tremco, Inc. (Dymeric); and Pecora (Dynatrol I or Dynatrol II).

2. Silicone sealants:

   a. Base: General Electric Co.; Dow Corning Corp; and Pecora.

3. Compressible sealant:

   a. Base: Sandell Manufacturing Co., Inc.

4. Acrylic sealants:

   a. Base: MAMECO International; Sonneborn-Contech; Tremco; and Pecora.

5. Other manufacturers desiring approval comply with Section 01640.

B. Sealants - General:

1. Provide colors matching materials being sealed. Where compound is not exposed to view in finished work, provide manufacturer's color which has best performance.

2. Provide non-sagging sealant for vertical joints.

3. Sealants for horizontal joints may by self-leveling.

4. Before use of any sealant, investigate its compatibility with joint surfaces, fillers and other materials in joint system. Use only compatible materials.

5. Obtain sealing compounds from manufacturers who will provide manufacturers' field service representatives at project site for purpose of advising and instructing installers in proper procedures. Provide such services, at no expense to Owner.

6. Exterior areas:
   a. Polyurethane
   b. Silicone
7. Interior wet areas: Silicone.
8. Interior non-wet areas:
   a. Acrylic, Polyurethane, Silicone.
9. Use compressible sealant where indicated.
10. Use epoxy sealant where indicated.

C. Sealant, polyurethane: To be one component type, Polyurethane based, non-sag elastomeric sealant per ASTM C-920, type S, Grade NS. Suitable for vertical and horizontal joints where maximum depth of sealant shall not exceed ½"; suitable for use with masonry, concrete, or metal frames. Applies to joints in walls, floors, or around door or window frames adjacent to masonry.

D. Sealant, acrylic: One or two component.

E. Sealant, silicone: One or two component.

F. Joint cleaner: As recommended by sealant manufacturer.

G. Primer-sealer: As recommended by sealant manufacturer.

H. Bond breaker: As recommended by sealant manufacturer.

I. Sealant backer rod: Rod stock of polyethylene, polyethylene jacketed polyurethane foam, or other flexible, non-absorbent, non-bituminous material recommended by sealant manufacturer to:

1. Control joint depth.
2. Break bond of sealant at bottom of joint.
3. Provide proper shape of sealant bead.

J. Sealant, compressible:

1. Size so that width of material is twice joint width.
2. Foamed polyurethane strip saturated with polymerized polybutylene waterproofing coated on front face with non-reactive release agent that will act as bond breaker for applied sealant. Polytite-B.

K. Adhesive, compressible sealant: Sandell No. 14.

L. Sealant, epoxy: Sikadur Hi-Mod Gel.

PART 3 - EXECUTION

3.01 PREPARATION

A. Clean all joints.

B. Prime if manufacturer recommends.

3.02 INSTALLATION

A. Seal building and any joints or areas which will permit penetration of moisture, unless sealing work is specifically required under other sections. Make all joints water and airtight.

B. Where required, prime joint surfaces.

1. Limit application to surfaces to receive caulking.

2. Mask off adjacent surfaces.

C. Make depth of sealing compounds not more than one-half width of joint, but in no case less than 1/4".

1. Subcaulk joints that are deep, or joints without suitable backstop, to proper depth.

D. Correctly size backer.

E. Apply bond breaker where required.

F. Use sufficient pressure to fill all voids.

G. Upon completion, leave caulking with smooth even finish.

H. Install compressible sealant using Poly-Tool or Poly-Guide to position at depth indicated.

1. Take care to avoid contamination of sides of joints.

2. Protect side walls of joint (to depth of caulking) with Sandell No. 3 tape.

3. Install with adhesive on 2 faces in contact with sides of joints.

I. Do not use silicone sealant in joints scheduled to receive paint.

END OF SECTION

DIVISION 8
DOORS AND WINDOWS

Riverside County – Volunteers in Medicine Clinic
82-915 Avenue 48
Indio, CA.
Project #0901.00

SECTION 08110

METAL DOORS AND FRAMES

PART 1 - GENERAL

1.01 SUMMARY:

A. Section Includes:

1. Standard Hollow Metal Frames.
2. Hollow Metal Doors and Panels.

B. Related Sections:

1. Section 06200 - Finish Carpentry.
2. Section 08213 – Hollow Metal Frames (Trimless Frames)
3. Section 08710 - Finish Hardware.
4. Section 08800 – Glass & glazing
5. Section 09900 - Painting.

1.02 REFERENCES:

A. ASTM E152, Fire Tests of Door Assemblies.

B. ASTM A525, specification for Steel Sheet, Zinc Coated.

C. ANSI/SDI 100, Recommended Specifications for Standard Steel Doors and Frames.

D. ANSI/SDI 119, Performance test Procedures for Steel Door Frames and Anchors.

E. NFPA 80, Standard for Fire Doors and Windows.

F. NFPA 101, Life Safety Code.

G. ANSI A151.1, Test Procedure and Acceptance Criteria for Physical Endurance, Steel Doors and Frames.

H. ANSI A224.1, Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.

I. SDI 107, Hardware on Steel Doors, Reinforcement Application.

J. Applicable model building code.

K. California Title 24.

L. UBC 7-2, Fire Tests of Door Assemblies.

M. UBC 7-4, Fire Tests of Window Assemblies.

1.03 SUBSTITUTIONS & SUBMITTALS:

A. Shop Drawings: Submit six copies. Indicate door and frame elevations, sections, materials, gauges, finish, fabrication/erection details, locations of hardware and vision lites and louvers.

B. Certification of Compliance: Provide letter of certification that all materials comply with these Specifications.

C. Samples: Submit as requested by Architect. Samples shall be returned after review.

D. Substitutions: Make substitution requests in accordance with Division 1. Architect reserves the right to access an hourly fee to review and evaluate substitutions.

1.04 QUALITY ASSURANCE:

A. Steel Door and Frame Supplier: direct factory supplier who employs a Certified Door Consultant (CDC) or person with equivalent experience, available at reasonable times during course of Work, for consultation to Owner, Architect and Contractor.

B. Label Construction: A physical label or approved marking shall be affixed to the fire door or fire door frame at an authorized facility as evidence of compliance with procedures of the labeling agency.

1.05 DELIVERY, STORAGE, AND HANDLING:

A. Delivery: coordinate delivery to the appropriate locations (shop or field) for installation.

B. Storage of Doors: Doors shall be stored in an upright position under cover. Place the units on at least 4" (101.6 mm) wood sills on floors in a manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters which create a humidity chamber and promote rusting. If the corrugated wrapper on the door becomes wet, or moisture appears, remove the wrapper immediately. Provide a 1/4" (6.35 mm) space between the doors to promote air circulation.

C. Storage of Frames: Frames shall be stored under cover on 4" (101.6 mm) wood sills on floors in a manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters, which create a humidity chamber and promote rusting. Assembled frames shall be stored in a vertical position, five units maximum in a stack. Provide a 1/4" (6.35 mm) space between frames to promote air circulation.

D. Inspect delivered items for damage. Minor damage may be repaired provided repaired items are equal to new Work and accepted by the Architect. Provide new items when directed. Comply with VOC regulations when repairing damage.

1.06 SEQUENCING AND SCHEDULING

A. Deliver doors and frames to the jobsite in a timely manner so not to delay progress of other trades.

B. Issue purchase orders to suppliers so as not to interfere with normal quoted delivery times.

1.07 WARRANTY

A. Steel doors and frames supplied with a one (1) year warranty against defects in materials and workmanship.

1.08 ENVIRONMENTAL

A. Packaging and Disposal: package in biodegradable packs, paper or cardboard boxes. Dispose of non-biodegradable packs, plastic, styrofoam, polystyrene, and polyurethane to a licensed or authorized collector for proper disposal. Comply with the applicable standards and laws for VOC.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Steelcraft Manufacturing Co., Cincinnati, Ohio

B. Curries Co., Mason City, Iowa

C. Ceco Corp., Oakbrook, Illinois

2.02 MATERIALS:

A. Steel requirements: doors and frames manufactured of commercial quality, stretcher leveled flatness, cold rolled steel per ASTM A366 and A568 general requirements. Galvanized doors and frames to A60 minimum coating weight, dull finish. Internal reinforcing may be manufactured of hot rolled pickled and oiled steel per ASTM A569.

B. Coating Materials:

1. Primer: Manufacturer's standard rust inhibiting primer to ANSI A224.1.

2. Bonderized

C. Core Materials

1. Doors: non-toxic honeycomb core manufactured of hot rolled, pickled and oiled steel per ASTM A569.
2. Fire labeled doors with temperature rise rating: mineral fiber core, temperature rating per code.

D. Glass Light Frames: flush with door face, fabricated of 18 ga. steel.

2.03 FABRICATION

A. Doors

1. Classification: SDI

GRADE	MODEL	GAUGE	DESCRIPTION	CYCLES
III	1	16	Extra Heavy Duty, Full Flush	1,000,000

2. Vertical lock edges:

(1) Beveled 1/8 inch in 2 inches.

(2) Exterior, seamless construction by tack welding and fill.

(3) Interior, manufacturers standard interlocking and glued edge.

3. Top and bottom channels:

(1) Not less than 16 gauge, flush or inverted.

(2) Welded to the face sheets.

(3) Exterior doors: flush steel top channel.

4. Astragals: flat security type or Z type per details.

B. Frames (Standard Type)

1. Construction:

(1) 16 gauge cold rolled steel at interior locations; 16 gauge galvanized at exterior locations.

(2) 12 gauge, full width, face and head reinforcement for non-labeled openings over 48" in width.

(3) Closer reinforcement and high frequency hinge reinforcement.

2. Corner Construction: weld full depth and face, grind smooth and re-prime. Weld includes faces, rabbets, soffit and stops.

Provide temporary shipping spreaders to help protect frames from damage during transit and handling. Remove spreaders prior to setting frame.

C. Frame Anchors

1. Attachment to Masonry Construction:

   (1) Galvanized

   (2) Adjustable, flat, corrugated or perforated T shaped with leg not less than 2 inches wide by 10 inches long, or wire type, not less than 3/16 inches in diameter.

2. Attachment to Drywall Construction:

   (1) Wood Stud type to accommodate frame jamb depth and face dimension on welded type frame.

3. Provide one anchor for every 30 inches of jamb or fraction thereof.

4. Floor Anchor: angle clip type.

   (1) 16 Gauge.

   (2) Two fasteners per jamb.

   (3) Weld to bottom of each jamb.

5. Masonry or Concrete

   (1) 3/8 inch countersunk flat head bolt and expansion shields.

   (2) Locate 6 inches from top and bottom and maximum 24 inches on center.

   (3) Weld pipe spacers or other type of spacers, per manufacturers standard design, in back of frame soffit.

D. Preparation for Hardware

1. Reinforce per SDI 107.

2. Lock and Closer reinforcement: box type.

3. Door Hinge reinforcement: 7 gauge or equivalent, manufacturer's standard.

4. Punch strike jambs to receive three silencers; double leaf frames to receive manufacturer's standard preparation.

5. Hardware locations per "Recommended Locations for Builders' Hardware for Standard Steel Doors and Frames".

6. Provide welded in place guards for all hardware cutouts in frame.

7. Electrical preps: provide welded-in-place boxes, special designed anchors, raceways and access panels as required.

PART 3 EXECUTION

3.01 SETTING FRAMES

A. Set frames in accordance with SDI 105.

B. Set welded frames in place prior to construction of adjacent partition work. Properly brace frame until permanent anchors are set.

C. Install frames plumb and true with only hairline seam at corner joints.

D. Install fire rated frames in accordance with NFPA 80.

3.02 DOOR INSTALLATION

A. Clearances:

1. 1/8 inch between door and frame at head and jambs.

2. 1/8 inch at meeting edges of pairs.

3. 1/8 inch at transom panels, without transom bar.

4. 3/4 inch above finish floor at sills without threshold.

5. 1/4 inch at sill with threshold.

3.03 ADJUSTMENT AND CLEANING

A. Remove dirt and excess sealants, mortar, or glazing compounds from exposed surfaces.

B. Adjust moving parts for smooth operation. Use shims as required.

C. Fill dents, holes, etc. with metal filler and sand smooth and flush with adjacent surfaces. Paint to match adjacent surface.

END OF SECTION

SECTION 08210

WOOD DOORS AND FRAMES

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment and services for all wood doors as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Finish hardware: Section 08710.

2. Metal doors and frames: Section 08100.

3. Painting: Section 09900.

4. Glazing: Section 08800.

1.02 QUALITY ASSURANCE

A. Manufacturing standards:

Architectural Woodwork Institute (AWI) Quality Standards, Section 1300, Premium Grade.

B. Fitting tolerances:

1. 1/8" clearance at jambs, heads and meeting stiles.

2. 1/4" clearance at bottoms.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Sample:

1. (2) 8" x 12" samples showing finish.

B. Product data:

1. Guarantee.

2. Product data from manufacturer.

C. Shop drawings indicating sizes, shapes, fenestration, etc.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver doors just prior to installation.

B. Identify as to type and location.

C. Provide manufacturer's identifying mark on each door.

D. Keep all doors protected with wrappings and out of contact with any moisture or sun.

1.05 GUARANTEE

A. Guarantee doors in writing for life of installation against defects including:

1. Delamination.

2. Warp or twist of 1/4" or more.

3. Telegraphing of any part of core through face veneer.

4. Surface variation exceeding 1/100" or more in 3" span.

5. Any other defect which may impair or affect performance of door for purpose for which it is intended.

B. Remove and replace defective doors; include cost of removal of defective units, rehanging and refinishing of replacement units.

PART 2 - PRODUCT

2.01 MATERIALS

A. Acceptable manufacturers:

1. Wood doors:

   a. Base: Weyerhaeuser

2. Other manufacturers desiring approval comply with Section 01640.

B. Doors, wood: Flush medium density overlay (MDO) faced, paint finished. (See Section 09900).

1. Face veneer: MDO both faces.

2. Thickness: 1-3/4" solid core, or as noted on Door Schedule on drawings.

C. Solid wood core: 5-ply particle board non-rated (DPC-1).

1. Type II water resistant adhesive.

2. Engineered fiber crossbanding, securely bonded to core.

D. Transom Panels: Wherever transom panels or side panels of wood are shown in same framing system as wood doors, provide panels which match quality and appearance of associated wood doors, unless otherwise indicated. Fabricate matching panels with same construction, thickness, exposed surfaces and finish as specified for associated doors.

2.02 FABRICATION

A. Factory machine doors for application of hardware.

B. Factory bevel vertical edges, 1/8" in 2" (1 in 16) on lock and butt stile.

C. Cutouts:

1. Make cutouts accurately and neatly.

2. Seal cut edges with varnish.

3. Provide two sets of wood stop moldings for all openings, one side removable, to completely cover cut edges.

4. Neatly miter stops at corners.

5. Finish to match door.

D. Seal top and bottom and reseal field cuts.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of openings to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Do not hang damaged, warped, or stained doors.

B. Condition doors to prevailing humidity prior to hanging.

C. Fit doors to frames and machine for hardware, to whatever extent not previously worked at factory.

D. Install doors in accord with manufacturer's instructions, and as indicated.

E. Adjust for proper fit and uniform clearance.

F. Finish Doors per Section 09900: Painting.

END OF SECTION

SECTION 08410

ALUMINUM ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all storefront and entrance as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Joint Sealers: Section 07900.

2. Finish Hardware: Section 08710.

C. Work installed but not furnished:

1. Glazing: Section 08800.

2. Glass Unit Masonry: Section 04270.

1.02 QUALITY ASSURANCE

A. Fabrication, erection and finishing/standards: Applicable standards of AA, AAMA and AWS.

B. Structural considerations: In accord with local building codes.

C. Comply with all standards and requirements listed under testing.

D. Welding and welders:

1. Utilize skilled and qualified welders, licensed where required in accord with local building regulations.

2. Perform welding in conformance with AWS structural welding code.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Product data:

1. Manufacturer's details and product information.

2. Guarantee: See Section 01750.

B. Samples:

1. Aluminum finish specified.

2. Components, 12 in. square, or full-size, as applicable.

C. Shop drawings

1.04 GUARANTEE

A. Written guarantee signed jointly by fabricator, installer and Contractor, agreeing to repair or replace any items of work performed under this section which fail.

1. Failure includes defects in materials, workmanship, water tightness of assembly, caulking, glazing or any other defects of storefront system which affects its ability to perform as weather tight envelope.

2. Guarantee period is two (2) years from date of acceptance.

B. Two (2) year guarantee on insulating glass units.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Storefront manufacturers:

a. Base: U.S. Aluminum Corp., or acceptable substitute.

B. Aluminum: ASTM B221, 6063-T5 alloy.

C. Finish: Baked factory finish- Kynar 500 to match "Frazee" #7804D- Clay Urn

D. Storefront: U.S. Aluminum FT 451 "flush-in", 2 in. x 4 1/2 in. extrusion size, to receive 1" insulating glass, and FF 450 "flush-in" 1 ¾" x 4 ½" extrusion size to receive ¼" single glazing.

1. Complete extruded aluminum framing system and glazing.

2. Include sills, mullions, division bars, anchors and accessories.

3. Provide complete system under single responsibility.

E. Fasteners: Anodized aluminum or non-magnetic stainless steel which will not cause electrolytic action or corrosion.

1. Provide Phillips flat-head screws where exposed.

2. Finish exposed aluminum fasteners to match specified aluminum finish.

F. Joint Sealers: As specified in 07900.

1. Use exposed sealants of color to match aluminum finish.

2. Provide and install all sealants and caulking required within and around storefront as work of this section, in accord with manufacturer's recommendations.

G. Glazing: See Section 08800 for glass to be installed under this section.

H. Brackets, anchors and reinforcements:

1. Aluminum wherever possible.

2. Where steel is required, hot-dip galvanize after fabrication, with minimum G-90 zinc coating, complying with ASTM A124, or use 300 series stainless steel.

I. Flashings: Minimum 0.04" aluminum.

1. Finish to match storefront.

J. Doors:

1. U.S. Aluminum 400 Series- medium stile with 9 ½" bottom rail to meet ADA requirements. Finish shall be Baked Factory Finish- Kynar 500 to match "Frazee" #7804D- Clay Urn. Glassing stops shall accept 1" insulating glass.

2. Finish for all hardware, closers, etc. shall match color of door frame, unless otherwise specified in Section 08710- Finish Hardware.

2.02 FABRICATION

A. Fully degrease and clean members prior to assembly or application of sealing compound or protective coatings.

B. Weld by methods recommended by manufacturer and AWS to avoid discoloration at welds.

C. Grind exposed welds smooth and restore finish.

D. Ease corner of cut edges to a radius of approximately 1/64 in.

E. Conceal fasteners wherever possible.

F. Fit and assemble work at shop to maximum extent possible.

G. Maintain true continuity of line and accurate relation of planes and angles.

H. Provide secure attachment and support at mechanical joints, with hairline fit of contacting members.

I. Reinforce work as necessary to withstand wind loadings and to support system.

J. Separate dissimilar metals with bituminous paint or preformed separators to prevent corrosion.

K. Separate metal surfaces at moving joints with plastic inserts or other non-abrasive concealed inserts to permanently prevent freeze-up of joint.

L. Reinforce frames for hardware.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Installation assumes responsibility for performance.

3.02 INSTALLATION

A. Comply fully with manufacturer's shop drawings, erection drawings, and recommendations for installation.

B. Set units plumb, level and true to line.

C. Anchor securely in place.

D. Separate metal surfaces from sources of corrosion or electrolytic action.

E. Set sill and base members in a bed of sealant.

F. Provide joint fillers or gaskets for weather tight construction.

G. Clean aluminum surfaces promptly after installation.

H. Exercise care to avoid damage to protective coating, if any.

I. Caulk all joints within and at perimeter of system.

3.03 CLEANING AND PROTECTION

A. Clean surface promptly after installation of components.

B. Exercise care to avoid damage to finish, wall members, fastenings, etc. and to protective coating, if any.

C. Remove excess glazing and sealant compounds and dirt and leave clean.

D. Protect work and take other precautions required to ensure that work will be without damage at time of acceptance.

END OF SECTION

Riverside County – Volunteers in Medicine Clinic
82-915 Avenue 48
Indio, CA.
Project #0901.00

SECTION 08710

FINISH HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Door Hardware.

B. Related Sections:
   1. Section 06200 - Finish Carpentry: Finish Hardware Installation
   2. Section 07900 - Joint Sealers – exterior thresholds
   3. Section 08100 - Metal Doors and Frames
   4. Section 16010 – Basic Electrical Requirements

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.
   1. Windows.
   2. Cabinets, including open wall shelving and locks.
   3. Signs, except where scheduled.
   4. Toilet accessories, including grab bars.
   5. Installation.
   6. Rough hardware.
   7. Conduit, junction boxes & wiring.

1.2 REFERENCES:

A. Use date of standard in effect as of Bid date.
B. American National Standards Institute – ANSI 156.18 – Materials and Finishes.
C. ICC/ANSI A117.1 - 1998 – Specifications for making buildings and facilities accessible.
D. ADA – Per CBC.
E. BHMA – Builders Hardware Manufacturers Association
F. DHI – Door and Hardware Institute
G. NFPA – National Fire Protection Association
   1. NFPA 80 – Fire Doors and Windows
   2. NFPA 105 – Smoke and Draft Control Door Assemblies
   3. NFPA 252 – Fire Tests of Door Assemblies
H. UL – Underwriters Laboratories
   1. UL10C – Positive Pressure Fire Tests of Door Assemblies.
   2. UL 305 – Panic Hardware
I. WHI – Warnock Hersey Incorporated State of California Building Code
J. Local applicable codes

K. SDI – Steel Door Institute
L. WIC – Woodwork Institute of California
M. AWI – Architectural Woodwork Institute
N. NAAMM – National Association of Architectural Metal Manufacturers

1.3 SUBMITTALS & SUBSTITUTIONS

A. SUBMITTALS: Submit seven (7) copies of schedule per Section 01340. Organize vertically formatted schedule into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Include following information:

1. Type, style, function, size, quantity and finish of hardware items.
2. Use BHMA Finish codes per ANSI A156.18.
3. Name, part number and manufacturer of each item.
4. Fastenings and other pertinent information.
5. Location of hardware set coordinated with floor plans and door schedule.
6. Explanation of abbreviations, symbols, and codes contained in schedule.
7. Mounting locations for hardware.
8. Door and frame sizes, materials and degrees of swing.
9. List of manufacturers used and their nearest representative with address and phone number.
10. Catalog cuts.
11. Wiring Diagrams.
12. Manufacturer's technical data and installation instructions for electronic hardware.
13. Date of jobsite visit.

B. Bid and submit manufacturer's updated/improved item if scheduled item is discontinued.

C. Make substitution requests in accordance with Division 1. Include product data and indicate benefit to the Project. Furnish operating samples on request.

D. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, wiring diagrams, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.4 QUALITY ASSURANCE:

A. Qualifications:
   1. Hardware supplier: direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.
      a) Responsible for detailing, scheduling and ordering of finish hardware.

B. Hardware: Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.

C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.

D. Fire-Rated Openings: NFPA 80 compliant. Hardware UL10C / UBC Standard 7-2 (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
   1. Note: scheduled resilient seals may exceed selected door manufacturer's requirements.
   2. See 2.6.E for added information regarding resilient and intumescent seals.

E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions.
   1. Where scheduled item is now obsolete, bid and furnish manufacturer's updated item at no additional cost to the project.

1.5 DELIVERY, STORAGE AND HANDLING:

A. Delivery: coordinate delivery to appropriate locations (shop or field).
   1. Permanent keys and cores: secured delivery direct to Owner's representative.

B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.

C. Storage: Provide securely locked storage area for hardware, protect from

moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.6 PROJECT CONDITIONS AND COORDINATION:

A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical as the same operation and quality as type specified, subject to Architect's approval.

B. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
Furnish related trades with the following information:

1. Location of embedded and attached items to concrete.

2. Location of wall-mounted hardware, including wall stops.

3. Location of finish floor materials and floor-mounted hardware.

4. Locations for Conduit and raceways as needed for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.

5. Manufacturer templates to door and frame fabricators.

C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

1.7 WARRANTY:

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties:

1.	Locksets:	Three years.
2.	Closers:	Ten years mechanical Two years electrical.
3.	Hinges:	One year.
4.	Other Hardware:	Two years.

1.8 COMMISSIONING:

A. Conduct these tests prior to request for certificate of substantial completion:

1. Installer shall test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

ITEM:	MANUFACTURER:
Hinges	(IVE) Ives
Key System	(SCH) Schlage
Locks	(SCH) Schlage
Closers	(LCN) LCN
Kick plates	(IVE) Ives
Stops & Holders	(IVE) Ives
Seals & Bottoms	(PEM) Pemko
Armor collar	(KEE) Keedex

2.2 HINGING METHODS:

A. Drawings typically depict doors at 90 degrees; doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180-degree opening. Advise architect if 8-inch width is insufficient.

B. Conform to manufacturer's published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled. Where manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices, and notify Architect of deviation from scheduled hardware.

C. Conventional Hinges: Steel or stainless steel pins and concealed bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.
1. Out swinging exterior doors: non-ferrous with non-removable (NRP) pins and security studs.

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

A. Mortise Locksets and Latchsets: as scheduled.
1. Chassis: cold-rolled steel, handing field-changeable without disassembly.
2. Latch bolts: 3/4 inch throw stainless steel anti-friction type.
3. Lever Trim: through-bolted, accessible design, cast lever or solid extruded bar type levers as scheduled. Filled hollow tube design unacceptable.
   a) Spindles: security design independent breakaway. Breakage of outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
4. Thumbturns: accessible design not requiring pinching or twisting motions to operate.
5. Deadbolts: stainless steel 1-inch throw.
6. Electric operation: Manufacturer-installed continuous duty solenoid.
7. Strikes: 16 gage curved steel, bronze or brass with 1 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
8. Scheduled Lock Series and Design: Schlage L series, 17A design.
9. Certifications:
   a) ANSI A156.13, 1994, Grade 1 Operational, Grade 1 Security.
   b) ANSI/ASTM F476-84 Grade 31 UL Listed.

2.5 CLOSERS

A. Surface Closers
1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
2. ISO 2000 certified. Units stamped with date-of-manufacture code.
3. Independent lab-tested 10,000,000 cycles.
4. Non-sized and adjustable. Place closers inside building, stairs and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Advanced Variable Backcheck (AVB): where scheduled, these units commence backcheck at approximately 45 degrees.
7. Adjustable to open with not more than 5.0 lbs pressure to open at exterior doors and 5.0 lbs at interior doors. As allowed per California Building Code, Section 1133B.2.5, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15 lbs.
8. Separate adjusting valves for closing speed, latching speed and back check, fourth valve for delayed action where scheduled.
9. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units. EDA arms: rigid main and forearm, reinforced elbow.

10. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
11. Exterior doors do not require seasonal adjustments in temperatures from 120 degrees F to –30 degrees F, furnish data on request.
12. Non-flaming fluid, will not fuel door or floor covering fires.
13. Pressure Relief Valves (PRV) not permitted.

2.6 OTHER HARDWARE

A. Automatic Flush Bolts: Low operating force design.

B. Overhead Stops: Non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.

C. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.

D. Door Stops: Provide stops to protect walls, casework or other hardware.

1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.
2. Locate overhead stops for maximum possible opening. Consult with Owner for furniture locations. Minimum: 90 deg stop / 95 deg deadstop. Note degree of opening in submittal.

E. Seals: Finished to match adjacent frame color. Resilient seal material: polypropylene, nylon brush, or solid high-grade neoprene. UL label applied to seals on rated doors. Substitute products: certify that the products equal or exceed specified material's thickness and durability.
1. Proposed substitutions: submit for approval.
2. Solid neoprene: MIL Spec. R6855-CL III, Grade 40.
3. Non-corroding fasteners at in-swinging exterior doors.
4. Sound control openings: Use components tested as a system using nationally accepted standards by independent laboratories. Ensure that the door leafs have the necessary sealed-in-place STC ratings. Adhesive mounted components not acceptable. Fasten applied seals over bead of sealant.

5. Fire-rated Doors, Resilient Seals: UL10C / UBC Standard 7-2 compliant. Coordinate with selected door manufacturers' and selected frame manufacturers' requirements. Where rigid housed resilient seals are scheduled in this section and the selected door manufacturer only

requires an adhesive-mounted resilient seal, furnish rigid housed seal at minimum, or both the rigid housed seal plus the adhesive applied seal. Adhesive applied seals alone are deemed insufficient for this project where rigid housed seals are scheduled.

6. Fire-rated Doors, Intumescent Seals: Furnished by selected door manufacturer. Furnish fire-labeled opening assembly complete and in full compliance with UL10C / UBC Standard 7-2. Where required, intumescent seals vary in requirement by door type and door manufacture -- careful coordination required. Adhesive-applied intumescent strips are not acceptable, use concealed-in-door-edge type or kerfed-in-frame type.

F. Automatic door bottoms: low operating force units. Doors with automatic door bottoms plus head and jamb seals cannot require more than two pounds operating force to open when closer is disconnected.

G. Thresholds: As scheduled and per details. Comply with CBC Section 1133B.2.4.1. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.

1. Exteriors: Seal perimeter to exclude water and vermin. Use butyl-rubber or polyisobutylene sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Non-ferrous 1/4 inch fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors (SS/FHSL).
2. Fire-rated openings, 90 min. or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, request direction from Architect.
3. Fire-rated openings, 3 hour duration: Thresholds, where scheduled, to extend full jamb depth.
4. Acoustic openings: Set units in full bed of Division-7-compliant butyl-rubber or polyisobutylene sealant, leave no air space between threshold and substrate.
5. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.

H. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.

I. Through-bolts: Do not use. Coordinate with wood doors; ensure provision of proper blocking to support wood screws for mounting panic hardware and door closers. Coordinate with metal doors and frames; ensure provision of proper reinforcement to support machine screws for mounting panic hardware and door

closers.

J. Silencers: Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Omit where adhesive mounted seal occurs. Leave no unfilled/uncovered pre-punched silencer holes.

2.7 FINISH:

A. Generally BHMA 626 Satin Chromium .
   1. Areas using BHMA 626 to have push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise noted.

B. Door closers: factory powder coated to match other hardware, unless otherwise noted.
   1. Provide satin-chrome plated arms, tracks and covers where scheduled bright metallic powder coat (MTLPC) not available.

C. Aluminum items: match predominant adjacent material. Seals to coordinate with frame color.

2.8 KEYING REQUIREMENTS:

A. Key System: Schlage Everest utility-patented keyway, conventional cylinders with the exception of interchangeable core type operating cylinders for panic hardware. Utility patent protection to extend at least until 2014. Key blanks available only from factory-direct sources, not available from after-market key blank manufacturers. For estimate use factory GMK charge. Initiate and conduct meetings(s) with Owner and I-R Security & Safety Consultants representatives to determine system keyway(s), structure and degree of geographic exclusivity. Furnish Owner's written approval of the system.

B.
   1. New factory registered master key system.
   2. Non-I.C. construction keying: furnish inserted type partial key. At substantial completion, remove inserts in Owner's presence; demonstrate consequent non-operability of construction key. Give all removed inserts and all construction keys to Owner, provide accounting for all the pieces.
   3. Temporary cylinders/cores remain Supplier's property.
   4. Furnish 10 construction keys.
   5. Furnish 2 construction insert extractor tool 35-057.
   6. Furnish 2 construction control keys.

C. Key Cylinders: furnish utility patented, 6-pin solid brass construction.

D. Cylinders/Cylinder cores: furnish keyed at factory of lock manufacturer where permanent records are maintained. Locks and cylinders same manufacturer.

E. Permanent keys: furnish secured shipment direct from point of origination to Owner.
   1. For estimate: 3 keys per change combination, 5 master keys per group, 5 grand-master keys, 3 control keys.

F. Bitting List: furnish secured shipment direct from point of origination to Owner upon completion.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS:

A. Installer to meet with the manufacturer's representatives of the locks, closers and exit devices prior to commencement of any installation for instruction on proper installation and adjustment.

3.2 PREPARATION:

A. Ensure that walls and frames are square and plumb before hardware installation.

B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
   1. Notify Architect of any code conflicts before ordering material.
   2. Locate levers, key cylinders, t-turn pieces, touchbars and other operable portions of latching hardware between 30 inches to 44 inches above the finished floor, per CBC Section 1133B.2.5.1.
   3. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.

C. Overhead stops: before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.3 INSTALLATION

A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.
   1. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
   2. When hardware is to be attached to existing metal surface and insufficient

reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.

3. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.
4. Replace fasteners damaged by power-driven tools.

B. Locate floor stops no more that 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.

C. Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

D. Locate overhead stops for minimum 90 degrees and maximum allowable degree of swing.

E. Drill pilot holes for fasteners in wood doors and/or frames.

F. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for reuse.

3.4. ADJUSTING

A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.
1. Hardware damaged by improper installation or adjustment methods to be repaired or replaced to Owner's satisfaction.
2. Adjust doors to fully latch with no more than 1 pound of pressure.
3. Adjust delayed-action closers on fire-rated doors to fully close from fully-opened position in no more than 10 seconds.

B. Inspection: Use hardware supplier. Include supplier's report with closeout documents.

C. Final inspection: Installer to provide letter to Owner that upon completion installer has visited the Project and accomplished the following:
1. Re-adjust hardware.
2. Evaluate maintenance procedures and recommend changes or additions, and instruct Owner's personnel.
3. Identify items that have deteriorated or failed.
4. Submit written report identifying problems

3.5 DEMONSTRATION:

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.6 PROTECTION/CLEANING:

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.3 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

B. Miscellaneous Material:

HW SET: 01

4	EA	HINGE	3CB1SH 4.5 X 4.5 NRP	626	IVE
1	EA	STOREROOM LOCK	L9480P 17A	626	SCH
1	EA	SURFACE CLOSER	4031 SHCUSH	689	LCN
1	SET	SEALS	303AS H & J	AL	PEM
1	EA	DOOR SWEEP	345A	AL	PEM
1	EA	ARMOR COLLAR	K-24-26D	626	KEE
1	EA	THRESHOLD	THRESHOLD AS DETAILED		

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Indio, CA.
Project #0901.00

HW SET: 02

4	EA	HINGE	3CB1 4.5 X 4	600	IVE
1	EA	STOREROOM LOCK	L9480P 17A	626	SCH
1	EA	SURFACE CLOSER	4031 HREG	689	LCN
1	EA	WALL STOP	WS401CVX	626	IVE
1	SET	SEALS	303AS H & J	AL	PEM
1	EA	DOOR SWEEP	345A	AL	PEM
1	EA	ARMOR COLLAR	K-24-26D	626	KEE
1	EA	THRESHOLD	THRESHOLD AS DETAILED		

HW SET: 03

4	EA	HINGE	3CB1 4.5 X 4	600	IVE
1	EA	HOTEL LOCK	L9486P 17A L583-375 & L583-363	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS401CVX	626	IVE
1	SET	SEALS	303AS H & J	AL	PEM
1	EA	DOOR SWEEP	345A	AL	PEM
1	EA	ARMOR COLLAR	K-24-26D	626	KEE
			SIGNS AND GRAPHICS BY OTHERS		
1	EA	THRESHOLD	THRESHOLD AS DETAILED		

HW SET: 04

1	EA	CYLINDER	20-001 BY AR CAM	626	SCH

BALANCE OF HARDWARE BY DOOR SUPPLIER

END OF SECTION

SECTION 08800

GLAZING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all glass and glazing including mirrors, as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

1.02 QUALITY ASSURANCE

A. Glass Standards:

1. All glass shall meet ASTM C1036-85, ANSI Z97.1, and CPSC 16 CFR 1201 Standards.

B. Glazing Standards:

1. Flat Glass Marketing Association "Glazing Manual".

2. SIGMA "Glazing Recommendations for Sealed Insulating Glass Units".

1.03 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. 12" x 12" of each specified type, class and thickness.

B. Project data:

1. Guarantee: See Section 01750.

1.04 JOB CONDITIONS

A. Do not proceed with installation under adverse weather conditions, or when temperatures are below or above manufacturer's recommended limitations.

1.05 GUARANTEE

A. Written 2-year guarantee signed by installer to cover weather tightness of installation including air and water integrity.

B. Written 2-year guarantee signed by manufacturer or fabricator of insulating glass units.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Glass types:

a. Base: Pittsburgh Plate Glass; Pilkington; or approved substitute.

2. Other manufacturers desiring approval comply with Section 01640.

B. Glass Materials:

1. Comply with indicated standards.

2. See "Glass Types Schedule" for listing of types.

C. Glazing compounds:

1. Non-sag, non stain type.

2. Pigmented to match frame units not requiring painting.

3. Compatible with adjacent surfaces.

4. For use in setting glass: One or two-part polyurethane or silicone sealant.

5. Sealant tape: Preformed butyl rubber sealant type of ribbon having a continuous neoprene rubber shim.

6. Gaskets: Polyvinyl chloride or neoprene, extruded, flexible, of profile and hardness required to receive glass and provide a watertight installation.

D. Setting blocks and spacers: Neoprene, compatible with sealants used.

1. Setting blocks: 70 - 90 durometer.

2. Spacers: 40 - 50 durometer.

3. Compressible filler stock: Closed-cell jacketed rod stock of synthetic rubber or plastic foam.

E. Shims, clips, springs, angles, beads, attachment screws and other miscellaneous items: As indicated or required.

F. Mirror edge sealant: Pittsburg Paints CRL-PPG mirror Edge Sealant - #UC 44554. Edges of all mirrors to be coated with edge sealant prior to installation. Applied per manufacturer's recommendations.

2.02 GLASS TYPES SCHEDULE (See Glazing Schedule on Drawing)

A. Fixed Glass:

Type A: 1" thick insulated glass: Outer layer – ¼" tempered Pilkington EverGreen Eclipse Advantage Radiant Low-E (#2 surface); Airspace – ½" air fill; Inner Layer – ¼" tempered Pilkington Solar E Low-E (#3 surface). (U= .31; SHGC= .26 and SC= .30)

Type B: Mirror - Float, 1/4", copper backing, polished chrome setting channels. Guaranteed 5 years against backing spoilage. Seal edges with CRL-PPG edge sealer.

B. Exterior Glass Entrance Doors:

Provide tempered insulating glass doors as shown on drawings manufactured by "Arcadia, Inc.".

1. Glass: 1" Insulating glass – Type A glass above.
2. Door style: Medium stile design (MS362 Series) with 6-11/16" high bottom rail. Each door shall include hard-backed poly pile weather-stripping for all edges of the door. Finish shall be PPG Duranar Coatings (2 coat system) to match "Hearthstone Brown" #2109-20 by Benjamin Moore.
3. Lockset: (1) Omnia Mortise Passage – N Lockset 2000 Series with 2 ½" backset – Satin Stainless Steel Finish; (1) Solid Brass Strike (4-7/8" x 1 ¼") – Satin Stainless Steel Finish; (1) Omnia #45 Lever Handle located on the interior and exterior side – Satin Stainless Steel Finish.
4. Door Swing: Offset pivot. Provide (1) set of Arcadia Standard ¾" offset pivots – Finish shall be PPG Duranar Coatings (2 coat system) to match "Hearthstone Brown" #2109-20 by Benjamin Moore.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine framing or glazing channel surfaces, backing, stop design, and conditions under which glazing is to be performed.

3.02 INSTALLATION

A. Do not install glass with edge damage, or mirrors with any silver flaking.

B. Contractor is responsible for correct glass size for each opening, within tolerances and dimensions established.

C. Comply with combined recommendations of material manufacturers, except where more stringent requirements are indicated.

D. As a minimum, comply with FGMA Glazing Manual and SIGMA Glazing Recommendations for Sealed Insulating Glass Units.

E. Install sealants as recommended by sealant manufacturer.

F. Install setting blocks in adhesive.

G. Provide spacers inside and out, of proper size and spacing, for all glass sizes larger than 50 united inches, except where gaskets are used for glazing. Provide 1/8" minimum bite of spacers on glass. Use thickness equal to sealant width. Use preshimmed tape, if tape is used.

H. Prevent sealant exudation from glazing channels of insulating glass.

1. Leave void at heel (or install compressible filler) at jambs and head.

2. Do not leave void (or install filler) at sill.

I. Miter cut and bond gasket ends together at corners.

J. Immediately after installation, attach crossed streamers to framing held away from glass. Do not apply anything to surfaces of glass.

K. Remove, and replace damaged glass.

L. All mirrors to be set on counters or splash ledges without full silicone bead to allow moisture to escape.

3.03 CLEANING AND PROTECTION

A. Maintain glass reasonably clean during construction, so that it will not be damaged by corrosive action and will not contribute to deterioration of other materials.

B. Wash and polish glass on both faces not more than 7 days prior to Owner's acceptance of work in each area. Comply with glass manufacturer's recommendations.

END OF SECTION

DIVISION 9
FINISHES

SECTION 09120

CEILING SUSPENSION SYSTEMS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all acoustic ceiling and drywall suspension systems as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Section 09510 – Acoustical Ceilings

2. Seismic bracing for mechanical and electrical equipment installed in ceilings: Division 15 and 16.

3. Section 09250 – Gypsum Board

4. Section 09545 – Wood Panel Ceilings – Grille

5. Section 09546 – Wood Panel Ceilings - Linear

6. Section 09547 – Wood Panel Ceilings – Channeled Vector

7. Section 09548 – Luminous Ceilings

8. Section 13020 – Special Monolithic Wood Louver Ceiling System

1.02 QUALITY ASSURANCE

A. Standard for suspension systems: ASTM C635.

B. Standard for installation: ASTM C636.

C. Title 24, C.C.R. Part 2, latest adopted C.B.C.

1.03 SUBMITTALS

A. Samples: Submit data for suspension system main tees and cross tees for review and acceptance.

B. Shop drawings:

1. Reflected ceiling plans: Submit ceiling suspension system layout to indicate ceiling modules and related lighting and mechanical systems. Drawings shall show components dashed behind suspended drywall.

2. Assembly drawings: Indicate module dimensions, accessory attachments, details of how 2' x 4' light fixtures and/or a/c diffusers will be framed, and installation of related components.

C. Manufacturer's data:

1. System details: Submit manufacturer's descriptive literature or standard drawings showing details of system with project conditions clearly identified, and manufacturer's recommended installation instructions.

2. Exposed trim to be manufacturer's standard color to match the T-bar system.

D. Maintenance materials: Provide additional main tees and cross tees.

1.04 DELIVERY, STORAGE AND HANDLING

A. Delivery of materials: Deliver materials in original, unopened packages clearly labeled with manufacturer's name, item description, part number, type and class, as applicable.

B. Inspection: Promptly inspect delivered materials, file freight claims for damage during shipment, and order replacement material, as required.

C. Storage: Store in manner that will prevent warpage, scratches, or damage of any kind. Prevent interference to/by other trades and any other adverse job conditions due to storage location or methods.

D. Handling: Handle in such manner to ensure against racking, distortion or physical damage of any kind.

1.05 PROJECT CONDITIONS

A. Existing conditions: (Include specific alteration work requirements for the project).

B. Environmental requirements:

1. Building conditions: Building shall be enclosed with all windows and exterior doors in place and glazed, and the roof watertight before installation of suspension system.

2. Interior temperature/humidity in building: Climatic conditions in areas to receive ceiling suspension systems shall range from 60°F (15.56° C) to 85°F (29.44° C) and relative humidity of not more than 70% shall be maintained before installation of components.

C. Coordination with other work:

1. General: Coordinate with other work supported by or penetrating through the ceiling, including mechanical and electrical work and partition systems.

2. Mechanical work: Ductwork above suspension system shall be complete and permanent heating and cooling systems operating.

3. Electrical work: Installation of conduit above suspension system shall be complete before installation of suspension system.

D. Protection: Protect completed work above suspension system from damage during installation of suspension system components.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Metal suspension systems (steel):

a. Base: Armstrong World Industries, Inc.

2. Other manufacturers desiring approval comply with Section 00440.

B. Acoustical ceiling suspension systems - General: Heavy duty systems, ASTM C635 and ASTM C636.

1. Main runner jointing by spliced interlocking ends; tab locks, pin locks, or other suitable connections; tie ends together.

2. Cross runners interlocking with main runners.

3. Provide types indicated.

4. Provide seismic bracing per drawings.

C. Suspension system for supporting acoustical ceilings.

1. Armstrong "Silhouette" XL 1/8" reveal 9/16" Bolt Slot system Heavy Duty suspension system. Factory baked polyester White finish.

2. Main Runners: #76018 (144", routs 12" o.c., notched 24" o.c. Heavy duty). Rotary stitched double web construction, web height of 1-3/4" with rectangular top bulb and 9/16" mitered flange with regressed center slot that accepts a 1/8" T-bolt.

3. Cross Tees: Double web construction, web height 1-3/4" with peaked roof top bulb and 9/16" mitered flange with regressed center slot. Staked on end detail allows cross tee removal. Double rotary stitched for cross tee stability and tight miter condition at all perimeter cuts.

6. Wall Track: Hemmed shadow moulding with prefinished flanges. #7873 (120", 3/8" x 3/8" shadow moulding, nominal 9/16"). Factory baked polyester Black finish.

D. Hangers:

1. Galvanized, soft annealed steel wire for general use.

E. Trim: Provide wall track as described above wherever ceiling supported by acoustical ceiling suspension system meets walls, partitions, other vertical elements, and other types of ceilings or ceiling fixtures; where ceiling mounted fixtures have integral flange trim, no additional trim is required.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 PREPARATION

A. Consult other trades involved before start of ceiling work to determine areas of potential interference.

B. Do not start installation until interferences have been resolved.

3.03 INSTALLATION - ACOUSTICAL CEILING SUSPENSION SYSTEM

A. Install in accord with ASTM C636, and manufacturer's instructions.

B. 12 ga. (min.) hanger wires may be used for up to and including 4'-0" x 4'-0" grid spacing along main runners. Splices will not be permitted in any hanger wires.

C. Provide 12 ga. hanger wires at the ends of all main and cross runners within 8" from the support or within 1/4 of the length of the end tee, whichever is least, for the perimeter of the ceiling area. End connections for runners which are designed and detailed to resist the applied horizontal forces may be used in lieu of the 12 ga. hanger wires subject to OSHPD approval.

D. Provide trapeze or other supplementary support members at obstructions to main hanger spacing. Provide additional hangers, struts or braces as required at all ceiling breaks, soffits or discontinuous areas. Hanger wires that are more than 1 in 6 out of plumb are to have counter-sloping wires.

E. Provide sets of four 12 ga. splayed bracing wires oriented 90 degrees from each other at the following spacing:

1. Place sets of bracing wires not more than 8 feet by 12 feet on center. Provide bracing wires at locations not more than 1/2 the spacings given in previous sentence, from each perimeter wall and at the edge of vertical ceiling offsets.

   The slope of these wires should not exceed 45 degrees from the plane of the ceiling and should be taut without causing the ceiling to lift. Splices in bracing wires are not permitted.

F. Fasten hanger wires with not less than 3 tight turns. Fasten bracing wires with 4 tight turns. Make all tight turns within a distance of 1-1/2 inches. Hanger or bracing wire anchors to the structure should be installed in such a manner that the direction of the wire aligns as closely as possible with the direction of the forces acting on the wire. Wire turns made by machine where both strands have been deformed or bent in wrapping can waive the 1 1/2" requirement, but the number of turns should be maintained, and be as tight as possible.

G. Separate all ceiling hanging and bracing wires at least 6 inches from all unbraced ducts, pipes, conduit, etc. It is acceptable to attach lightweight items, such as single electrical conduit not exceeding 3/4" nominal diameter, to hanger wires using connectors acceptable to OSHPD.

H. Attach all light fixtures to the ceiling grid runners to resist a horizontal force equal to the weight of the fixtures.

I. Flush or recessed light fixtures and air terminals or services weighing less than 56 pounds may be supported directly on the runners of a heavy duty grid system but, in addition, they must have a minimum of two 12 ga. slack safety wires attached to the fixture at diagonal corners and anchored to the structure above. All 4 ft. x 4 ft. light fixtures must have slack safety wires at each corner.

All flush or recessed light fixtures and air terminals or services weighing 56 pounds or more must be independently supported by not less than 4 taut 12 ga. wires each attached to the fixture and to the structure above regardless of the type of ceiling grid system used.

The 4 taut 12 ga. wires including their attachment to the structure above must be capable of supporting 4 times the weight of the unit.

J. Support surface mounted light fixtures by at least two positive devices which surround the ceiling runner and which are each supported from the structure above by a 12 ga. wire. Spring clips or clamps that connect only to the runner are not acceptable. Provide additional supports when light fixtures are 8 feet or longer.

K. Support pendant mounted light fixtures directly from the structure above with hanger wires or cables passing through each pendant hanger and capable of supporting 4 times the weight of the fixture. (See also Note H.)

L. Ceiling grid members may be attached to not more than 2 adjacent walls. Ceiling grid members should be at least 1/2 inch free of other walls. If walls run diagonally to ceiling grid system runners, one end of main and cross runners should be free and a minimum of 1/2 inch clear of wall.

M. At the perimeter of the ceiling where main or cross runners are not connected to the adjacent wall, provide interconnection between the runners at the free end to prevent lateral spreading. A metal strut or a 16 ga. wire with a positive mechanical connection to the runner may be used. Where the perpendicular distance from the wall to the first parallel runner is 12" or less, this interlock is not required.

N. Tightly secure supporting members to hangers to prevent vertical displacement and rotation to tolerance of 1/360 of span.

O. Install molding where ceilings meet walls, partitions other vertical elements, and other types of ceilings.

1. Support runners and border units on moldings.

2. Secure moldings to wall construction by fastening through holes drilled in web.

3. Space holes not more than 3" from each end and not more than 16" on center.

4. Draw up fasteners for tight set against vertical surfaces.

5. Miter cut inside and outside corners.

6. Level to a tolerance no more than 1 in 100.
7. Install moldings with exposed leg supporting bottom flange of exposed runners.

P. Leave suspension system ready to accept installation of acoustic materials.

Q. Coordinate installation with equipment support system.

END OF SECTION

SECTION 09205

FURRING AND LATHING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all metal furring and lathing for soffits and walls as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Furring for suspended gypsum wallboard ceilings: Section 09250.

2. Portland cement plaster for soffits and vertical surfaces: Section 09220.

1.02 QUALITY ASSURANCE

A. Wherever a fire-resistance classification is indicated or scheduled provide materials, accessories and application procedures which have been listed by U/L or tested according to ASTM E119-80 for type of construction.

B. Furring and lathing standards:

1. CBC – latest edition.

2. Applicable requirements of ASTM C841-80.

3. Metal Lath Association recommendations.

C. Materials standards:

1. Lath: ASTM C841-76 and ANSI/ASTM C847-77.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Product Data.

PART 2 - PRODUCT

2.01 MATERIALS

A. Acceptable manufacturers:

1. Furring and lathing: CEMCO

2. Other items as noted.

3. Other manufacturers desiring approval comply with Section 01640.

B. Metal lath: ASTM C841-76 (galvanized).

1. Flat or ribbed lath of weight required for type and support spacing. "CEM-Mesh K" or "CEM- Rib" with factory applied Kraft paper backing.

a. "CEM-Mesh K": 2.0 lbs. - 24" o.c. framing;
(ESR-1623) 2.0 lbs. - 16" o.c. framing.

b. "CEM- Rib": 3.4 lbs. - 3/8" high ribs.
(ESR-1623)

2. Tub and Shower areas: "CEM- Mesh K"

a. 2.0 lbs. - 16" o.c. framing.

C. External corner beads: No. IA Expanded corner bead.

D. Inner corner reinforcement: 2" x 2" min. Cornerite pre-shaped to 105 degrees for snug fit.

D. Casing beads:

1. Where plaster abuts dissimilar construction: No. 66 expanded flange casing bead or "Fry" per details on drawings. Use 7/8" width on traditional stucco thicknesses. Use 1 ¼" width for tile applications. See details for location and method of application.

2. At bottom of plywood edges at sill plates: No. 66 short flange casing bead appropriate to thickness of plywood. See details for application method.

E. Control and/or expansion joints:

1. "Fry" reveals:

a. Where detailed on drawings. Factory prime painted ready for field painting.

b. Factory fabricated intersections:

(1) "+" intersections.

(2) "T" intersections.

(3) "L" intersections.

c. Connector clips.

F. Vent (Slotted) Reveals: Extruded aluminum, 0.0625" thick vented drip screed.

1. Finish: Factory prime painted ready for field painting.

2. Fry Reglet Corp.

3. Provide full radius pieces where required.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 INSTALLATION - LATH

A. Use metal lath of type and weight required to comply with referenced standards.

1. Provide intermediate metal furring supports if required.

B. Locate end laps over supports. Lap minimum 1". Stagger end laps over different supports.

C. For vertical surfaces: Use nails with 3/4" penetration into wood or as required by local building code. Exterior attachments must be zinc coated, or 16 ga. galv. staples 7/8" x 3/4" wide. Use 1-1/4" long staples as conditions require.

D. For horizontal surfaces: Use 11 ga. galv. nails 1-1/4" long with a 7/16" head, or 16 ga. galv. staples, 7/8" long x 3/4" wide - 6" oz.. Use 1-1/4" long staples as required.

E. For metal framing members: Use self-tapping 1/2" x 3/4" phillips head with 1/2" wafer head.

3.03 INSTALLATION - PLASTER ACCESSORIES

A. Attach accessories to bases or substrates with galvanized fasteners spaced maximum 6" on center.

1. Nail to masonry, concrete or wood.

2. Use self-tapping metal screws for all metal stud framing.

B. Use single length beads wherever length of run does not exceed longest standard stock length available.

1. Miter or cope at corners.

2. Set beads with maximum tolerance of 1 in 100 from plumb or level.

3. Shim as required and align joints with factory fabricated concealed splices or tie plates.

C. Install corner reinforcement at all external corners.

D. Install control joints at locations indicated; if not indicated, provide control joints to divide plaster into areas of not more than 100 square feet, and locate at natural crack locations. Architect must approve all locations prior to installation.

1. Install in accord with manufacturer's instructions.

END OF SECTION

SECTION 09220

PORTLAND CEMENT PLASTER

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all Portland cement plaster for soffits and vertical surfaces as indicated, in accord with provisions of Contract Documents. Includes all soffited areas, and other wall or ceiling conditions.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related Work specified elsewhere:

1. Furring and lathing: Section 09205.

1.02 QUALITY ASSURANCE

A. Plastering standards: Uniform Building Code, latest adopted Edition and ANSI A42.2 for "Portland Cement and Portland Cement Lime Plastering, Exterior (stucco) and Interior".

1.03 JOB CONDITIONS

A. Protect contiguous work from rusting, damage or soiling as a result of plastering operations.

B. Protect exterior plaster against climatic conditions as specified in ANSI Standards, and as required to prevent freezing or uneven and excessive evaporation from hot dry air.

C. Maintain minimum temperature of 55 degF in areas to be plastered for one week prior to, during, and after application.

1. Assure natural or mechanical ventilation.

2. Comply with ANSI Standards.

1.04 SUBMITTALS (SEE SECTION 01340)

A. Samples: Provide 4' x 4' finished textured sample of each color and texture specified for Architect to review and approve prior to installation of finish coat.

B. Product Data Sheets on stucco material, trim, reveals, accessories, and integral colors.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. US Gypsum Co..

2. Other manufacturers comply with Section 01640.

B. Portland Cement: ANSI/ASTM C150, Type I or IA.

C. Lime: ANSI/ASTM C206, Type S.

D. Aggregate: ANSI/ASTM C35.

E. Water: Potable.

F. Portland cement finish coat: Provide factory-prepared proprietary product containing all materials required for finish coat, except water.

1. U.S. Gypsum Co.

2. Integral Color Finish Coat:

a. Base: La Habra Stucco (La Habra Products, Inc.)

b. Colors:

1.) La Habra X-524 (Base 200)

3. Finishes (See exterior finish schedule on drawings for locations):

a. Light Dash texture applied with plaster gun.

b. Smooth finish, applied by hand troweling.

G. Bonding material: Larsen's Products Corp. Weld-Crete.

H. Metal Lath: See Section 09205.

I. Plaster Reveals and Moldings: "Fry" or "CEMCO" as indicated on drawings. Provide factory fabricated intersections.

2.02 MIXING AND PROPORTIONING

A. Use ready-mixed materials in accord with manufacturer's instructions.

B. Mix each batch of plaster in quantity which can be used before it starts to set. Discard plaster which has started to set. Do not retemper.

C. Follow ANSI standards.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine surfaces to receive plaster; check lath for completeness and soundness.

B. Correct unsatisfactory conditions.

C. Start of work constitutes acceptance of substrates and responsibility for performance.

3.02 PREPARATION

A. Clean surfaces and remove loose and deleterious substances.

3.03 INSTALLATION

A. Do not use frozen, lumpy, or contaminated materials. Use clean water.

B. Plaster flush with built-in items.

1. Where plaster is not terminated at metal by casing beads, cut basecoat free before plaster sets.

2. Groove finish coat at junctures with metal.

C. Make interior and exterior corners 3/4" finish radius.

D. Whenever permanent grounds are too far apart to serve as guides for rodding, provide plaster screeds and establish true surfaces of screeds with rod before screeds are set.

1. Keep grounds clean.

2. Finish plaster level with grounds.

E. Apply minimum plaster thicknesses as established by referenced standards.

F. Apply greater thickness if indicated.

G. Use 3-coat plaster system.

1. Apply at consistency required to achieve uniformity.

H. This Contractor shall provide and apply scratch coat to all shower locations, for setting bed application by others.

I. Apply finish coat minimum 1/8" thick.

3.04 FIELD QUALITY CONTROL

A. First coat shall be allowed to dry at least 48 hours, with 48 hours duration between first and second coat. Second coat shall be allowed to dry at least 48 hours with 7 days duration between second and finish coat. Allow another 7 days cure time before painting finish coat.

B. Plaster which is cracked or crazed will not be accepted.

C. Remove and replace unacceptable plaster, including base materials if damaged during removal of defective plaster.

3.05 REPAIR AND CLEANING

A. Cut, patch, repair and point-up plaster as required and as directed by Architect.

1. Repair cracks and indented surfaces by moistening plaster and filling with new material.

2. Re-shoot with plaster gun all adjoining surfaces, to match texture specified for finish or adjacent area finish.

3. Point-up finish plaster surfaces around items which are built into or penetrate plaster.

B. Promptly remove misplaced plaster from surfaces which are not to be plastered.

1. Repair surfaces which have been stained, marred or damaged during plastering work.

2. When plastering is completed, remove unused materials, containers and equipment.

3. Clean adjacent surfaces of plaster debris.

END OF SECTION

SECTION 09250

GYPSUM BOARD

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all gypsum board work as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 QUALITY ASSURANCE

A. Wall furring and suspended ceiling installation standards: ASTM C841.

B. Fire-resistant materials and assembly standards: Provide materials, accessories and application procedures which have been tested in accord with ASTM E119, and listed by U/L, or other approved testing laboratory, for type of construction and rating indicated, and accepted by local code authority.

C. Installer must have a minimum of 3 years experience installing drywall systems.

1.03 JOB CONDITIONS

A. Coordinate installation with work of other trades to allow time for correct installation of their work.

1.04 SUBMITTALS (SEE SECTION 01340)

A. Samples: Provide 4' x 4' finished textured sample of each texture specified for Architect to review and approve prior to installation of finish coat.

B. Product Data Sheets on gypsum board material, accessories, and texture material.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Gypsum wallboard:

a. Base: U.S. Gypsum Co., and as noted for individual items.

b. Optional manufacturers: National Gypsum Co.; Celotex Corp.; Flinkote Building Products Co.; and Georgia-Pacific, Domtar Gypsum Co.

2. Accessories: U.S. Gypsum Co., CEMCO, Clarke-Western, or Fry Reglet.

3. Other manufacturers desiring approval comply with Section 01640.

B. Gypsum wallboard: ANSI/ASTM C36. Furnish in lengths as long as practicable with tapered edges.

1. Interior Fire rated board: 5/8" thick, Type X.

2. Interior non-fire rated board: 5/8" thick.

3. Interior curved board: 1/4" or 3/8" thick.

C. Gypsum Spray Texture:

1. USG Spray texture finish - unaggregated form.

2. "Orange Peel" - light finish.

3. Smooth finish for wall covering applications.

D. Gypsum wallboard accessories: Galvanized for general use, zinc for wet areas.

1. Corner bead: Clarke-Western standard drywall corner bead.

2. Edge metal: Clarke-Western #202 drywall "L" metal.

3. Drywall Moldings: Aluminum Fry Reglet as indicated on drawings. Provide factory fabricated intersections.

4. Base Reveal metal: FRY DRMB-625-400, factory finished in black.

E. Screws:

1. For Gypsum Board to Metal Framing: ASTM C1002 Type S Bugle Head - 1/2"; 1-1/4"; and 1-3/4" long where applicable.

2. For Gypsum Board to Wood Framing: ASTM C1002 Type W Bugle Head - 1-1/4" length to penetrate framing member not less than 3/8".

F. Joint treatment compound: ANSI/ASTM C475.

G. Joint tape: Perforated type, ANSI/ASTM C475.

H. Caulking, sound: Acrylic based - see Section 07915.

I. Furring Channels: 25 gauge x 1" x 2" angles.

J. Resilient Channels: Where noted on drawings, provide USG RC-1 Channels, 25 ga. galvanized, prepunched holes 4" o.c.

PART 3 - EXECUTION

3.01 INSPECTION AND PREPARATION

A. Examine supporting structure and conditions under which wallboard is to be installed.

B. Do not proceed until unsatisfactory conditions have been corrected.

3.02 INSTALLATION - GENERAL

A. Erect in strict accordance with wall details to comply with sound attenuation requirements.

B. Erect in strict accordance with detail to comply with 1 HR. fire-rating for wall enclosure. Per GA file No. WP 8001.

C. Apply joint treatment compound in accord with manufacturer's directions.

1. Fill joints and internal corners with compound.

2. Embed tape in compound.

3. After drying, apply additional compound to joint, feather out on each side of joint until a smooth, even surface, free of defects, is obtained.

4. Install other accessories in like manner.

D. Apply joint treatment compound over heads of fasteners.

1. Allow to dry, then lightly sand.

2. Apply second layer and sand.

E. Avoid roughing paper.

F. Spray texture evenly to surfaces to provide a light "Orange Peel" finish.

G. Sand with fine sand paper to achieve final smooth surface where specified on finish schedule.

H. If wallboard is damaged or surfaces are roughened, repair, or remove and replace, to satisfaction of Architect, at no additional cost to Owner.

I. Apply drywall primer with roller to equalize drywall porosity and texture.

J. After painter has applied primer to wallboard surfaces, repair and refinish any areas which show defects.

END OF SECTION

SECTION 09310

CERAMIC TILE

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all ceramic tile, marble, granite, and exterior pavers as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 QUALITY STANDARDS

A. Tile grading and certification: ANSI A137.1-1995.

B. Tile installation standards:

1. Tile Council of America/Ceramic Tile Institute Handbook for Ceramic Tile Installation, latest edition.

2. American National Standards Institute Specifications for the Installation of Ceramic Tile, as indicated.

C. Marble strength: ASTM C99 and ASTM C170.

D. Marble abrasion resistance: ASTM C241.

E. Granite: ANSI/ASTM C615.

F. Marble: ANSI/ASTM C503.

G. Marble and stone installation in accordance with latest edition of UBC and details and guidelines of Masonry Institute of America Publication "Marble and Stone Slab Veneer."

1.03 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. (3) 4" x 4" tile samples and grout colors.

2. (3) 12" x 12" samples of each marble and granite specified.

1.04 PRODUCT DELIVER, STORAGE AND HANDLING

A. Deliver materials and store on site in original containers with seals unbroken and grade labels intact until use.

B. Provide grade identification on each container.

1.05 JOB CONDITIONS

A. Maintain temperature at minimum 50 degF during tile work and for a minimum of 7 days after completion.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Adhesives, mortars, grouts and leveling compounds (except combination waterproofing and adhesive):

a. Base: Custom Building Products.

B. Grout: Polymer – Modified Portland Cement Grout.

1. Custom Building Products Polyblend Sanded Tile Grout; ANSI A118.6, for joints 1/8" – ½" wide.

2. Mix in accord with manufacturer's instructions.

3. Colors as noted on the drawings.

C. Cementitious Tile Adhesive: ANSI A118.4 – Polymer-Enhanced Mortar.

1. Custom Building Products Versabond Flex Fortified Thin-Set Mortar.

D. Mortar Bed Installations: Where indicated on the drawings for mortar bed as the substrate for tile work – conform to ANSI A108.1.

1. Custom Building Products Custom Float Bedding Mortar mixed with ½ water and ½ Thin – Set Mortar Admix.

E. Leveling compound: As required; use only where necessary to obtain satisfactory installation.

F. Elastomeric Joint Sealant: ANSI A108.01.3.7, where indicated on the drawings.

1. All joints between floors and walls and at joints between tile and dissimilar materials.

2.02 SCHEDULE OF CERAMIC TILE, MARBLE AND GRANITE

A. Ceramic Tile Schedule:

1. See drawings for locations of specific sizes and colors.

B. Marble/Granite Schedule:

1. See drawings for locations of specific sizes and colors.

2. Includes thresholds on interior spaces.

2.03 EXTRA MATERIAL

A. Extra tile and pavers: Upon completion of work, deliver extra tile and pavers of same size, pattern and color as used on job to Owner for use in repair and maintenance work.

1. Furnish tile and pavers in original boxes, properly marked:

2. Provide 12 sf. of each type and color.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine substrates and conditions under which tile is to be installed.

B. Correct unsatisfactory conditions.

3.02 INSTALLATION - (FOR SETTING BED AND THIN SET)

A. Provide setting beds as required for floor and wall installations. See drawings for locations and details.

B. Install tile and pavers in accordance with Tile Council of America Details:

1. Floors (Interior):

a. Concrete: Detail F 111-99 for cement mortar method. Include cleavage membrane.

b. Concrete: Detail F 113-99 for dry-set mortar method. Include bond coat.

2. Walls (Interior):

a. Metal Stud Framing: Detail W 231-99 with bond coat; reinforced mortar bed (min. 1" thick) over waterproof membrane, on frame partition.

3.03 INSTALLATION - GENERAL

A. Setting:

1. Place tiles and pavers in patterns shown on drawings.

2. Align tile joints on adjoining walls, where applicable.

3. Lay out and center tile fields in both directions in each space or on each wall area.

4. Avoid use of tile and pavers less than 1/2 size.

5. Adjust tile and pavers to minimize cutting.

6. Provide uniform joint widths.

B. Maintain nominal 1/4" wide joint at perimeter of tile and paver floor areas and caulk with sealant.

C. Extend combination waterproofing membrane up walls and over curbs.

D. Perform water test without leakage for 12 hours prior to installing tile.

3.05 PROTECTION

A. Protect installed tile and paver work with Kraft paper or other non staining covering during construction to prevent damage.

END OF SECTION

SECTION 09510

ACOUSTICAL CEILINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all acoustical materials as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Ceiling suspension system: Section 09120.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Provide (2) 12" x 12" samples of each tile material type.

B. Provide product data for each material type.

1.03 JOB CONDITIONS

A. Carefully coordinate ceiling layout with other work that penetrates acoustical ceiling systems.

PART 2 - PRODUCTS

2.01 SCHEDULE OF ACOUSTICAL MATERIALS

A. Mineral fiber –

1. Ceiling Type #1: 1-HR rated suspended acoustical tile ceiling. Armstrong "Cortega" second look II, #2758, with Armstrong "Prelude XL" 13/16" heavy duty exposed tee system #8301. White colors.

2.02 ACOUSTICAL MATERIALS

A. Acceptable manufacturers:

1. Acoustical materials: As indicated for individual products.

2. Other manufacturers desiring approval comply with Section 01640.

B. Ceiling tile, mineral fiber:

1. Factory applied washable vinyl latex paint finish.
2. Noise reduction coefficient: 0.55
3. Class A incombustible units.
4. Edges uniformly fabricated, true, square and undamaged.
5. Sizes as required to fit suspension system and as indicated.
6. Light reflectance: .80
7. Tegular style:
   a. 5/8" thick, minimum.

2.03 EXTRA MATERIAL

A. Provide Owner with one carton of type and pattern of material for maintenance purposes. Provide in sealed labeled box to facilitate identification.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine suspension system for suitability to receive acoustic materials.

B. Installation constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Install into suspension system in accord with manufacturer's instructions.

B. Perform field cutting as required to fit materials to grid. Make all cuts square and true.

3.03 CLEANING

A. Perform cleaning and replacement of defective units in time to avoid delay in progress of work and before final acceptance of work.

B. Carefully clean all soiled surfaces. Remove and replace all irregular, discolored, defective or damaged components at no additional expense to Owner.

END OF SECTION

SECTION 09655

RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all resilient sheet flooring as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 QUALITY ASSURANCE

A. American Society for Testing and Materials (ASTM):

1. ASTM D638M-91 Standard Test Method for Tensile Properties of Plastics.

2. ASTM E648-88 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source.

3. ASTM E662-83 Test Method for Specific Density of Smoke Generated by Solid Materials.

4. ASTM F510-81 (1987) Standard Test Method for Resistance to Abrasion of Resilient Floor Coverings Using an Abrader with a Grit Feed Method.

5. ASTM F1303-90 Specification for Sheet Vinyl Floor Covering.

6. ASTM F710-86 Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring.

B. National Fire Protection Association (NFPA):

1. NFPA 253-1984 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source.

2. NFPA 258-1989 Test Method for Specific Density of Smoke Generated by Solid Materials.

C. Applicator must be approved in writing by materials manufacturer.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. Samples of colors selected by Architect.

B. Project data:

1. Certification of applicator qualifications.
2. Letter that extra material has been delivered to Owner.
3. Guarantee

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Store in heated space at minimum 70°F for 72 hours before use.

1.05 JOB CONDITIONS

A. Maintain temperature in spaces to receive flooring at minimum 70°F for 72 hours prior to, during, and 72 hours after installation.

B. Remove any compounds applied to concrete, that might retard satisfactory drying, in time to prevent delay. If artificial heating or cooling is required, furnish it.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Sheet vinyl and linoleum manufacturers:
   a. Base: Forbo Industries.
2. Other manufacturers desiring approval comply with Section 01640.

B. Resilient sheet flooring (vinyl:) Solid polyvinyl chloride sheet floor covering, 0.080" minimum thickness.

1. SMARAGD Classic Series (colors to be selected).
   a. Heat weldable, homogeneous, non-directional thru-chip design/color.

b. Static load limit: 700 lb./in.^{2}

c. Polyurethane factory finish.

d. Flammability - ASTM E648 Class 1.

e. Smoke density - less than 450 (ASTM E662).

C. Linoleum sheet flooring: solid linoleum sheet flooring material .080" min. thickness.

1. Marmoleum "Real" and "Fresco".

a. Homogenous sheet linoleum of primarily natural materials consisting of linseed oil, wood flour, and rosin binders, mixed and calendered onto natural jute backing. Pattern and color to extend throughout thickness of material.

b.	Width:	79"
c.	Length:	105'
d.	Gauge:	.080"
e.	Backing:	Jute
f.	Pattern and color:	Per Architect from manufacturer's standard patterns and color chart.
g.	Adhesive:	L910 Adhesive
h.	Heat welding rod:	Marmoweld color matching welding rod.

D. Base: Self cove type base of same vinyl material.

E. Leveling compound: As recommended by flooring manufacturer.

F. Transition strips: 1" wide tapered to meet abutting materials. Color to match sheet flooring.

2.02 EXTRA MATERIAL

A. Furnish Owner with 100 sf. of each color and type for maintenance.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine substrate and conditions under which flooring is to be installed.

B. Do not proceed with installation until unsatisfactory conditions have been corrected.

C. Installation indicated acceptance of substrates and responsibility for performance.

3.02 PREPARATION

A. Assure that substrate is dry, clean and level prior to installation.

B. Test concrete substrate as recommended by manufacturer to determine moisture content. Do no begin installation until moisture content is acceptable to manufacturer. Heat or cool spaces if required to avoid delay.

C. Remove foreign matter that would prevent adhesion. Remove curling compounds.

D. Sand all concrete substrates smooth.

E. Remove depressions and level uneven surfaces with leveling compound.

F. Rinse subfloor and allow to dry thoroughly before applying adhesive.

3.03 INSTALLATION

A. Install flooring and base as scheduled for rooms, and under and behind equipment.

B. Install material in accord with manufacturer's instructions.

1. Install in maximum possible sizes.
2. Apply adhesive to substrate per manufacturer's recommendations.
3. Provide transition strips as required where flooring abuts other flooring materials.
4. Install in adhesive with accurate, tight seams.
5. Reverse alternate sheets.

C. All sheets in one room or area to be from same production run. Mismatched materials will be rejected.

D. Install non-slip flooring in areas where indicated. Weld to adjacent vinyl sheet flooring.

E. Weld seams using vinyl welding rod. Remove excess rod with sharp knife and buff to match adjacent surfaces.

F. Continue material to provide for self-covered base.

3.04 CLEAN

A. When final building cleanup is being accomplished, clean flooring by mopping with detergent and water. Rinse with clean water. Buff floor and base.

B. Remove damaged flooring and replace with new flooring at no additional expense to Owner.

END OF SECTION

SECTION 09688

CARPET

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all carpet tile work as indicated in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 QUALITY ASSURANCE

A. Tests for smoke developed: NFPA 258-76.

B. Test for static rating: AATCC 134-1975.

C. Test for critical flux: ASTM E648, Flooring Radiant Panel Test (NBS).

D. Pill Test: DOC FF-1-70.

E. Installer qualifications: Trained, skilled mechanics supervised by experienced superintendent.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. For color selection.

B. Product data:

1. Manufacturer's technical data and installation instructions.
2. Guarantee: See Section 01750.

C. Submittals of samples and product information for approval – submit to Architect.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver with mill register numbers attached.

B. Tag and mark accessory items for identification.

1.05 JOB CONDITIONS

A. Install after all other finishing operations in area are complete.

1.06 GUARANTEE

A. Guarantee that entire carpet installation complies with specifications and that damaged or defective carpet or carpet stained by adhesives will be removed and replaced. Guarantee that carpet will not show excessive wear for a period of 5 years from date of acceptance. Excessive wear is defined as wearing away of face yarns which reduces pile height by more than 10 percent in any area or pulling out of nap.

B. Guarantee entire cost of replacement, including removal and disposal of defective carpet.

C. Written guarantee to be jointly signed by Contractor, installer and manufacturer.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Carpet:

a. Base: Bentley Carpet Mills.

B. Carpet: First quality, no seconds or imperfects.

1. Comply with applicable state and local codes.

2. Smoke developed (NFPA 258-76): 450, max.

3. Static rating: 3KV, max.

4. ASTM E84 smoke developed: 450, max.

5. Minimum critical flux: 0.45 watts per square centimeter.

C. Carpet edging: Carpet Transition Reducer No. 101 of thickness to match carpet.

1. Mercer

2. Color as selected by Architect from standard color chart.

D. Adhesive: Non-staining, non-bleeding strippable type as recommended by carpet manufacturer.

2.02 CARPET

A. Construction:

1. Style: Danbury and Covington Series

2. Type: Tufted

3. Texture: Textured loop

4. Tufts/sq. in.: 90

5. Pile height: 0.185" and .095"

6. Yarn weight: 26 oz./sq. yd.

7. Face yarn: 100% Badische Zeftron 500 ZX nylon

   a. Dyeing: Solution

   b. Dye lots: One

8. Backing: GlasBac vinyl 127 oz./sq. yd.

9. Total weight: 153 oz./ sq. yd.

10. Total thickness: 0.270"

11. Color: See Finish Schedule and Finish Flooring Plan

2.03 EXTRA MATERIAL

A. Furnish Owner with minimum of 1% additional material of each type, pattern and color for maintenance purposes.

PART 3 – EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Verify that concrete is sealed.

C. Check moisture content of substrate by sealing an inverted glass tumbler to floor with putty for 24 hours.

1. If moisture condenses inside glass, moisture content is too high.

2. Delay installation until moisture is within acceptable limits.

3.02 PREPARATION

A. Thoroughly clean all areas to receive carpet.

B. Fill all cracks, joints, holes or uneven areas with non-crumbling latex base floor filler.

C. Before commencing work, test an area with glue and carpet to determine "open-time" and bond.

3.03 INSTALLATION

A. Install in accord with manufacturer's instructions.

B. Cut as required, making sure that pile-lay runs in same direction.

C. Apply adhesive along edges where carpet butts to a wall, where carpet terminates, or to any cut edges.

D. Apply adhesives as recommended by manufacturer.

E. Brush or roll looseness and air bubbles out.

F. Place carpet within allowable open time of adhesive.

G. Do not mix dye lots in same area.

H. Place carpet with tight butted joints.

I. Keep joint lines straight.

J. Where carpet terminates at non-carpeted floor surface, install reducer strip. Install with contact adhesive.

3.04 CLEAN

A. Remove any spillage of glue or adhesive from face or seam using remover provided by manufacturer.

B. Clean all spots; remove all loose threads.

C. Completely and thoroughly vacuum.

D. Advise maintenance personnel regarding care and maintenance.

END OF SECTION

SECTION 09900

PAINTING

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all painting as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Portland Cement Plaster – Section 09220.

2. Gypsum Board – Section 09250.

2. Painting mechanical and electrical equipment: Section 09940.

C. Definitions:

1. "Paint" and "painting" refer to all applied coatings.

2. Finished room or space: One that has finish called out on Room Finish Schedule.

D. Work Included:

1. Paint all exterior surfaces and all surfaces in finished rooms or spaces, unless noted not to be painted, to be painted under other sections, or items are already "factory" painted and installed.

1.02 QUALITY ASSURANCE

A. Standard of workmanship: Before proceeding, finish the following items with the specified materials for approval as standard of quality for completed work:

1. One room in each basic color scheme.

2. One area or item of each color.

1.03 SUBMITTALS (SEE SECTION 01340)

A. Product data:

1. Manufacturer's data showing conformance to specifications, for all products.

B. MSDS Sheets.

C. Samples:
1. (2) 12" x 12" samples each of manufacturer's paint and colors specified.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver in original containers, labeled as follows:

1. Name or type number of material.

2. Manufacturer's name and stock number.

3. Contents by volume, of major constituents.

4. Application instructions.

B. Protect from freezing or damage.

C. Store materials in place designated by Owner or Architect. Keep storage neat and clean. Repair damage thereto or to surroundings. Remove rags and waste from building daily. Avoid danger of fire.

1.05 JOB CONDITIONS

A. Perform no work unless temperature in building is maintained at constant 65 degF or above. Assure that adequate ventilation exists for escape of moisture.

B Do not apply paints and coatings in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than five (5) degrees F above the dew point; or to damp or wet surfaces.

C. Avoid wide temperature variations.

D. Maintain a rough schedule showing when painter expects to complete respective coats of paint for various areas. Keep schedule current as job progress dictates.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Contractor will, in most cases, find it necessary to provide products produced by several different manufacturers. Contractor may propose products for use, which are produced by an acceptable manufacturer when he believes the proposed product is comparable to product listed in specification. Architect must agree that proposed product is comparable before it can be used. If Architect does not agree that proposed product is comparable then Contractor will provide product listed in specifications.

2. Paints:

   a. Base: ICI Dulux / Glidden Professional.

   b. Optional: Pratt and Lambert, Dunn-Edwards, Benjamin Moore, Frazee, Devoe Paint, Sherwin-Williams Co.

3. Stains:

   a. Base: ICI Dulux / Flood.

   b. Optional: Pratt & Lambert; Samuel Cabot Inc.; Benjamin Moore; Glidden; Olympic Stain; Behr.

5. Structural steel paint (primed in 05120):

   a. Base: Tnemec.

   b. Optional: Devoe Coatings.

6. Other manufacturers desiring approval comply with Section 01640.

B. Paints and stains: As specified in paragraphs "Paint Systems - Exterior" and "Paint Systems - Interior".

1. Use best quality by acceptable manufacturers.

2. Paints shall comply with the following maximum VOC Limits:

   a. Architectural Flat Paints – 50 g/l (SCAQMD / Green Seal GS-11)

b. Architectural Non-Flat Paints – 50 g/l (SCAQMD 7/1/07)

c. Primers, Sealers, Undercoaters – 100 g/l (SCQAMD 7/1/06)

d. Anti-Corrosive and Anti-Rust Coatings – 100 g/l (SCAQMD 7/1/06)

e. Specialty Primers (Anti-Corrosive) – 100 g/l (SCAQMD 7/1/07)

f. Clear Wood Finishes – Varnish – 275 g/l (SCAQMD Rule 1113)

g. Clear Wood Finishes – Lacquer – 275 g/l (SCAQMD Rule 1113)

h. Floor Coatings – 50 g/l (SCAQMD Rule 1113)

i. Sealers – Waterproofing Sealers – 100 g/l (SCAQMD Rule 1113)

j. Sealers – Sanding Sealers – 275 g/l (SCAQMD Rule 1113)

k. Sealers – All Other Sealers – 100 g/l (SCAQMD Rule 1113)

l. Shellac – Clear – 730 g/l (SCAQMD Rule 1113)

m. Shellac – Pigmented – 550 g/l (SCAQMD Rule 1113)

n. Stains – 100 g/l (SCAQMD Rule 1113)

3. Unspecified products: Use best quality by reputable, recognized manufacturers.

4. Colors: As noted in Architect's color schedule.

   a. Architect reserves the right to select accent colors from entire range of manufacturer's colors, including "deep" colors.

   b. Architect reserves the right to require that one wall in a room or space may be painted a contrasting accent color, except in closets, electrical closets, and storage rooms.

5. Following is a listing of surfaces and type of paint to be applied to each.

6. All "low sheen" finish coats shall have a gloss rating of 10 to 15 at 60 deg. angle per ASTM D3134. Add flatteners if necessary to achieve specified gloss.

2.02 INTERIOR PAINT SYSTEMS

A. Drywall (Gypsum Board):

a. "Dry Areas" - Acrylic Latex Low Odor: ZERO VOC SYTEM

1) 1 coat LM9116 PREP & PRIME Odor-Less Primer-Sealer

2) 2 coats 9300 LIFEMASTER **Eggshell** Interior Enamel

b. "Wet Areas" - Water-Based High Performance Coatings, Eggshell or Semi-Gloss

1) 1 coat 3210 PREP & PRIME GRIPPER Multi-Purpose Primer

2) 2 coats 4212HP Devflex - WB Eggshell Acrylic Enamel, or 4216HPDevflex - WB Semi-Gloss Acrylic Enamel

B. Plaster

a. Acrylic Latex Low Odor: ZERO VOC SYTEM

1) 1 coat LM9116 PREP & PRIME Odor-Less Primer-Sealer

2) 2 coats 9300 DULUX LIFEMASTER **Eggshell** Interior Enamel

C. Wood (painted) - doors

a. Acrylic Latex Low Odor: ZERO VOC SYTEM

1) 1 coat LM9116 PREP & PRIME Odor-Less Primer-Sealer

2) 2 coats 9300 DULUX LIFEMASTER **Eggshell** Interior Enamel

D. Metal (Light trims, air distribution trims, exposed structural members)

a. Acrylic High Performance:

1) 1 coat 4020 DEVFLEX Direct to Metal Primer & Flat Finish

2) 2 coats 4212HP Devflex - WB Eggshell Acrylic Enamel

2.03 EXTERIOR PAINT SYSTEMS

A. Plaster (spray applied)

a. 2 coats 2200V DULUX PROFESSIONAL Exterior 100% Acrylic **Flat** Finish – over integral color.

B. Wood (painted)

a. Satin 100% Acrylic Latex:

1) 1 coat 6001 PREP & PRIME Hydrosealer Waterborne Multi Purpose Primer Sealer

2) 2 coats 2402V Dulux Professional Exterior 100% Acrylic Satin Finish

C. Metal

a. Acrylic High Performance:

1) 1 coat 4020 DEVFLEX Direct to Metal Primer & Flat Finish

2) 2 coats 4212HP Devflex - WB Eggshell Acrylic Enamel, or 4216HP Devflex – WB Semi-Gloss Acrylic Enamel

D. Bonderized and Jetcoat/Galvannealed sheetmetal (back-prime all sheetmetal with one coat primer undercoat prior to installation)

a. Acrylic High Performance:

1) 1 coat 4020 DEVFLEX Direct to Metal Primer & Flat Finish

2) 2 coats 4212HP Devflex - WB Eggshell Acrylic Enamel, or 4216HPDevflex – WB Semi-Gloss Acrylic Enamel

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine surfaces carefully for defects which cannot be corrected and might prevent satisfactory results.

B. Commencing of work in a specific area constitutes acceptance of surfaces, and responsibility for satisfactory work.

3.02 PREPARATION - GENERAL

A. Assure that surfaces are clean and dry.

B. Assure that surfaces are free of foreign material which will affect adhesion or appearance.

C. Remove mildew and neutralize surface.

D. Eliminate efflorescence before painting.

E. Before painting, test surfaces with moisture meter.

F. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

3.03 PREPARATION - WOOD

A. Sandpaper smooth, then clean surfaces of all dust.

B. After priming coat has dried, seal all knots, pitch and resinous sapwood. Putty all nail holes and minor defects, to match wood color.

C. Wood - Pressed Board, Hard Board, Particle Board, PVC Composition Trim Board: Prime entire surface and all edges with the primer specified. Caulk with a latex-type caulk after priming.

3.04 PREPARATION - FERROUS METAL SURFACES AND HOLLOW METAL

A. Follow requirements of SSPC-SP 1-63 and 3-63.

B. Wire brush, or grind as necessary to remove shoulders at edge of sound paint to prevent telegraphing. Best results are obtained over a surface sandblasted to at

least a Commercial Blast (SSPC-SP6). Performance over hand or power tool cleaned surfaces is dependent on the degree of cleaning.

C. Touch up damaged shop coats. For surfaces with touched up shop coat, omit first coat.

3.05 PREPARATION - GALVANIZED METAL SURFACES AND NON-ANODIZED ALUMINUM

A. Solvent clean per SSPC-SP1 or clean with TSP or other appropriate cleaner followed by thorough water rinsing. If the surface has been treated with chromates or silicates, first clean by the method chosen and apply a test patch of the coating system specified. Allow product(s) to cure at least one week before testing adhesion per ASTM D3359 (tape Adhesion). Brush blast prior to painting if adhesion is poor. Passivate.

3.06 APPLICATION - INTERIOR

A. Back-prime all wood trim, with penetrating sealer.

B. Finish door edges same as faces of doors.

C. Paint all surfaces behind A/C grilles flat black, unless otherwise indicated.

3.07 APPLICATION – EXTERIOR JETCOAT/GALVANNEALED SHEETMETAL

A. Back-prime all sheetmetal prior to installation with primer undercoat.

B. Prime coat all cut edges and seams.

3.08 PROTECTION AND CLEANUP

A. Protect adjacent work against damage by painting and finishing work. Clean, repair or replace, and repaint damaged work as directed by Architect.

B. Provide "Wet Paint" signs.

C. Remove temporary protective wrappings, provided by others for protection of their work, after completion of painting operation. Clean all paint spattered surfaces. Use care not to damage finished surfaces.

D. Remove any surplus materials, scaffolding and debris. Leave areas broom clean.

END OF SECTION

SECTION 09940

PAINTING MECHANICAL AND ELECTRICAL WORK

PART 1- GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all painting of mechanical and electrical work as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Identification of mechanical and electrical work: See Divisions 15 and 16.

C. Definitions:

1. "Paint" and "painting" refer to all applied coatings.

2. Finished room or space: One that has finish called for on Room Finish Schedule.

3. Mechanical work (and equipment): All work included in Division 15.

4. Electrical work (and equipment): All work included in Division 16.

D. Work included: Paint All:

1. Mechanical access panels exposed in habitable rooms, closets or corridors.

2. Electrical panel covers exposed in habitable rooms, closets or corridors. (Do not paint panels located in Electrical or Mechanical Rooms.)

3. Exposed ductwork, piping, conduit, raceways, busways.

4. All mechanical air diffusers, electrical light trims, and smoke detectors.

E. Do not paint:

1. Anodized aluminum, chromium plated metal, stainless steel face plates, glass, light switch and receptacle plates.

2. Moving parts of operating units.

3. Code labels, equipment, identification and rating plates.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Product data:

1. Manufacturer's data showing conformance to specifications, for all products.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver in original containers, labeled as follows:

1. Name or type number of material.

2. Manufacturer's name and stock number.

3. Contents by volume, of major constituents.

4. Application instructions.

B. Protect from freezing or damage.

C. Store materials in place designated by Owner or Architect. Keep storage neat and clean. Repair damage thereto or to surroundings. Remove rags and waste from building daily. Avoid danger of fire.

1.04 JOB CONDITIONS

A. Perform no work unless temperature in building is maintained at constant 65 degF or above. Assure that adequate ventilation exists for escape of moisture.

B. Avoid wide temperature variations.

C. Maintaining a rough schedule showing when painter expects to complete respective coats of paint for various areas. Keep schedule current as job progress dictates.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Paints:

a. Base: Pratt and Lambert

b. Optional: ICI, Dulux, Dunn-Edwards, Benjamin Moore, Pratt and Lambert, Frazee, Glidden; Sherwin-Williams Co.

2. Other manufacturers desiring approval comply with Section 01640.

B. Paints: As specified in paragraphs "Paint Systems - Exterior" and Paint Systems - Interior".

1. Use best quality by approved manufacturers.

2. Paints shall comply with the following maximum VOC Limits:

a. Architectural Flat Paints – 50 g/l (Green Seal GS-11)

b. Architectural Non-Flat Paints (Primers) – 150 g/l (Green Seal GS-11)

c. Anti-Corrosive and Anti-Rust Coatings – 250 g/l (Green Seal GS-11)

d. Clear Wood Finishes – Varnish – 350 g/l (SCAQMD Rule 1113)

e. Clear Wood Finishes – Lacquer – 550 g/l (SCAQMD Rule 1113)

f. Floor Coatings – 100 g/l (SCAQMD Rule 1113)

g. Sealers – Waterproofing Sealers – 250 g/l (SCAQMD Rule 1113)

h. Sealers – Sanding Sealers – 250 g/l (SCAQMD Rule 1113)

i. Sealers – All Other Sealers – 250 g/l (SCAQMD Rule 1113)

j. Shellac – Clear – 730 g/l (SCAQMD Rule 1113)

k. Shellac – Pigmented – 730 g/l (SCAQMD Rule 1113)

l. Stains – 250 g/l (SCAQMD Rule 1113)

C. Unspecified products: Use best quality by reputable recognized manufacturers.

D. Colors:

1. Mechanical/Plumbing: Piping and ducting as noted on mechanical and plumbing plans. Confirm colors with Architect prior to painting any items.

2. Electrical: Trim and covers to match adjacent wall/ceiling colors.

3. Mechanical Grills and Registers: Painted to match adjacent wall or ceiling colors.

2.02 PAINT SYSTEMS - GENERAL

A. Following is a listing of surface and type of paint to be applied to each.

B. All "low sheen" finish coats shall have a gloss rating of 10 to 15 at 60 degree angle per ASTM D3134. Submit gloss samples for approval prior to use. Add flateners if necessary to achieve specified gloss.

2.03 INTERIOR AND EXTERIOR SYSTEMS

A. Pipe and duct insulation
1 coat Latex Metal Primer
1 coat Enamel Undercoater
All other finishes: Same as in Section 09900.

PART 3 – EXECUTION

3.01 INSPECTION

A. Examine surfaces carefully for defects which cannot be corrected and might prevent satisfactory results.

B. Commencing of work in specific area constitutes acceptance of surfaces, and responsibility for satisfactory work.

3.02 PREPARATION - GENERAL

A. Assure that surfaces are clean and dry.

B. Assure that surfaces are free of foreign materials which will affect adhesion or appearance.

C. Remove mildew and neutralize surface.

D. Eliminate efflorescence before painting.

E. Before painting, test surfaces with moisture meter. Do not paint until moisture is within paint manufacturer's acceptable limits.

3.03 APPLICATION - GENERAL

A. Paint surfaces as specified in Paragraphs "Paint Systems".

B. Provide complete coverage and hide.

1. All paint systems are "to cover".

2. When color or undercoats show through, apply additional coats until paint film is of uniform finish and color, at no additional cost.

C. Employ only skilled mechanics.

D. Mix and apply as recommended by manufacturer.

E. If Architect so directs, do not apply succeeding coats until he has an opportunity to observe previous coat.

F. Remove and protect hardware, accessories, plates, fixtures, finished work, and similar items; or provide ample in-place protection. Upon completion of painting, carefully replace all removed items and/or remove protection.

G. Apply all materials under adequate illumination. Evenly spread and smoothly flow on for full, smooth, cover.

H. Assure that coats are dry before recoating.

I. Touch up abraded areas of shop prime coats before subsequent coats are applied.

J. Paint all surfaces behind A/C grilles flat black, unless otherwise indicated.

3.04 APPLICATION - EXTERIOR

A. Do not paint when surface temperature is below 50 degF, while surface is damp, or during cold, rainy or frosty weather.

B. Avoid painting surfaces exposed to hot sun.

3.05 PROTECTION AND CLEANUP

A. Protect adjacent work against damage by painting and finishing work. Clean, repair or replace, and repaint damaged work as directed by Architect.

B. Provide Wet Paint signs.

C. Remove temporary protective wrappings, provided by others for protection of their work, after completion of painting operations. Clean all paint spattered surfaces. Use care not to damage finished surfaces.

D. Remove any surplus materials, scaffolding and debris. Leave areas broom clean.

END OF SECTION

DIVISION 10
SPECIALTIES

SECTION 10160

METAL TOILET COMPARTMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all metal toilet partitions as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. Full range of colors for selection.

B. Data:

1. Provide complete technical and installation data.

C. Shop Drawings:

1. Provide complete shop drawings of each partition and door type.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver anchorage items in time to allow installation.

1.04 JOB CONDITIONS

A. Verify dimensions by field measurements before fabrication, wherever possible without delaying project.

PART 2 - PRODUCTS

2.01 MATERIALS - GENERAL

A. Acceptable manufacturers:

1. Toilet partitions:

a. Base: Bobrick; Metpar; Sanymetal Products Co., Inc.; Global Steel Products Co.; Accurate Partitions Div., United States Gypsum Co.; and American Sanitary Partition Corp.

2. Other manufacturers desiring approval comply with Section 00440.

B. Toilet partitions: Formed metal type, floor supported-floor braced, complete with all accessories. Provide barrier-free access as noted on plans.

C. Toilet partition panels, pilasters and doors: Steel sheet formed over core material.

1. Steel sheet ASTM A568.

a. ASTM A164 Type RS galvanizing on each face.

b. Prepare for painting in accord with ASTM D2092, method A (zinc phosphate).

c. Provide materials selected for their surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discoloration, or other surface imperfections on finished units are not acceptable.

d. Provide steel sheets of following minimum thicknesses:

Toilet compartment doors:	22 ga.
Compartment door moldings:	20 ga.
Compartments partitions and moldings:	20 ga.
Urinal partitions and moldings:	20 ga.
Concealed reinforcing for anchors:	12 ga.
Pilasters	16 ga.
Pilaster interlocking moldings	18 ga.

2. Panel core material: Vermin and moisture resistant, sound-deadened, double faced honeycomb, impregnated Kraft paper.

D. Handicapped stalls: (Refer to drawings).

E. Doors: 1" thick.

1. For 32" or wider stalls

2. For stalls less than 32" wide/ 24" wide, min.

F. Pilasters, floor-braced: Minimum 1-1/4" thick.

1. Galvanizing steel anchorage devices.

2. Complete with threaded rods, lock washers, leveling adjustment nuts and shoes.

G. Pilaster shoes: AISI Type 302/304 stainless steel, 20 ga., 3" high.

H. Stirrup brackets: Manufacturer's heavy duty design for attaching panels to walls and pilasters, of chromium plated brass or Type 302 stainless steel.

I. Latch and strike-keeper: Chromium-plated brass or stainless steel slide latch, concealed in door or surface mounted. Wrap-around type strike-keeper designed to properly receive and hold latch.

J. Bumper-coat hook: Rubber tipped combination bumper and coat hook for each compartment.

K. Paper holders: As specified in Section 10800.

L. Anchorages and fasteners:

1. Exposed fasteners: Manufacturer's standard stainless steel or brass, finish to match hardware.

2. Concealed anchors: Galvanized steel, hot-dip coated after fabrication complying with ASTM A385.

2.02 FABRICATION

A. Preassemble units in shop to greatest extent possible to minimize any field cutting and assembly of units.

B. Fabricate system in accord with manufacturer's specifications.

C. Pressure laminate face sheets to core material.

1. Seal all edges with continuous locking strip.

2. Miter, weld and grind smooth all corners, or cap with manufacturer's standard stainless steel edge and corner fittings.

D. Provide concealed reinforcement for installation of hardware, fittings, brackets, and required accessories.

E. Reinforce for attachment of grab bars, as required.

F. Finishing:

1. After fabrication, clean steel surfaces to remove processing compounds and other contaminants.

2. Pretreat with a phosphate coating.

3. Apply baked-on rust-inhibiting primer.

4. Apply two finish coats of thermosetting acrylic enamel, applied and baked in accord with paint manufacturer's instructions to provide minimum 1.5 mil dry film thickness.

5. Colors as selected from manufacturer's full color range, by Architect.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Correct unsatisfactory constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Install in a rigid, straight, plumb and level manner, with lay out as indicated.

B. Clearances:

1. Between pilasters and panels: 1/2", max.

2. Between panels and walls: 1", max.

C. Secure to walls with minimum of two stirrup brackets near top and bottom of panel.

1. Locate brackets so holes occur in masonry or tile joints.

2. Use manufacturer's recommended anchoring devices, as indicated on shop drawings.

D. Floor-supported partitions: Secure pilasters to floor with specified anchorage devices.

1. Level, plumb and tighten.

2. Set tops of closed doors level with tops of pilasters.

3. Set anchors with minimum 2" penetration into floor.

3.03 ADJUST AND CLEAN

A. Adjust and lubricate hardware for proper operation after installation.

1. Set hinges on in-swing doors to hold unlatched doors open approximately 30 degrees.

2. Set hinges on out-swing doors to return to fully closed position.

B. Protect until time of acceptance by Owner.

C. Replace damaged work as directed.

D. Perform final adjustments just prior to final inspection.

E. Clean exposed surfaces, hardware, fittings and accessories and touch up minor scratches and other imperfections using materials and methods recommended by manufacturer.

END OF SECTION

SECTION 10350

FLAGPOLE

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for flagpole, as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver in time to allow installation.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Flagpole:

a. American Flagpole, Division of Kearney-National, Inc., Abingdon, VA, telephone (800) 368-7171, Fax (703) 676-3090.

2. Other manufacturers desiring approval comply with Section 01640.

B. Furnish and erect where indicated on plans, American Flagpole number 92808 complete with standard features listed below. Flagpole shall be fitted with a cam cleat for internal halyard operation, have an exposed height above ground of 30 feet, total length of 33 feet, butt diameter of 6 inches, top diameter of 3-1/2 inches, and but wall thickness of 0.188 inches. Provide standard flagpole fittings and equipment as manufactured by American Flagpole.

1. Material: Alloy 6063-T6 aluminum tubing with uniform conical taper.

2. Finish: Directional satin ground.

3. Finial: Clear anodized aluminum ball with flush seam.

4. Truck: Cast aluminum single stationary truck.

5 Halyard: #10 (5/16" diameter) braided polypropylene, with two (2) chrome plated bronze swivel snaphooks, plastic covered counter weight and beaded sling.

6. Cam Cleat: Manually operated cam cleat includes a flush access door with cylinder lock and continuous piano hinge.

7. Collar: Spun aluminum flash collar finished to match pole.

8. Foundation Sleeve: Fabricated from 16 gauge galvanized corrugated steel tube with 3/16" thick steel base and support plate, steel centering wedges and lighting spike.

PART 3 - EXECUTION

3.01 INSTALLATION

Install flagpole, fittings and equipment complete with necessary hardware, anchors and supports in accordance with manufacturers instructions and as specified.

Upon completion of installation, including work by other trades, test and adjust flagpole to operate easily and free.

3.02 CLEAN-UP

END OF SECTION

SECTION 10441

SIGNS

PART 1: GENERAL

1.01 SECTION INCLUDES

A. Signs on the exterior and interior of the building.

1.02 RELATED SECTIONS

A. Section 06200 - Finish Carpentry.

1.03 SUBMITTALS

A. Submit shop drawings under provisions of Division 1.

B. Submit shop drawings listing sign styles, lettering and locations, and overall dimensions of each engraved sign.

C. Submit samples under provisions of Division1.

D. Submit two samples illustrating full size sample sign, of type, style and color specified including method of attachment.

E. Submit manufacturer's installation instructions under provisions of Division 1.

F. Include installation template and fastening hardware where applicable.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site under provisions of Division 1.

B. Store and protect products under provisions of Division1.

C. Package signs, labeled in name groups.

D. Store adhesive tape at ambient room temperatures.

1.05 ENVIRONMENTAL REQUIREMENTS

A. Do not install signs when ambient temperature is below 70 degF or above 90 degF. Maintain minimum and maximum range during and after installation of signs.

PART 2: PRODUCTS

2.01 MANUFACTURERS

A. Neutraface designed by Christian Schwartz and available from House Industries.

B. Substitutions: Under provisions of Division 1.

2.02 LETTERING (EXTERIOR)

A. Buiilding Name and Address:

1. Building Name: "COACHELLA VALLEY VOLUNTEERS IN MEDICINE" 12" Neutraface Bold. Letters will be individually mounted onto stucco using hidden pin method that provides for a 1" stand-off from the wall surface. Letters will be mounted per the locations shown on the drawings.

2. Building Address: "82-915 AVENUE 48" 12" Neutraface Bold. Letters will be individually mounted onto stucco using hidden pin method that provides for a 1" stand-off from the wall surface. Letters will be mounted per the locations shown on the drawings.

B. Aluminum Plate: For exterior surfaces of sign, provide 1/8" flat panel (not rolled stock), alloy #3003, H14 mill finish or as required to meet fabrication or engineering requirements. Aluminum shall be finished in a gloss black finish.

C. Mounting Hardware: stainless steel screws.

2.03 LETTERING (INTERIOR, EXTERIOR IDENTIFICATION and EXIT SIGNS)

A. Type: ¾" to 2" Neutraface Bold, Upper Case.

B. Fabrication: 3/16" acrylic sign panel with raised letters and Braille in accordance with ADA requirements and drawings. Mounted on the latch side. Center of sign panel to be 60" from ground level. See A7.1 for sign types and locations.

C. Sign Schedule: (See Door Schedule – A7.1)

2.04 SIGNS FOR ACCESSIBILITY

A. Character type: Characters on signs shall be raised 1/32 inch minimum and shall be sans serif uppercase characters accompanied by Grade 2 Braille.

B. Character size: Raised characters shall be a minimum of 5/8 inch and a maximum of 2 inches high.

C. Finish and contrast: Contrast between character, symbols and their background must be 70% minimum and have a non-glare finish. CBC Section 1117B.5.3.

D. Proportions: Characters on signs shall have a width to height ratio of between 3:5 and 1:1 and a stroke width to height ratio of between 1:5 and 1:10. CBC Section 1117B.5.3. All letters measured must be uppercase. After choosing a typestyle to test, begin by printing the letters **I**, **X**, and **O** at 1 inch high. Place the template's 1:1 square over the **X** or **O,** whichever is narrower. If the character is not wider than 1 inch, nor narrower than the 3:5 rectangle, the proportions are correct. Use the 1:5 rectangle to determine if the stroke of the **I** is too broad, and the 1:10 rectangle to see if it is too narrow. If all tests are passed, the typestyle is compliant with proportion code.

E. Braille: California (contracted) Grade 2 Braille shall be used wherever Braille is required in other portions of these standards. Dots shall be 1/10 inch on centers in each cell with 2/10 inch space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be raised a minimum of 1/40 inch above the background. Dots shall be rounded or domed California Braille dots, each distinct and separate.

PART 3: EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive work.

B. Beginning of installation means installer accepts existing surfaces.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install signs after doors or surfaces are finished, in locations scheduled.

C. Locate sign on door or wall surface, level.

D. Clean and polish.

END OF SECTION

SECTION 10522

FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all fire extinguishers, cabinets and accessories, as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified in Division 15: Fire protection systems.

1.02 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver cabinets in time to allow installation.

B. Deliver and install filled and charged extinguishers just prior to building occupancy.

1.03 SUBMITTALS

A. Data

1. Submit manufacturer's technical and installation data.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Fire extinguishers and cabinets:

a. J.L. Industries.

2. Approved optional manufacturer: Larsen's Manufacturing Co.

3. Other manufacturers desiring approval comply with Section 01640.

B. Recess mounted fire extinguisher cabinet:

J.L. Industries "Panorama Steel" 1815-Q-43. Steel Trim material, recess mounted with fasteners, 1 ½" face trim on frame; SAF-T-LOK lock; vertical "FIRE EXTINGUISHER" decal in red letters. Provide standard white powder coated tub.

C. Surface mounting fire extinguisher cabinet:

J.L. Industries "Panorama Steel" 1013-Q-43. Steel Trim material, surface mounted by fasteners, 1 1/4" face trim on frame; SAF-T-LOK lock; white background on door with vertical "FIRE EXTINGUISHER" decal in red letters. Provide standard white powder coated tub.

D. Wall brackets:

1. Bracket type to fit specified extinguisher, with correct mounting accessories to fit substrate.

E. Fire extinguishers: Multi-purpose Dry Chemical

1. Steel bodied, U/L Rated, 2A-10BC, with all metal top (head) and valve, Cosmic Model 5E.

2. Furnish one extinguisher for each extinguisher cabinet and fire extinguisher location.

3. Finish: Red, in accord with OSHA requirements.

4. Location: See floor plans, mount at +5'-0" to top of cabinet.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrates to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Install in accord with manufacturer's instructions.

B. Provide all required closures.

C. Install units with extinguisher top not over 60" above floor.

END OF SECTION

SECTION 10800

TOILET AND BATH ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all toilet and bath accessories as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Section 06200 - Finish Carpentry

C. Schedule of accessories:

1. Provide the following accessories in each toilet room.

a. Stat Lab Toilet (1006):

1	TA-1
1	TA-3
1	TA-12

b. On-Call Toilet (1013):

1	TA-1
1	TA-3
1	TA-10
1	TA-12

c. Suture Toilet (1028):

1 TA-3
1 TA-4
1 TA-7
1 TA-12

d. Observation Toilet (1040):

1 TA-3
1 TA-4
1 TA-7
1 TA-12

e. Toilet (1046):

1 TA-3
1 TA-4
1 TA-12

f. Seclusion Toilet (1048):

1 TA-3
1 TA-4
1 TA-7

g. Isolation Toilet (1049):

1 TA-3
1 TA-4
2 TA-7
1 TA-9
1 TA-13

h. OB/GYN Toilet (1059):

1 TA-3
1 TA-5
1 TA-7
1 TA-12

i. Women's Locker Room (1073):

1 TA-3
1 TA-5
1 TA-12

j. Men's Locker Room (1076):

1 TA-3

1 TA-4
1 TA-12

k. Public Male Toilet Room (1079):

1 TA-2
1 TA-3
1 TA-7
2 TA-13

l. Public Female Toilet Room (1082):

1 TA-2
1 TA-6
1 TA-7
1 TA-11
1 TA-13

1.02 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver anchorage items in time to allow installation.

PART 2 - PRODUCTS

2.01 GENERAL

A. Approved manufacturers:

1. Bobrick Washroom Equipment, Inc.

B. Approved Optional Manufacturers: Accessory Specialties, Inc.; American Dispenser Co., Inc.; Bradley Corp.; and Charles Parker Co.

C. Other manufacturers of a complete line of stainless steel accessories desiring approval comply with Section 00440.

D. Provide equipment from one manufacturer as far as is practicable.

E. All items: Stainless steel.

F. Grab Bars: 1-1/2" OD, satin finish stainless steel.

1. Concealed mounting.

2. 1-1/2" clearance between bar and wall.

3. Modify manufacturer's standard units if required.

4. Fully weld bars to flanges.

5. Provide anchoring devices to withstand minimum concentrated load of 250 lb. (115 KG).

6. Mounting devices for gypsum wallboard: Bobrick Type 256

7. Mounting devices for concrete block walls: Bobrick Type 257

8. Mounting on other surfaces: As recommended by manufacturer.

D. See accessory schedule or drawings for items, quantities and locations required.

2.02 TOILET ACCESSORIES

TA-1: Toilet Seat Cover Dispenser, Roll Toilet Dispenser - Bobrick B-3474

TA-2: Paper Towel Dispenser (large capacity) - Bobrick - B-3900

TA-3: Paper Towel Dispenser - Bobrick B-369

TA-4: Toilet Seat Cover Dispenser, Roll Toilet Dispenser (Theft-resistant spindle) - Bobrick B-3474.60

TA-5: Toilet Seat Cover Dispenser, Napkin Disposal, Toilet Tissue Dispenser (Theft resistant spindle) - Bobrick B-3574.60

TA-6: Toilet Seat Cover Dispenser, Napkin Disposal, Toilet Tissue Dispenser (Mounted through partition - with theft resistant spindle) - Bobrick 3571.60

TA-7: Grab Bar (36" x 48") - Bobrick B-6237

TA-9: Shower Seat (folding type) - Bobrick B-517 (right hand)

TA-10: Towel Bar (24") - Bobrick B-530

TA-11: Sanitary Napkin-Tampon Dispenser (10 cents operation) - Bobrick B-3502

TA-12: Liquid Soap Dispenser - Bobrick B-829

TA-13: Liquid Soap Dispenser (Handicapped version) - Bobrick B-822

TA-14: Hand dryer (recessed) 208 VAC. - Bobrick B-7507

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Where item is mounted on or in a toilet partition, verify that suitable interior reinforcing is in place.

C. Installation constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Mount all items with theft proof fasteners.

B. Coordinate items to avoid mounting conflicts.

C. Mount handicap items in accord with Handicap Code.

3.03 ACCESSORY SCHEDULE

A. See drawings for location of accessories.

END OF SECTION

SECTION 10950

MISCELLANEOUS SPECIALTIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all miscellaneous specialty items as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. Items, finishes, colors or other items as requested by Architect.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver anchorage items as required to allow timely installation.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:

1. Materials listed:

a. Base: As noted.

2. Other manufacturers desiring approval comply with Section 00440.

2.02 SCHEDULE OF ITEMS

A. Entrance Mat (Foot Grill):

1. Construction Specialties, Inc. - Pedimat

a. Model PM375RM - Carpet for main entrance area. Color to be selected by Architect.

b. Model PM475RM - Vinyl for ambulance entrance area. Color to be selected by Architect.

c. Fully recessed type - flush with finish flooring.

d. Provide all accessories, frame, etc. for complete installation.

B. Mop Rack: Furnish and install one (1) 24" long (3 holders) broom and mop holder No. B-223 x 24" as manufactured by "Bobrick Washroom Equipment, Inc.". To be installed on wall, directly above mop sink in all JANITOR'S ROOMS, and 48" above the floor. Provide backing for rack.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to receive items.

B. Do not install until deficiencies are corrected.

C. Installation constitutes acceptance of responsibility for performance. Coordinate as required.

3.02 INSTALLATION

A. Install according to manufacturer's instructions and recommendations.

END OF SECTION

DIVISION 11
EQUIPMENT

SECTION 11450

RESIDENTIAL EQUIPMENT

PART 1 – GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all appliances as indicated, in accord with provisions of contract documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

B. Related work specified elsewhere:

1. Identification of mechanical and electrical work: See Divisions 15 and 16.

1.02 QUALITY ASSURANCE

A. Shop Drawings

1. Per Section 01340, submit brochures of all items showing sizes, mounting techniques (where applicable) and technical data.

B. Measurements

1. Verify all dimensions shown on Drawings by taking field measurements; proper fit and attachment of all parts is required.

C. Coordination

1. Coordinate and cooperate with all trades whose work relates in any way to items specified herein so work progresses smoothly and without delay.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver and store all items in dry, protected area. Keep free of corrosion or other damage. Replace any damaged items, or parts at no cost to Owner.

B. Inspection

1. Examine all subsurfaces to receive work and report in writing to General Contractor, with a copy to Architect, any conditions detrimental to work. Failure to observe this injunction constitutes a waiver to any subsequent claims to the contrary and makes Contractor responsible for any corrections Architect may require. Commencement of work will be construed as acceptance of all subsurfaces.

PART 2 – PRODUCTS

2.01 EQUIPMENT

A. Kitchen:

1. Refrigerator: Sub Zero Model 700TR – All refrigerator unit, (80"H x 27"W x 24"D) with Classic stainless steel finish. Left hand swing with Classic stainless steel tubular handles. Include dual installation heater kit #7007529. The heater plate from this kit is to be installed to the left side exterior of the right hand unit (freezer) before the units are slid into position. Electrical – 115 V AC, 60 Hz, 15 amp circuit breaker.

2. Freezer: Sub Zero Model 700TFI – All freezer unit with built-in ice maker, (80"H x 27"W x 24"D) with Classic stainless steel finish. Right hand swing with Classic stainless steel tubular handles. Requires a ½" cold water line with shut off valve. Ice Maker has a ¼" water line. Electrical – 115 V AC, 60 Hz, 15 amp circuit breaker.

3. Dishwasher: Miele – La Perla model # 2832SCI full size dishwasher with Multi-function basket; (23-9/16" W x 33-1/4" – 35-3/4" H x 22-7/16" D); Electrical – 120 V AC, 60 Hz, 15 amps. Provide a custom cabinet front panel of Bamboo wood to match adjacent cabinetry.

4. Disposer: In-Sink Erator (ISE) Evolution "Excel" (continuous feed); stainless steel outer jacket; Auto-reverse Grind System; Stainless Steel Grind Chamber and components; 1 HP, single-phase, 120 V AC, 60 Hz, 15 amps (10.2 amps connected load).

5. Microwave/Convection Oven: Thermador Professional Series 27" wide Stainless Steel with Convection Microwave Oven – Model #MCES; (23-7/8" W x 19-5/16" D x 14-13/16" H); Electrical – 120 V AC 60 Hz, 15 amps. Provide Thermador trim kit model # MCT27ES.

6. Built-in Ovens: Thermador Professional Series 30" wide Stainless Steel electric with "True Convection" Double Ovens – Model #PO302; (29 ¾" W x 23-7/8" D x 51-3/4" H); Electrical – Dual rated 120/208-240 V 4-wire AC 60 Hz, single-phase, 40 amps.

7. Warming/Convection Drawer: Thermador Professional Series 30" wide Stainless Steel Warming/Convection Drawer – Model #WDC30E; (29-3/4" W x 22-3/4" D x 11-1/4" H); Electrical – 120 V AC 60 Hz, 20 amps, 930 watts. Provide Thermador stainless steel drawer front model # WDF30EP, with professional handle design.

8. Trash Compactor: GE Monogram model # ZCGP150PII trash compactor; (15" W x 34-1/8" H x 24" D); Electrical – 115 V AC, 60 Hz, 15 amps. Provide a custom cabinet front panel of Bamboo wood to match adjacent cabinetry.

9. Coffee System: Miele 24" wide stainless steel built-in coffee system – Model #MCES; (23-7/16" W x 18-1/8" D x 17-15/16" H); Electrical – 120 V AC 60 Hz, 15 amps. Provide standard NEMA 5 – 15 amp outlet.

10. Ventilator Hood: Thermador 36" wide professional series stainless steel hood insert – Model #VCI236DS; (33-58" W x 18-5/8" D x 4-1/8" H); electronic push-button controls; 2 removable and washable filters; two halogen lamps; 10" diameter exhaust duct; Remote Ventilator – 1000 CFM exhaust motor Model # VTR1030D, with Roof Plate model # RFPLT1000 for roof top mounting. Electrical – 120 V AC, 60 Hz, 15 amps (10.3 amps connected load).

11. Cook Top: Thermador Professional Series 36" wide Stainless Steel natural gas Cooktop – Model #PCG366E; six star burners (2 with "Extralow"); (35-15/16" W x 25-3/8" D x 8-1/16" H); 90,000 BTU/HR gas demand; Electrical – 115 V AC, 60 Hz, 15 amps.

12. Wine Cooler: Sub Zero Model 424 – Built-in refrigerated wine cooler unit, (34 ½" H x 24" W x 24" D) with Classic stainless steel finish. Left hand swing with Classic stainless steel tubular handles. Electrical – 115 V AC, 60 Hz, 15 amp circuit breaker.

B. Laundry:

1. Washer: Bosch Nexxt 800 Series - (27" W x 36-15/16" H x 31-9/16" D) Model #WFMC8401UC – Silver/White Duo-Tone; 4 cu. ft.; 1200 RPM spin Speed; Electrical – 120V AC, 60 Hz, 15 Amp load, 1000 watts. Door shall be hinged on the left side.

2. Dryer: Bosch Nexxt 800 Series - (27" W x 36-15/16" H x 31-9/16" D) Model #WTMC8521UC – Silver/White Duo-Tone; Electrical – 120V AC, 60 Hz, 15 Amp load, 18,500 BTU/HR gas demand, 290 CFM. Door shall be hinged on the right side.

3. Built-in Ironing Center: Iron-Away built-in ironing center – model #A-46; 60-5/8" H x 15" W x 7-3/8" D; fully recessed in wall; Electrical – 115/120 V AC, 15 amp load, direct wired. Unit shall be ordered without

door panel for custom door panel supplied by cabinet maker to match bamboo cabinetry. Unit shall be ordered to accommodate custom door panel to be hinged on the left side.

C. Barbeque Area:

1. Barbeque Unit: Dacor "Epicure" Model # OB36/NG - (36" W x 25-1/8" H x 27" D); For use with Natural gas; Built-in Halogen lighting; 18 GA 304 Stainless Steel finish; 73,000 BTU/HR gas demand; Electrical – 120V AC, 60 Hz, 15 Amp circuit (2.9 amp connected load). Provide Pair of stainless steel doors – Dacor Model # OBAD36 (35-7/8" W x 21" H x ¼" D). Include Outdoor Grill Cover for 36" wide model.

PART 3 – EXECUTION

3.01 ANCHORAGE

A. Furnish and install all anchorage devices required to install the item and its appurtenances, complete. Provide anchorage in ample time when required to be built by other trades.

3.02 INSTALLATION

A. Install all items called for to be installed by manufacturer or supplier. Install per details on Drawings, manufacturers' printed installation instructions and any additional requirements specified. All wall-mounted items shall be securely fastened to solid backing and blocking.

3.03 CLEANUP

A. Dispose of all cartons, packing material, and excess parts not used.

B. Clean up all appliances/equipment and leave in good working condition.

3.04 WARRANTY

A. Minimum of one year on each appliance. See specific appliance for longer standard warranties issued by manufacturers.

END OF SECTION

SECTION 11700

MEDICAL EQUIPMENT

PART 1 - GENERAL

A. Drawings and general provisions of contract, including General and Supplementary Conditions and Division-1, Specification sections, apply to work of this Section.

1.01 DESCRIPTION OF WORK

A. The extent of medical equipment in indicated on the drawings and by provisions of this Section, including schedules and equipment lists associated with either drawings or this Section.

1. Contractor Furnished and Contractor Installed Equipment: The Contractor shall provide all materials, equipment specified, and labor required to provide complete operating equipment.
2. Owner Furnished and Contractor Installed: The Contractor shall provide all the materials and labor required to install and leave in operating condition all "Owner furnished/Contractor installed" equipment.
3. Owner Furnished and Owner Installed: The Owner shall be responsible for all equipment and installation, however, the Contractor shall be responsible for providing all services and operations to prepare space and utilities for this equipment.
4. For responsibility of equipment procurement and installation, refer to the Medical Equipment drawings, which are a part of the construction documents.

1.02 QUALITY ASSURANCE

A. Installer

Where indicated units of equipment require shop/field custom fabrication, provide units fabricated and installed by shops which are skilled and which have a minimum of 5 years of experience in similar work.

B. Submittals (For All Except Owner Furnished/ Owner Installed Equipment)

1. Product Data

Submit manufacturer's product specifications and installation instructions for each item; include rough-in dimensions, service connections, performances, power/fuel requirements, water/drainage requirements, environmental requirements, seismic mounting requirements and similar information.

2. Shop Drawings

Submit plans, elevations, sections and details of custom-fabricated units and of assembled units made up of manufactured equipment. Show required services by size and location.

3. Maintenance Manuals

Submit bound manuals for maintenance of operative medical equipment items. For each item, include operating and cleaning/maintenance instructions, parts listing, recommended parts inventory listing, purchase source listing, copy of warranties, estimated annual cost for maintenance and supplies, and similar applicable information.

PART 2 - EQUIPMENT

PART 3 - EXECUTION

3.01 INSPECTION AND PREPARATION

A. Rough-In Work

Installer of medical equipment must examine roughed-in electrical services, and installation of floors, walls, columns and ceilings, and conditions under which the work is to be installed; and must verify dimensions of services and substrates before installing the work. Notify Contractor in writing of unsatisfactory locations and dimensions of other work, and of unsatisfactory conditions for proper installation of medical equipment. Do no proceed with installation until unsatisfactory dimensions and conditions have been corrected in a manner acceptable to Installer.

3.02 DELIVERY

A. Quantities of each equipment item and locations for delivery and installation shall be as indicated on the drawings and equipment listings.

B. Room number for delivery and equipment item number shall be clearly marked on the packing crate or box for each equipment.

3.03 INSTALLATION

A. Service Lines and Equipment Connections: Comply with applicable requirements of: Division 15 sections for mechanical work including equipment connection; Division 16 sections for electrical work including equipment connections.

B. Set each item of nonmobile and nonportable equipment securely in place, leveled and adjusted to correct height. Anchor to supporting substrate where

indicated and where required for sustained operation and use without shifting or dislocation.

3.04 CLEANING, RESTORING FINISHES

A. After completion of installation, and completion of other major work in medical areas, remove protective coverages, if any, and clean medical equipment, internally and externally. Restore exposed and semi-exposed finishes to remove abrasions and other damages; polish exposed-metal surfaces and touch-up painted surfaces. Replace work which cannot be successfully restored, at no additional cost to the Owner.

3.05 TESTING, START-UP AND INSTRUCTIONS

A. General

Delay start-up of medical equipment until service lines have been tested, balanced, and adjusted for voltage and similar consideration.

B. Test each item of operational equipment to demonstrate that it is operating properly, and that controls and safety devices are functioning. Repair or replace equipment which is found to be defective in its operation, including units which are below capacity or operating with excessive noise or vibration, at no additional cost to the Owner.

C. Payment for medical equipment will be made only after acceptance testing has been completed, and found to be acceptable by the Owner.

D. Instruct Owner's operating personnel in proper operation and maintenance procedures for each item of operational medical equipment.

E. Final Cleaning: After testing and start-up, and before the time of substantial completion, clean medical equipment, and leave in condition ready for use.

3.06 WARRANTY

A. All items, systems or units of equipment included in the Proposal shall have individual guarantees/warrantees from the manufacturer. Collective guarantees for all items of equipment by the same manufacturer are not acceptable. These guarantees shall be delivered in two (2) copies to the Owner in bound volumes, properly indexed. The guarantee shall be identified explicitly as to item by generic name, serial number and building locations (by room number). This guarantee shall provide for, as a minimum, the following supplemental conditions of guarantee/warranty for products specified. Time: one calendar year beginning when the owner accepts that item, system, or unit of equipment as complete, functional, and approved in writing, or at a later agreed date between owner and manufacturer, or installer. The manufacturer guarantees that all items, systems, components, accessories, functional capabilities and labor supplied conform to specifications, drawings, and other descriptions supplied by

the hospital and are sufficient for the purpose for which they are intended, of good material, design and workmanship and free from defects. In addition, the manufacturer will repair or replace free of cost, any equipment or parts that shall, in normal use and service and under proper operation, fail because of faulty design or workmanship or defective material. The owner shall incur no expense for labor, material, freight, parts or other such ancillary cost related to failure because of the aforementioned reasons. If the item, system, or unit of equipment fails to meet any guaranteed provision within the time frame identified in the preceding, the guarantee period shall be considered to begin anew starting from the date of written acceptance by the Owner of satisfactory repair/replacement and continuing for a period of one calendar year therefrom except for items having a guarantee in excess of one calendar year.

END OF SECTION

DIVISION 12
FURNISHINGS

SECTION 12490

WINDOW TREATMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all window treatments as indicated, in accord with provisions of Contract Documents.

2. Completely coordinate with work of all other trades.

3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

4. See Division 1 for General Requirements.

1.02 SUBMITTALS (SEE SECTION 01340)

A. Samples:

1. Full range of standard colors for selection by Architect. Only one color shall be selected for all blinds.

B. Data:

1. Provide complete technical and installation data.

C. Shop Drawings:

1. Provide complete shop drawings of each window treatment including lengths, heights and details for attachment to walls.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver anchorage items in time to allow installation.

1.04 JOB CONDITIONS

A. Verify dimensions by field measurements before fabrication, wherever possible without delaying project.

PART 2 - PRODUCTS

2.01 MATERIALS - GENERAL

A. Acceptable manufacturers:

1. Vertical Blinds:

a. Base: Levolor

2. Other manufacturers desiring approval comply with Section 01640.

B. Vertical Blinds: LXT – 2000 Vertical Blind with Headrail

1. Material: PVC Blades - 2" wide.

2. One Way Draw Type: Minimum is 13 1/8" and maximum is 150 7/8". Maximum height is 96". Draw direction shall allow for the operable sliding door to be unobstructed by the stacking blinds.

3. Locations: Provide blinds on windows and sliding glass doors # 1; 3; 4; 5; 6; 7; 12; 14; 17; 18; 19 and 21.

C. Valances: Provide 1 1/16" deep x 1 ¼" high aluminum head rail, same color as vanes.

D. Anchorages and fasteners:

1. Exposed fasteners: Manufacturer's standard stainless steel or brass, finish to match hardware.

2. Concealed anchors: Galvanized steel, hot-dip coated after fabrication complying with ASTM A385.

2.02 FABRICATION

A. Preassemble units in shop to lengths specified. No field cutting of rails will be allowed.

B. Fabricate system in accord with manufacturer's specifications.

C. Provide concealed reinforcement for installation of hardware, fittings, brackets, and required accessories.

1. After fabrication, clean steel surfaces to remove processing compounds and other contaminants.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Correct unsatisfactory constitutes acceptance of responsibility for performance.

3.02 INSTALLATION

A. Install in a rigid, straight, plumb and level manner.

1. Secure to walls with minimum of three brackets.

2. Use manufacturer's recommended anchoring devices, as indicated on shop drawings.

3.03 ADJUST AND CLEAN

A. Adjust and lubricate hardware for proper operation after installation.

B. Protect until time of acceptance by Owner.

C. Replace damaged work as directed.

D. Perform final adjustments just prior to final inspection.

E. Clean exposed surfaces, hardware, fittings and accessories and replace any blades or valances that are scratched or contain imperfections.

END OF SECTION

DIVISION 13
SPECIAL CONSTRUCTION
(NOT USED)

DIVISION 14
CONVEYING SYSTEMS
(NOT USED)

DIVISION 15
MECHANICAL