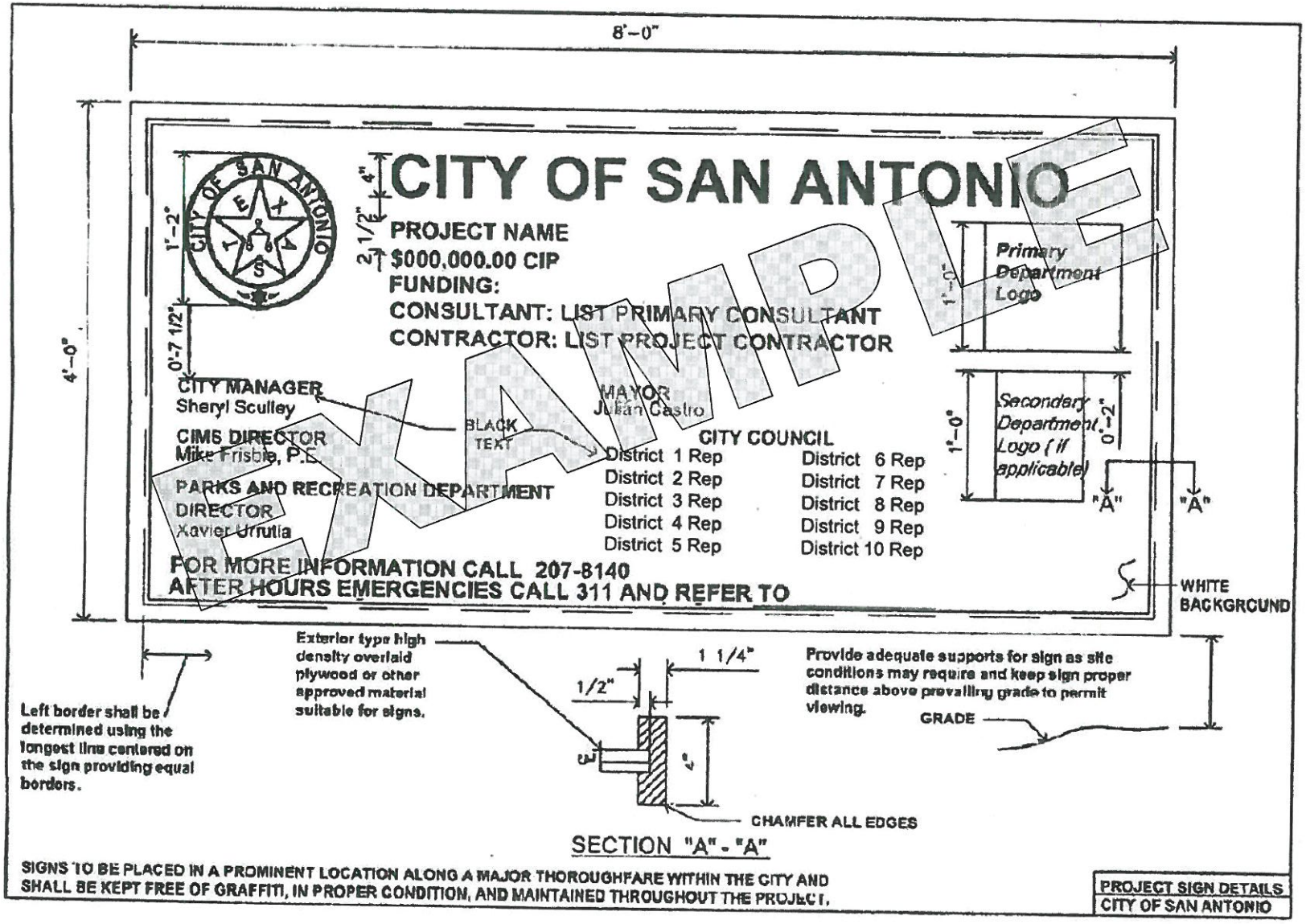

* FOR GENERAL INFO ONLY

CITY OF SAN ANTONIO PROCUREMENT AND CONTRACTING REQUIREMENTS

FOLLOW THE LINK TO ACCESS THE FOLLOWING DOCUMENTS:

http://www.sanantonio.gov/purchasing/biddingcontract/closedsolicitations.aspx

1. 011 RFCSP
2. RFCSP SUBMITTAL CHECKLIST AND TABLE OF CONTENTS
3. 020 BID FORM
4. 040 STANDARD INSTRUCTIONS FOR RESPONDENTS
5. 045 STATEMENT OF QUALIFICATIONS
6. 050 SBEDA GUIDELINES
7. SBEDA SUBCONTRACTOR/SUPPLIER UTILIZATION PLAN
8. 060 SUPPLEMENTAL CONDITIONS
9. 075 PERFORMANCE BOND
10. 076 PAYMENT BOND
11. 081 GENERAL CONDITIONS
12. BUILDING WAGE DECISION
13. SOLICITATION RESPONSE TIP LIST
14. PRE-SUBMITTAL SBEDA PRESENTATION
15. GOOD FAITH EFFORT TIPS FOR SBEDA WAIVERS
16. PRE-SUBMITTAL AGENDA
17. PRE-SUBMITTAL SIGN-IN SHEET
18. HIGH PROFILE LANGUAGE
19. ADDENDUM 1
20. ADDENDUM 2
21. ADDENDUM 3
22. EVALUATION COMMITTEE MEMBERS

SECTION 00 0110

TABLE OF CONTENTS

END OF TABLE OF CONTENTS

SECTION 01 2300
ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of alternates.

1.02 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

1.03 SCHEDULE OF ALTERNATES

A. Alternate No. 1 - State the price to add Flex Room 109, Adult Porch 133 and Parent/Child Porch134. The structural foundations for the above listed areas is to be provided in the base bid.

B. Alternate No. 2 - State the price to add the steel framed trellis and associated concrete foundation.

C. Alternate No. 3 - State the price to install W24x55 steel roof beams in lieu of the CB24x31 castellated beams. Refer Sheet S2.4.

D. Alternate No. 4 - State the pricet to remove/dispose two (2) pipe lengths of 12” asbestos concrete pipe, replace with 12” ductile iron pipe, and install 12”x6” anchor tee in lieu of encapsulated connection at fire service location. Cost shall include all fittings, couplings, pipe and appurtenances as required for connection.

E. Alternate No. 5 - State the price for substituting 6” ductile iron pipe in lieu of 6” DR14 PVC from tie-in to building.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

1

END OF SECTION

SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electronic document submittal service.
B. Preconstruction meeting.
C. Progress meetings.
D. Construction progress schedule.
E. Progress photographs.
F. Submittals for review, information, and project closeout.
G. Submittal procedures.

1.02 RELATED REQUIREMENTS

A. Document 00 7200 - General Conditions: Dates for applications for payment.
B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
C. Section 01 7800 - Closeout Submittals: Project record documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ELECTRONIC DOCUMENT SUBMITTAL SERVICE

A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF) format and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.
   1. Besides submittals for review, information, and closeout, this procedure applies to requests for information (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, and any other document any participant wishes to make part of the project record.
   2. Contractor and Architect are required to use this service.
   3. It is Contractor's responsibility to submit documents in PDF format.
   4. Subcontractors, suppliers, and Architect's consultants are to be permitted to use the service at no extra charge.
   5. Users of the service need an email address, Internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com), unless such software capability is provided by the service provider.
   6. Paper document transmittals will not be reviewed; emailed PDF documents will not be reviewed.
   7. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.

B. Cost: The cost of the service is to be paid by Contractor; include the cost of the service in the contract sum.

C. Submittal Service: The selected service is:
   1. COSA PRIMELink.

D. Training: One, one-hour, web-based training session will be arranged for all participants, with representatives of Architect and Contractor participating; further training is the responsibility of the user of the service.

E. Project Closeout: Architect will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.

3.02 PRECONSTRUCTION MEETING

A. Attendance Required:
   1. Owner.
   2. Architect.
   3. Contractor.

B. Agenda:

1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
5. Designation of personnel representing the parties to Contract, and Architect.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.
8. Scheduling activities of a Geotechnical Engineer.

C. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.

B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.

C. Agenda:
1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems that impede, or will impede, planned progress.
5. Review of submittals schedule and status of submittals.
6. Maintenance of progress schedule.
7. Corrective measures to regain projected schedules.
8. Planned progress during succeeding work period.
9. Maintenance of quality and work standards.
10. Effect of proposed changes on progress schedule and coordination.
11. Other business relating to Work.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.

B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.

C. Within 10 days after joint review, submit complete schedule.

D. Submit updated schedule with each Application for Payment.

3.05 PROGRESS PHOTOGRAPHS

A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.

B. Photography Type: Digital; electronic files.

C. In addition to periodic, recurring views, take photographs of each of the following events:
1. Completion of site clearing.
2. Excavations in progress.
3. Foundations in progress and upon completion.
4. Structural framing in progress and upon completion.
5. Enclosure of building, upon completion.

D. Take photographs as evidence of existing project conditions as follows:
1. Interior views.
2. Exterior views.

E. Views:
1. Provide non-aerial photographs from four cardinal views at each specified time, until Date of Substantial Completion.
2. Consult with Architect for instructions on views required.

3. Provide factual presentation.
4. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

F. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
1. Delivery Medium: Via email.
2. File Naming: Include project identification, date and time of view, and view identification.
3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
4. Hard Copy: Printed hardcopy (grayscale) of PDF file and point of view sketch.

3.06 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
1. Product data.
2. Shop drawings.
3. Samples for selection.
4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

C. Samples will be reviewed only for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - CLOSEOUT SUBMITTALS.

3.07 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner. No action will be taken.

3.08 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
1. Project record documents.
2. Operation and maintenance data.
3. Warranties.
4. Bonds.
5. Other types as indicated.

B. Submit for Owner's benefit during and after project completion.

3.09 NUMBER OF COPIES OF SUBMITTALS

A. Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.

B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
1. After review, produce duplicates.
2. Retained samples will not be returned to Contractor unless specifically so stated.

3.10 SUBMITTAL PROCEDURES

A. Transmit each submittal with approved form.

B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.

C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.

D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.

E. Schedule submittals to expedite the Project, and coordinate submission of related items.

F. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

G. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.

H. Provide space for Contractor and Architect review stamps.

I. When revised for resubmission, identify all changes made since previous submission.

J. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

K. Submittals not requested will not be recognized or processed.

END OF SECTION

SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary utilities.
B. Temporary telecommunications services.
C. Temporary sanitary facilities.
D. Temporary Controls: Barriers, enclosures, and fencing.
E. Security requirements.
F. Waste removal facilities and services.
G. Project identification sign.
H. Field offices.

1.02 TEMPORARY UTILITIES

A. Provide and pay for all electrical power, lighting, and water required for construction purposes.
B. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TELECOMMUNICATIONS SERVICES

A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
B. Telecommunications services shall include:
   1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
   2. Telephone Land Lines: One line, minimum; one handset per line.
   3. Internet Connections: Minimum of one; DSL modem or faster.
   4. Email: Account/address reserved for project use.
   5. Facsimile Service: Minimum of one dedicated fax machine/printer, with dedicated phone line.
   6. Facsimile Service: Fax-to-email software on personal computer.

1.04 TEMPORARY SANITARY FACILITIES

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

1.05 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations .

1.06 FENCING

A. Construction: 6' - 0" high fence following "Limits of Construction" indicated on Sheet C5.0 as well as propertly lines along the north and west of the site..

1

1.07 INTERIOR ENCLOSURES

A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.08 SECURITY - SEE SECTION 01 3553

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

1.09 WASTE REMOVAL

A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
B. Provide containers with lids. Remove trash from site periodically.

C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.10 PROJECT IDENTIFICATION

A. Provide two (2) project 4'x8' identification signs. One sign shall include all project information and stakeholders. The second sign shall have a rendering of the project as well as basic project information.

1

B. Erect on site at locations coordinated with Owner.

C. No other signs are allowed without Owner permission except those required by law.

1.11 FIELD OFFICES - SEE SECTION 01 5213

A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.

B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

C. Locate offices a minimum distance of 30 feet from existing and new structures.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.

C. Clean and repair damage caused by installation or use of temporary work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 07 5400
THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Adhered system with thermoplastic roofing membrane.

B. Insulation, flat.

C. Flashings.

D. Roofing stack boots. 1

1.02 RELATED REQUIREMENTS

A. Section 05 3100 - Steel Decking: Product requirements for acoustical insulation for deck flutes, for placement by this section.

B. Section 06 1000 - Rough Carpentry: Wood nailers and curbs.

C. Section 07 6200 - Sheet Metal Flashing and Trim: Counterflashings, reglets, and fascias. 1

1.03 REFERENCE STANDARDS

A. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2014.

B. ASTM D4434/D4434M Type III- Standard Specification for Poly(Vinyl Chloride) Sheet Roofing; 2012.

C. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces; 2011.

D. FM DS 1-28 - Wind Design; Factory Mutual Research Corporation; 2007.

E. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.

1.04 SUBMITTALS

A. Product Data: Provide data indicating membrane materials, flashing materials, insulation, and fasteners.

B. Specimen Warranty: For approval.

C. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with other materials, and paver layout.

D. Samples for Verification: Submit two samples 12x12 inches in size illustrating insulation and colored coating.

E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.

F. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

G. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.

H. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

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

B. Installer Qualifications: Company specializing in performing the work of this section:
   1. Approved by membrane manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

B. Store products in weather protected environment, clear of ground and moisture.

C. Protect foam insulation from direct exposure to sunlight.

1.07 FIELD CONDITIONS

A. Do not apply roofing membrane during unsuitable weather.

B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above 95 degrees F.

C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.08 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
   1. Warranty Term: 20 years.
   2. For repair and replacement include costs of both material and labor in warranty.
   3. For replacement of damaged building contents due to roof leaks.
   4. Exceptions NOT Permitted:
      a. Damage due to roof traffic.
      b. Damage due to wind of speed greater than 56 mph but less than 90 mph.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. PVC Membrane Materials:
   1. Sika Sarnafil, a Division of Sika Corporation; : www.sarnafilus.com.
   2. Fibertite: KEE Based Sheet Roofing ASTM 6754-02: www.fibertite.com
   3. Durolast: www.duro-last.com

B. Insulation:
   1. Atlas Roofing Corporation: www.atlasroofing.com.
   2. Carlisle SynTec; SecurShield Insulation: www.carlisle-syntec.com.
   3. GAF; EnergyGuard Polylso Insulation: www.gaf.com.
   4. Hunter Panels, LLC: www.hpanels.com.

2.02 ROOFING - UNBALLASTED APPLICATIONS

A. Thermoplastic Membrane Roofing: One ply membrane, mechanically fastened, over insulation.

B. Roofing Assembly Requirements:
   1. Solar Reflectance Index (SRI): 78, minimum, calculated in accordance with ASTM E1980.
      a. Field applied coating may not be used to achieve specified SRI.
   2. Factory Mutual Classification: Class I and windstorm resistance of I-90, in accordance with FM DS 1-28.
   3. Insulation Thermal Value (R), minimum: 4 inches; provide insulation of thickness required.

C. Acceptable Insulation Types - Constant Thickness Application: Any of the types specified.
   1. Bottom layer of polyisocyanurate board covered with single layer of polyisocyanurate board.

D. Acceptable Insulation Types - Tapered Application: Any of the types specified.
   1. Uniform thickness polyisocyanurate board covered with tapered extruded polystyrene or perlite board.

E. Surfacing: Colored roof coating.

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

A. Membrane:
   1. Material: Polyvinyl chloride complying with ASTM D4434/D4434M Tyoe III above and below internal fabric.
   2. Reinforcing: Internal fabric. ASTM D751.
   3. Thickness: 50 mil, (28 mils above internal fabric).
   4. Thickness: 0.060 inch, minimum.
   5. Sheet Width: Factory fabricated into largest sheets possible.
   6. Solar Reflectance: 95., minimum, initial, and 0.65, minimum, 3-year, certified by Cool Roof Rating Council.
   7. Color: Gray.

B. Seaming Materials: As recommended by membrane manufacturer.

C. Membrane Fasteners: As recommended and approved by membrane manufacturer.

D. Flexible Flashing Material: Same material as membrane.

2.04 INSULATION

A. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with ASTM C1289, Type II, Class 1, cellulose felt or glass fiber mat both faces; Grade 1 and with the following characteristics:
   1. Compressive Strength: 25 psi
   2. Board Size: 48x48 inch.
   3. Board Thickness: Two layers 2.0 inch minimum.
   4. Thermal Resistance: R-value of R-25 min.
   5. Board Edges: Square.
   6. Manufacturers:
      a. Atlas Roofing Corporation; ACFoam-II and Tapered ACFoam-II: www.atlasroofing.com.
      b. Dow Chemical Co: www.dow.com.
      c. GAF: www.gaf.com.
      d. Hunter Panels, LLC; H-Shield: www.hpanels.com.
      e. Versico, a division of Carlisle Construction Materials, Inc; SecurShield Insulation: www.versico.com.

2.05 ACCESSORIES

A. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.

B. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, compatible with roofing materials; 6 inches wide; self adhering.

C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
   1. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers. Fastners to penetrate deck no more than 1 inch.

D. Membrane Adhesive: As recommended by membrane manufacturer.

E. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.

F. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.

G. Insulation Adhesive: As recommended by insulation manufacturer.

H. Sealants: As recommended by membrane manufacturer.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.

B. Do not apply roofing membrane during unsuitable weather.

C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

F. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeds.

3.02 EXAMINATION

A. Verify that surfaces and site conditions are ready to receive work.

B. Verify deck is supported and secure.

C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.

D. Verify deck surfaces are dry and free of snow or ice.

E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.03 INSULATION - UNDER MEMBRANE

A. Attachment of Insulation:
   1. Mechanically fasten first layer of insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual requirements.
   2. Embed second layer of insulation into full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.

B. Lay subsequent layers of insulation with joints staggered minimum 6 inch from joints of preceding layer.

C. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.

D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

E. Tape joints of insulation in accordance with roofing and insulation manufacturers' instructions.

F. Install tapered insulation and "crickets" to direct water to drains.

G. Set roof drains at the membrane level.

H. Do not apply more insulation than can be covered with membrane in same day.

3.04 MEMBRANE APPLICATION

A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.

B. Shingle joints on sloped substrate in direction of drainage.

C. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.

D. Mechanical Attachment: Apply membrane and mechanical attachment devices in accordance with manufacturer's instructions.

E. At intersections with vertical surfaces:
   1. Extend membrane up a minimum of 8 inches onto vertical surfaces.
   2. Fully adhere flexible flashing over membrane and up to nailing strips.

F. At gravel stops, extend membrane under gravel stop and to the outside face of the wall.

G. Around roof penetrations, seal flanges and flashings with flexible flashing.

H. Coordinate installation of roof accessories and related flashings.

3.05 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for general requirements for field quality control and inspection.

B. Require site attendance of roofing and insulation material manufacturers daily during installation of the Work.

3.06 CLEANING

A. Remove bituminous markings from finished surfaces.

B. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.

C. Repair or replace defaced or damaged finishes caused by work of this section.

3.07 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

SECTION 07 6200
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, and fascias.

B. Reglets, trim and accessories.

1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Wood nailers.

B. Section 07 5400: Thermoplastic Membrane Roofing system.

C. Section 07 4113: Metal Roof Panels.

D. Sectioon 07 4213: Metal Wall Panels.

E. Section 07 9005 - Joint Sealers.

1.03 REFERENCE STANDARDS

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2013.

B. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2012)e1.

C. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2003.

1.04 SUBMITTALS

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

B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

C. Samples: Submit two samples 12X24 inch in size illustrating profile and metal finish colors of specified materials.

D. Mock-up: Provide a mockup sample of all sheet metal components.

1.05 QUALITY ASSURANCE

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

B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 10 years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

A. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 0.02 inch thick base metal.

B. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 0.02 inch thick base metal, shop pre-coated with KYNAR 500 coatingto match finishes of wall, soffits and roof metal panels.

2.02 ACCESSORIES

A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.

B. Underlayment: ASTM D2178, glass fiber roofing felt.

C. Primer: Zinc chromate type.

D. Protective Backing Paint: Zinc molybdate alkyd.

E. Sealant: Type specified in Section 07 9005.

F. Plastic Cement: ASTM D4586, Type I.

G. Reglets: Surface mounted type, galvanized steel .

H. Fascias: Pac-Tite WT Extended Fascia at PVC membrane roof edges as manufactured by Pac Clad, (aka Petersen Aluminum).

2.03 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of same material as sheet, minimum 4 inches wide, interlocking with sheet.

C. Form pieces in longest possible lengths.

D. Hem exposed edges on underside 1/2 inch; miter and seam corners.

E. Form fascia material with flat lock seams, except where otherwise indicated. At moving joints, use back plates and sealed lapped, bayonet-type or interlocking hooked seamed covers at 10 foot max spacing.

F. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.

G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.

H. Fabricate flashings to allow toe to extend 2 inches over roofing membrane. Return and brake edges.

2.04 GUTTER AND DOWNSPOUT FABRICATION

A. Gutters: SMACNA Architectural Sheet Metal Manual, Rectangular profile.

B. Downspouts: Rectangular profile.

C. Gutters and Downspouts: Size for rainfall intensity determined by a storm occurrence of 1 in 5 years in accordance with SMACNA Architectural Sheet Metal Manual.

D. Downspout Boots: Steel.

E. Seal metal joints.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.

B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.

C. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION

A. Insert flashings into reglets to form tight fit. Secure in place with plastic wedges. Pack remaining spaces with lead wool. Seal flashings into reglets with sealant.

B. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.

C. Apply plastic cement compound between metal flashings and felt flashings.

D. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.

E. Secure gutters and downspouts in place using concealed fasteners.

F. Slope gutters 1/8 inch per 1 feet, minimum.

G. Connect downspouts to downspout boots. Grout connection watertight.

END OF SECTION

1

SECTION 08 4126
ALL-GLASS ENTRANCES AND STOREFRONTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. All-glass entrances.

B. All-glass storefronts.

C. Swinging doors.

D. Interior sliding doors.

E. Door Hardware.

1.02 RELATED REQUIREMENTS

A. Section 05 4000 - Cold-Formed Metal Framing: Supplementary supports.

1.03 REFERENCE STANDARDS

A. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2010.

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014.

C. ASTM C1036 - Standard Specification for Flat Glass; 2011e1.

D. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2012.

1.04 SUBMITTALS

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

B. Product Data: Manufacturer's descriptive literature for each component in all-glass entrance assembly.

C. Shop Drawings: Drawings showing layout, dimensions, identification of components, and interface with adjacent construction.
   1. Include field measurements of openings.
   2. Include elevations showing:
      a. Appearance of all-glass entrance layouts.
      b. Locations and identification of manufacturer-supplied door hardware and fittings.
      c. Locations and sizes of cut-outs and drilled holes for other door hardware.
   3. Include details of:
      a. Requirements for support and bracing at openings.
      b. Installation details.
      c. Appearance of manufacturer-supplied door hardware and fittings.
   4. Schedule: Listing of each type component in all-glass entrance assemblies, cross-referenced to shop drawing plans, elevations, hardware and details.

D. Design Data: Design calculations, bearing seal and signature of structural engineer licensed to practice in the State in which the Project is located, documenting compliance of exterior assemblies with wind pressure criteria.

E. Certificates: Contractor's certification that installer of entrance assemblies meets specified qualifications.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Minimum three years of experience installing entrance assemblies similar to those specified in this section.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. All-Glass Entrances and Storefronts:
   1. Avanti Systems USA, Inc: www.avantisystemsusa.com.
   2. C.R. Laurence Co., Inc; CRL Slender Profile Door Rail System: www.crl-arch.com.
   3. Trulite Glass & Aluminum Solutions; Envison: www.trulite.com.

B. Fittings and Hardware:

1. C. R. Laurence Co., Inc; www.crl-arch.com
2. Avanti Systems USA Inc..
3. Substitutions: See Section 01 6000 - Product Requirements.

2.02 ASSEMBLIES

A. Entrances and Storefronts: Factory fabricated assemblies consisting of frameless glass panels fastened with metal structural fittings in configuration indicated on the drawings.
   1. Operational Loads: Designed to withstand door operation under normal traffic without damage, racking, sagging, or deflection.
   2. Prepared for all specified hardware whether specified in this section or not.
   3. Finished metal surfaces protected with strippable film.
   4. Factory assembled to greatest extent practicable; may be disassembled to accommodate shipping constraints.

B. Swinging Door Fittings and Hardware:
   1. Top and bottom pivots concealed in full width rails top and bottom.
   2. Floor Closer.CRL 8300 Series Shallow Depth.Comply with manufacturer's recommendations for closer size, depending upon door size, and anticipated frequency of use.
      a. Non-hold-open closers must comply with ADA Handicap requirements.
      b. Consult manufacturer for closer recommendations on doors over 264 lbs.
   3. Push/pulls: CRL Vertical Floor Locking Ladder Pulls LLP48BS.
   4. Card Reader & Electronic Lock. CRL SDC Hi/Shear Electromagnetic Mortise Mount Shear Lock. (12/24V DC Selection) Mount in top rail of door and head frame. Wire to Card reader in jamb frame of door. Install on glass door where scheduled.
   5. Single Doors: Floor mounted door stop.

C. Interior Top Hung Sliding Door Fittings and Hardware:
   1. Top Track: CRL51 with Softbrake System. 3 3/4 inch highBox channel, designed for support of panels of size and weight required.
   2. Hangers: Overhead mounted twin roller assembly, concealed within top track, with concealed clamps.
   3. Pulls Both Sides: CRL Luguna Series Thru-Glass Pull.
   4. Floor guides. CRL Luguna Series Bottom Floor Guides

2.03 FITTINGS

A. Rail Style Fittings for Swinging Doors and Related Fixed Glazing:
   1. Basis of Design: C.R. Laurence Co., Inc; Wedge-Lock Dry Glaze Door Rail System.
      a. Top Rails: 1 inch high.
      b. Bottom Rails: 1 inch high.
      c. Sidelite Rails: Match door rail sightlines.

B. Track and Hanger Fittings for Top Hung Interior Single-Slide, Bypass, and Bi-Parting Sliding Doors and Related Fixed Glazing:
   1. Basis of Design: C.R. Laurence Co., Inc; CRL51 Series Top Hung Sliding Door System with SoftBrake.

C. Exposed Fittings and Hardware: Stainless steel, Number 4, satin polish finish.

D. Fixed Glazed Panel Fittings: Sufficient to structurally support glazing and doors under specified loads; including but not limited to cover caps for door hardware, glazing mullions, clamp fittings, and panel corner patches.

E. Sidelight Fittings:
   1. Rails: Match profile, material, and finish of rails specified for doors.
   2. Provide top and bottom installation track for sidelite installation.

2.04 MATERIALS

A. Glass: Tempered float glass meeting requirements of ASTM C1036, Type I, Quality Q3, fully tempered in accordance with ASTM C1048, Kind FT, and as follows:
   1. Thickness: 1/2 inch.
   2. Color: Clear, Class 1.
   3. Prepare glazing panels for indicated fittings and hardware before tempering.
   4. Polish edges that will be exposed in finished work to bright flat polish.

5. Temper glass materials horizontally; visible tong marks or tong mark distortions are not permitted.

B. Stainless Steel Components: Conforming to ASTM A666, Type 304.

C. Sealant: One-part silicone sealant, conforming to ASTM C920, clear.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that openings are acceptable.

B. Do not begin installation until substrates and openings have been properly prepared.

C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean substrates thoroughly prior to installation.

B. Prepare substrates using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

A. Installation of cold-formed metal framing for openings is specified in Section 05 4000.

B. Install in accordance with manufacturer's instructions.

C. Tolerances:
1. Horizontal Components and Sight Lines: Not more than 1/8 inch in 10 feet variation from level, non-cumulative.
2. Vertical Components and Sight Lines: Not more than 1/8 inch in 10 feet variation from plumb, non-cumulative.
3. Variation from Plane or Indicated Location: Not more than 1/16 inch.

D. Installation of door hardware not supplied by entrance/storefront manufacturer is specified in Section 08 7100.

3.04 ADJUSTING

A. Adjust doors to operate correctly, without binding to frame, sill, or adjacent doors.

B. Adjust door hardware for smooth operation.

3.05 CLEANING

A. Clean installed work to like-new condition.

3.06 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

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Hardware Sets

SET #01 - Sliding Glass Doors

Doors: 100, 101, 107A, 109B, 111B

1	Cylinder As Required	12E-72 STD OR 1E-74 STD	626	VH01

NOTE: BALANCE OF HARDWARE BY DOOR MFG.

SET #02

Doors: 109A, 111A, 116, 107B

2	Door Pull	1195-6 G-MTG	626	TR
1	Cylinder As Required	12E-72 STD OR 1E-74 STD	626	VH01

NOTE: BALANCE OF HARDWARE BY DOOR MFG.

SET #03 - Storefront Single

Doors: 113, 114, 111C

1	Continuous Hinge	662 UL 95"	AL	ST
1	Exit Device	2403 X 2903C	630	PR
1	Mortise Cylinder	1E-74 STD	626	BE
1	Door Closer	CLD-4551 CS	689	SD
1	Door Stop	1209	626	TR
1	Drop Plate	P45-180D	689	SD

NOTE: BALANCE OF HARDWARE BY DOOR MFG.

SET #04

Doors: 122B

1	Continuous Hinge	662 UL 83"	AL	ST
1	Exit Device	2103 X 4903C 48"	630	PR
1	Electro-mech Lock	45HW-7DEL3H STD C DS RQE	626	BE
1	Door Closer	CLD-4551 CS	689	SD
1	Kick Plate	KO050 10" x 40" B4E C-SUNK HOLES	630	TR
1	Door Stop	1209	626	TR
1	Weatherstrip	303 AV 1 x 42" 2 x 84" Black Brush		PE
1	Raindrip	346 C 46"		PE
1	Door Bottom	345 AV 42"		PE

NOTE: CARD READER, AND POWER SUPPLY BY SECURITY CONTRACTOR

SET #05

Doors: 130, 129

1	Continuous Hinge	662 UL 83"	AL	ST
1	Lockset	45H-7D3H STD	626	BE
1	Door Closer	CLD-4550 HCS	689	SD
1	Kick Plate	KO050 10" x 46" B4E C-SUNK HOLES	630	TR
1	Door Stop	1209	626	TR
1	Weatherstrip	303 AV 1 x 48" 2 x 84"		PE
1	Raindrip	346 C 52"		PE
1	Door Bottom	345 AV 48"		PE

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SET #06

Doors: 122A

2	Hinges	CB179 4 1/2 X 4 1/2	US26D	ST
1	Hinges	CB179 4 1/2 X 4 1/2 58	US26D	ST
1	Electro-mech Lock	45HW-7DEL3H STD C DS RQE	626	BE
1	Door Closer	CLD-4550 STD W/PA BRKT	689	SD
1	Kick Plate	KO050 10" x 40" B4E C-SUNK HOLES	630	TR
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR

NOTE: CARD READER, AND POWER SUPPLY BY SECURITY CONTRACTOR

SET #07

Doors: 125

2	Hinges	CB179 4 1/2 X 4 1/2 NRP	US26D	ST
1	Hinges	CB179 4 1/2 X 4 1/2 NRP 58	US26D	ST
1	Electro-mech Lock	45HW-7DEL3H STD C DS RQE	626	BE
1	Door Closer	CLD-4550 S	689	SD
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR

NOTE: CARD READER, AND POWER SUPPLY BY SECURITY CONTRACTOR

SET #08

Doors: 110, 124, 127

3	Hinges	CB179 4 1/2 X 4 1/2	US26D	ST
1	Lockset	45H-7D3H STD	626	BE
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR

SET #09

Doors: 123

3	Hinges	CB179 4 1/2 X 4 1/2	US26D	ST
1	Lockset	45H-7AB3H STD	626	BE
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR

SET #10

Doors: 104, 105, 106, 128, 103

3	Hinges	CB179 4 1/2 X 4 1/2	US26D	ST
1	Privacy Set	45H-0L3H VIN	626	BE
1	Door Closer	CLD-4550 STD W/PA BRKT	689	SD
1	Kick Plate	KO050 10" x 34" B4E C-SUNK HOLES	630	TR
1	Kick Plate	KO050 4" x 35" B4E C-SUNK HOLES	630	TR
1	Door Stop	1209	626	TR
3	Door Silencers	1229A	GREY	TR

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SET #11

Doors: 134, 135

1	Padlock	11B-722L STD M5	626	BE

SET #12 - fire rated hardware set

Doors: 120

3	Hinges	CB179 4 1/2 X 4 1/2	US26D	ST
1	Lockset	45H-7AB3H STD	626	BE
1	Door Closer	CLD-4550 STD W/PA BRKT	689	SD
1	Kick Plate	KO050 10" x 34" B4E C-SUNK HOLES	630	TR
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR

SET #13

Doors: 108, 119

2	Door Pull	1195-6 G-MTG	626	TR
1	Cylinder As Required	12E-72 STD OR 1E-74 STD	626	VH01

NOTE: BALANCE OF HARDWARE BY DOOR MFG.
NOTE: CARD READER, AND POWER SUPPLY BY SECURITY CONTRACTOR

SECTION 09 6813
TILE CARPETING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Carpet tile, fully adhered.

B. Matching roll carpet for direct glue installation on base.

1.02 RELATED REQUIREMENTS

A. Section 018113 - Sustainable Design Requirements.

B. Section 01 7419 - Construction Waste Management and Disposal: Reclamation/Recycling of new carpet tile scrap.

1.03 REFERENCE STANDARDS

A. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.

B. CRI (CIS) - Carpet Installation Standard; Carpet and Rug Institute; 2009.

C. CRI (GLA) - Green Label Testing Program - Approved Adhesive Products; Carpet and Rug Institute; Current Edition.

D. CRI (GLC) - Green Label Testing Program - Approved Product Categories for Carpet; Carpet and Rug Institute; Current Edition.

1.04 SUBMITTALS

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

B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.

C. Samples: Submit two carpet tiles illustrating color and pattern design for each carpet color selected.

D. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing specified carpet tile with minimum three years documented experience.

B. Installer Qualifications: Company specializing in installing carpet with minimum 5 years experience.

1.06 FIELD CONDITIONS

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. See schedule on the drawings.

B. Other Acceptable Manufacturers:
   1. Substitutions: See Section 01 6000 - Product Requirements.

1

2.02 MATERIALS

A. Carpet Tile : As scheduled on the drawings and and manufactured in one color dye lot.

2.03 ACCESSORIES

A. Edge Strips: Rubber, color as selected.

B. Adhesives: Acceptable to carpet tile manufacturer, compatible with materials being adhered; All flooring elements installed on the building interior must comply with the requirements of IEQ Credit 4.3, LEED 2009 New Construction and Major Renovation..

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that sub-floor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive carpet tile.

C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of adhesive materials to sub-floor surfaces.

D. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for flooring installation by testing for moisture and pH.
   1. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.

3.02 PREPARATION

A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

B. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler.

C. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.

D. Vacuum clean substrate.

3.03 INSTALLATION

A. Starting installation constitutes acceptance of sub-floor conditions.

B. Install carpet tile in accordance with manufacturer's instructions and CRI Carpet Installation Standard.

C. Blend carpet from different cartons to ensure minimal variation in color match.

D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.

E. Lay carpet tile in square pattern, with pile direction parallel to next unit, set parallel to building lines.

F. Locate change of color or pattern between rooms under door centerline.

G. Fully adhere carpet tile to substrate.

H. Adhere roll carpet as base finish up vertical surfaces to form base. Terminate top of base with cap strip.

I. Trim carpet tile neatly at walls and around interruptions.

J. Complete installation of edge strips, concealing exposed edges.

3.04 CLEANING

A. Remove excess adhesive without damage, from floor, base, and wall surfaces.

B. Clean and vacuum carpet surfaces.

END OF SECTION

SECTION 09 8413
FIXED SOUND-ABSORPTIVE PANELS

PART 1 – GENERAL

1.01 SUMMARY

A. Description of Work: Work of this section includes, but is not limited to, the following:
   1. Gypsum board and accessories
   2. Metal studs and furring
   3. Metal suspension systems
   4. Sound-rated construction and accessories
   5. Gypsum board finishing
   6. Trim and accessories

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. See Section 09 22 16 NON-STRUCTURAL METAL FRAMING for gypsum boards.

B. See Section 09 22 26 SUSPENSION SYSTEMS for suspended gypsum ceilings.

C. See Section 09 91 23 INTERIOR PAINTING for gypsum board prime and finish coats.

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's specifications and installation instructions with project conditions and materials clearly identified or detailed for each required system.
B. Shop Drawings
   1. Submit ceiling and/or wall plans drawn to scale prescribed by Architect
      a. Include coordinated penetrations
      b. Include any necessary details or drawings from the manufacturer regarding recommended installation
C. Samples
   1. Submit 12” x 12” manufacturer’s sample of each panel indicated

1.04 SYSTEM REQUIREMENTS

A. Performance Requirements: Fabricate and install systems as indicated but not less than that required to comply with ASTM C754 under the following conditions:
   1. Gypsum board partitions:
      a. Standard systems: Maximum deflection of l/240 of partition height.
      b. Systems to receive water resistant gypsum board or backer board: Maximum deflection of l/360 of partition height.
   3. Interior suspended ceilings and soffits: Maximum deflection of l/360 of distance between supports.
   4. Nonstructural components that are permanently attached to structures and their support attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance to local jurisdiction.
B. Acoustical Ratings: Where sound ratings are indicated, provide materials and application procedures identical to those tested by manufacturer to achieve Noise Reduction Coefficient (NRC) scheduled or indicated in accordance with ASTM C423.
C. VOC Certification of Compliance

1.05 QUALITY ASSURANCE

A. Reference Standards:
   1. Follow manufacturer's printed installation instructions (available online at www.gypsorb.com)
   2. Applicable requirements of ASTM C754 for installation of steel framing.
   3. Install gypsum board in accordance with applicable requirements and recommendations of Gypsum Association GA 216, "Recommended Specifications for the Application and Finishing of Gypsum Board" except for more stringent requirements of manufacturer.
   4. Review installation requirements with manufacturers representative prior to beginning work.

B. Installer Qualifications
   1. Must be experienced in the installation of systems similar to those specified herein.

1.06 DELIVERY, STORAGE AND HANDLING

A. Delivery:
   1. Deliver material to site promptly without undue exposure to weather.
   2. Deliver in manufacturer's unopened containers or bundles, fully identified with name, brand, type and grade.

B. Storage:
   1. Store above ground in dry, ventilated space.
   2. Protect materials from soiling, rusting and damage.
   3. Store on a level surface in surroundings with a similar climate to the room in which the panels are to be located.

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1.07 PROJECT CONDITIONS

A. Environmental Requirements:
   1. Do not install gypsum board until ambient conditions do not exceed 104°F and 70% relative humidity.

PART 2 - PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS

1

A. GypSorb Inc.
   1. Address: 1143 NW 52nd St., Seattle WA, 98107
   2. Telephone: 206-571-5710
   3. Web: www.gypsorb.com
   4. Product: Strata 12-20-35

2.02 PERFORATED GYPSUM BOARD MATERIALS

A. Perforated Gypsum Board:
   1. Edges: Square
   2. Thickness: 12.5 mm [approx. 1/2-inch]
   3. Size:
      a. 1200mm x 2500mm (≈ 47.2" x 98.425")
      b. 1200 mm x 1875mm
   4. Patterns:
      a. Strata 12-20-35

5. Color of non-woven fabric: Black
6. Open Area: 9.8%

1

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates and adjoining construction and conditions under which work is to be installed. Do not proceed with work until unsatisfactory conditions are corrected.

3. 02 GENERAL INSTALLATION REQUIREMENTS

A. Install in accordance with reference standards and manufacturer's recommended instructions.
   a. Confirm proper orientation of boards so pattern is correct

B. Install framing to comply with ASTM C754 and with ASTM C840 requirements that apply to framing, installation instructions and finishing.
   a. Framing must be installed & spaced in accordance w/ manufacturers recommendations of 300mm to 333mm max depending on board size

C. Finishing
   1. Jointing Technique
      a. Seal all edges at joints w/ primer. Use Knauf Uniflot for joints
      b. Mix joint compound according to manufacturer's directions.
      c. Fill joints between boards flush to top of square edge.
      d. Keep joint compound from gypsorb perforations. If perforations are accidentally filled, unblock perforations using punching tool provided by manufacturer.
      e. NOTE: No tape is used on this board.
   2. Finish surface to be Level 4 in accordance with applicable requirements and recommendations of Gypsum Association GA 214, "Recommended Levels of Gypsum Board Finish". This only applies at the joints and screw heads
   4. Sanding
      a. After each of three (3) finishing applications
      b. Remove sanding dust in perforation holes before applying paint
   5. Prime painting
      a. APPLY BY ROLLER ONLY (1/4" nap)
      a. One prime coat
   6. Finish painting
      a. APPLY BY ROLLER ONLY (1/4" nap)
      b. Two finish coats

1

3.03 PROTECTION

A. Correct damage and defects which may telegraph through finish work.

B. Leave work smooth and uniform.

END OF SECTION