

ADDENDUM NO. 01

February 28, 2020

SYCAMORE CANYON SCHOOL – LEARNING RESOURCE CENTER (LRC) – 04-118743

SANTEE SCHOOL DISTRICT

Item No. 1	Specifications
AD1	Division 6

- A. Revise Specification Section 06 41 00 Architectural Wood Casework, part 2.02A.11 to clarify display cases, per the attached AD1-06 41 00.

Item No. 2	Specifications
AD1	Division 7

- A. Replace Specification Section 07 54 23 Thermoplastic Polyolefin (TPO) Membrane Roofing in its entirety, per the attached AD1-07 54 23.

Item No. 3	Specifications
AD1	Division 8

- A. Revise Specification Section 08 43 33 Folding Glass Walls, part 2.01A to show Nanawall SL84 as the basis of design model, per the attached AD1-08 43 33.
- B. Add Specification Section 08 62 23 Tubular Skylights, per the attached AD1-08 62 23.

Item No. 4	Specifications
AD1	Division 9

- A. Revise Specification Section 09 68 13 Tile Carpeting, part 2.01A.1 to add item d. Walk-off mats, per the attached AD1-09 68 13.

Item No. 5	Specifications
AD1	Sheet C1.0

- A. Revise Sheet C1.0, Keynote 21 to read: "Existing Structure to remain. Protect in place."

Item No. 6	Drawings
AD1	Sheet A1.1

- A. Revise Sheet A1.1, Enlarged Site Plan- Demo, remove fencing, clarify shade structure scope and clarify play structure scope, per the attached AD1-A1.1.

Item No. 7	Drawings
AD1	Sheet A3.1

- A. Revise Sheet A1.2, Enlarged Site Plan, to show modified bench wall and added curb, per AD1-A1.2.

Item No. 8	Drawings
AD1	Sheet A3.1

- A. Revise Sheet A3.1, Reflected Ceiling Plan to show new Solatube Skylights in Library Room 2, per attached AD1-A3.1.

Item No. 9	Drawings
AD1	Sheet A4.1

- A. Revise Sheet A4.1, Roof Plan to show new Solatube Skylights, per attached AD1-A4.1.

Item No. 10	Drawings
AD1	Sheet A8.1

- A. Revise Sheet A8.1 Door Schedule, door no. 5B, 6B and 10C to show door glass type 4.
- B. Revise Sheet A8.1, Glazing Notes to add note 4 to read: "Interior opaque glazing: dual insulated glazing- clear laminate with white matte interlayer."

Item No. 11	Drawings
AD1	Sheet A20.0

- A. Revise Sheet A20.0, detail 1 Wall Types to remove fire rated assembly references, per attached AD1-A20.0.

Item No. 12	Drawings
AD1	Sheet A30.2

- A. Revise Sheet A30.2 to add new details 7 and 8, per attached AD1-A30.2.

Item No. 13	Drawings
AD1	Sheet A40.1

A. Revise Sheet A40.1as follows:

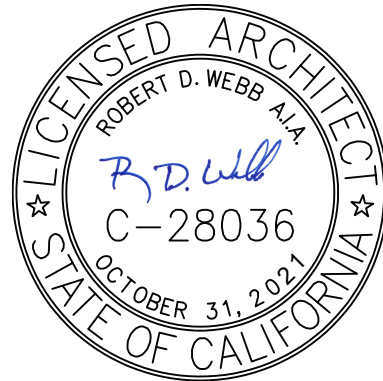
1. Add new details 2 and 4, per attached AD1-A40.1-1.
2. Revise details 15, 20 and 23 to show exterior gyp board over plywood, per AD1-A40.1-2.
3. Clarify details 5, 6, 10, 13 and 21 will have no cants.

END OF ADDENDUM NUMBER 01

StudioWC



Robert D. Webb, AIA, Architect, Senior Vice President



ATTACHMENTS:

Specifications 8.5" x 11"

AD1-06 41 00
AD1-07 54 23
AD1-08 43 33
AD1-08 62 23
AD1-09 68 13

Drawings 8.5" x 11"

AD1-A1.2. Enlarged Site Plan
AD1-A3.1 Reflected Ceiling Plan
AD1-A4.1 Roof Plan

Drawings 11" x 17"

AD1-A1.1 Enlarged Site Plan- Demo
AD1-A20.0 Wall Types and Details
AD1-A30.2 RCP Details
AD1-A40.1-1 Roof Details
AD1-A40.1-2 Roof Details

SECTION AD1-06 41 00

ARCHITECTURAL WOOD CASEWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Furnish and install complete, plastic laminate countertops, laminated plastic casework, shelves, open shelving, fixture work and miscellaneous millwork and hardware required for this work as indicated on the Drawings and that is required, and as specified herein. Includes delivery to rooms, unpacking, setting in place, leveling and fastening to walls and floors as required.
- B. Related Sections:
 - 1. Rough Carpentry; refer to Section 06 10 00.

1.02 REFERENCE STANDARDS

- A. NEMA LD3 - High Pressure Decorative Laminates.
- B. Woodwork Institute, 1ST Edition, 2009 Architectural Woodwork Standards:
- C. Title 24, California Code of Regulations, 2016.

1.03 QUALITY ASSURANCE

- A. Millwork shall be manufactured in accordance with the standards in the latest edition of the Architectural Woodwork Standards of the Woodwork Institute in the grade or grades hereinafter specified or shown on the Drawings.
- B. Before delivery to the job site, the millwork supplier shall issue a Woodwork Institute Certified Compliance Certificate indicating the millwork products he will furnish for this project and certifying that they will fully meet the requirements of the grade or grades specified.
- C. Each elevation of casework shall bear the Certified Compliance label.
- D. Each countertop shall bear the Certified Compliance label.
- E. Operable parts for all accessible casework shall comply with CBC Section 11B-309.

1.04 SUBMITTALS

- A. Before delivery to the jobsite, the millwork supplier shall issue a W.I. Certified Compliance Certificate indicating the millwork products he will furnish for this job, and certifying that they will fully meet the requirements of the grade or grades specified.
- B. Upon completion of the job, submit a Woodwork Institute Certified Compliance Certificate for Installation.
- C. Submit shop drawings and product data under provisions of Section 01 33 00 – Submittal

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Procedures, and in accordance with Woodwork Institute, Architectural Woodwork Standards "Section 1 – Submittals".

- D. Shop drawings shall bear the Woodwork Institute Certified Compliance label on the first page of the Drawings.
- E. Submit minimum 18" wide sample portion of casework unit showing typical construction including representation of all finished hardware proposed for use. Sample unit shall be typical base unit including drawer, door, top, splash and sidesplash, and interior shelf.
- F. Submit literature and data sheets as necessary to establish "formaldehyde free" nature of the proposed materials.
- G. Where required or necessary, submit samples of standard color choices for Architect's selection.
- H. Installed cabinets shall meet the requirements of CBC, 2016, Title 24, Part 2, Chapter 16A.
- I. Submit VOC content of all glues and adhesives.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Materials shall be delivered to the site in undamaged condition, stored in fully covered, well ventilated areas, and protected from extreme changes in temperature and humidity, as recommended by Woodwork Institute, Architectural Woodwork Standards "Section 2 – Care and Storage".
- B. In the event of damage, immediately make necessary repairs or replacements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Grades:
 - 1. Wood (Section 10 Casework, WI)
 - a. Exposed Materials: Premium Grade
 - b. Semi-Exposed Materials: Custom Grade
 - c. Door and Drawer Front Style: Flush Overlay, Style "A"
 - d. Current doors to be W.I. Type 1, with black colored resilient plastic "Tee" on door meeting style only; other sides to have solid banding to match door.
 - 2. Provide plastic covered casework in accordance with Woodwork Institute "Architectural Woodwork Standards", (Section 10 Casework), for Premium Grade. Premium Grade for library shelving, and display cases, except at custodian storage, storage, and food service rooms, where Custom Grade is acceptable.
 - a. Provide scribe mold at junctions with walls and ceilings.

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- b. Provide plywood core construction laminate finish. Medium density fiberboard cores will not be acceptable.
 - c. Provide stainless steel corner guards at all exposed casework corners.
- 3. Construction Style Required: Style A Frameless.
- 4. Construction Type: Type I Multiple self-supporting units, rigidly joined together.
- B. Casework construction shall be entirely of formaldehyde free products. Manufacturer to submit published data sheets for casework materials for Architect's approval. So called "Low-emitting" formaldehyde containing products will not be allowed. Burden of proof rests with the casework manufacturer.
- C. Exposed Materials: Vertical and Horizontal Surfaces (cabinet bodies and wall paneling): Surface material shall be high pressure laminate: 0.028-inch minimum thickness at vertical surfaces conforming to ANSI/NEMA LD-3. Flame spread: 40. Smoke developed: 155. Provide matte finish standard colors by Wilson Art, Formica or Nevamar; color to be selected by Architect.
- D. Semi-Exposed Materials: High pressure laminate as specified for exposed materials. Color at top, bottom and front edge of shelves to match casework laminate, typical for all casework, except as follows: Custodial, and storage rooms with semi-exposed casework surfaces shall receive low pressure decorative Melamine overlay. Masonite Class I made with formaldehyde free substrate, or approved equivalent; white in color at Custodial and storage rooms only. Top and bottom of shelves shall match exposed materials in material and color. Front edge of all shelves to match casework laminate.
- E. Door and Drawer Front Style: Flush overlay with high pressure laminate, per exposed materials, with 3mm thick PVC edge banding on edges, 1mm thick PVC edge banding on case bodies. All edge banding shall be machine applied. Edge banding at outside edges shall be "eased" so as to eliminate sharp edges. Submit manufacturer's standard edge banding colors for Architect's selection.
- F. Exposed Wood: Species —, veneer cut-rotary
- G. Laminated Plastic Countertops and Splashes:
 - 1. Surface material shall be high pressure, low luster, laminated plastic conforming to NEMA LD-3, 0.042-inch thickness post forming grade for tops and 0.028-inch thickness for wall paneling.
 - 2. Laminated plastic countertops and splashes shall be Woodwork Institute Premium Grade. Scribe tops and splashes to walls. There shall be no joints between walls and countertops or splashes larger than 1/16". Caulk all gaps with caulk to match color of countertop, or as approved by Architect.
 - 3. Provide splashes at all countertops. Provide end splashes with square butt joints. Back splash shall have a rolled edge at the top with an integral cove at the junction of the countertop and splash. Front edge of all countertops shall be a rolled "waterfall" edge, self edge countertops are unacceptable. Provide a non-drip bullnose edge at all countertops with sinks.
- H. Fasteners:
 - 1. Screws: Straight shank double thread particle board screws.

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- I. Glues: Type 3 adhesives throughout with less than 20 g/L VOC content.

2.02 ACCESSORIES

- A. Finish Hardware: Provide all required finish hardware for casework in accordance with the Architectural Woodwork Standards, 1st Edition, except as modified below:
 1. Hinges: Screwed in, fully concealed self-closing with 120-degree opening angle. Blum European Style Hinge, or equal. Heavy Duty.
 2. Pulls: U-shaped metal. Amerock Solid Brass – 4” AME 19549 dull chrome wire pulls. Pulls to be glued and screwed in place.
 3. Catches: Magnetic, Amerock 3473PT, and IVES #2 Elbow Catch, or equal for all doors; for inactive leaf of pairs of doors with locks. Omit where self-closing hinge provides latch function. Elbow catches to be installed maximum 1-1/2 inch from front edge of door.
 4. Drawer Slides: Provide 100 pound capacity, full extension slides, Accuride model number C3017 or equivalent.
 5. Keyboard Drawer Slide: Accuride variable height keyboard slide with 3/4-inch plastic laminate tray, model number 2109, 20 inches long. Provide one (1) keyboard slide and tray at each knee space, typical.
 6. File Drawer Slides: Heavy duty, full extension, three section slide, .63-inch slide space, 200-pound load capacity, Accuride model number C3640 or equivalent.
 7. Shelf Clip: 32mm system, earthquake proof shelf clip in accordance with ANSI/BHMA A156.9.
 8. Guides for Sliding Glass Cabinet Doors: KV P1092 or equal. Locks for sliding glass doors: KV #965 CHR.
 9. Door and Drawer Locks: Olympus Lock series 500 DR and 600 DW. Provide with lip or escutcheon to completely cover hole in casework. Color: chrome finish. All doors and drawers shall be provided with locks. Provide two (2) keys for each room with casework. Key cabinets in each room alike, each room different.
 - a. Provide locks at all casework doors and drawers. Provide two (2) keys in each room alike; each room different and Master keyed.
 - b. Metal Strike Plates: Provide Cabinet door and drawer locks with metal strike plates to protect against particle board rip-out.
 10. Countertop Grommets: Doug Mockett MM4, 2-1/2-inches clear diameter black plastic with snap-on cover, provide one grommet per knee space compartment. Grommet to be 3/4-inch deep to completely conceal raw inside edges of countertop hole. Submit sample for approval. Provide trim grommet for computer paper access-slot where shown on Drawings. Grommets to be located in field by Architect.
 11. *Display Cases: Complete assembly for double rail and stile 1/4-inch clear tempered glass doors:*

- a. *Standards and Brackets: Knappe & Vogt #80, and 12" deep bracket #180.*
 - b. *Locks: KV #986 CHR,*
 - c. *Pulls: EPC-GP17 – stainless steel*
 - d. *Glass Shelves: 5/16-inch tinted light bronze float plate, tempered.*
 - e. *Anodized Aluminum Extrusions.*
 - f. *Hinged Doors*
 - g. *Tackable Back Panel*
 - h. *Fluorescent Down Lighting*
- B. Cabinet hardware shall be installed by casework fabricator.
- C. Products:
- 1. Polyvision
 - 2. Claridge
 - 3. ABC School Equipment

2.03 FABRICATION

- A. General: Fabricate the casework to the shape indicated on the Drawings and in strict accordance with the Woodwork Institute grade specified.
- B. Field Verification: Contractor shall field verify finish dimensions prior to fabrication of casework.
- C. Compliance: The Architect reserves the right to require an inspection by a representative of the Woodwork Institute, to determine whether fabrication and installation was in accordance with the specified standard.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Conform to requirements of Woodwork Institute "Architectural Woodwork Standards," for casework construction details.

3.02 INSTALLATION

- A. Woodwork Institute Certified Installation is required. Install work in this section as specified in Woodwork Institute "Architectural Woodwork Standards" 1ST Edition.
- B. All components of casework which are notched, chipped, dinged, scratched, scuffed, or otherwise damaged or marred during course of construction shall be replaced with a matching "like new" component, to the satisfaction of the Architect. Components which are incorrectly cut or drilled shall not be used.

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- C. All cabinet backs shall be fully trapped (dadoed & glued).
- D. Joints between countertop sections shall not be installed over knee spaces or other open span.

3.03 CLEANING

- A. Upon completion of installation *in each room*, remove debris, sawdust, excess materials, packages, equipment and trash which may have accumulated from this work. **DO NOT ALLOW SAWDUST OR DEBRIS TO FALL ON CARPET SURFACES.** Casework installer shall clean any sawdust on carpets to the satisfaction of the Architect.
- B. Cabinets and adjacent surfaces shall be left clean and acceptable for final approval.
- C. Contractor to provide a copy of cleaning and maintenance recommendations for countertops and casework to the underneath side of furniture, in addition to requirements listed above and outlined in Section 01 78 23 – Operating and Maintenance Data.

3.04 WARRANTY

- A. Provide ten (10) year warranty for material defects from date of substantial completion. Provide two (2) year warrant against installation defects.

END OF SECTION

SECTION AD1-07 54 23

THERMOPLASTIC POLYOLEFIN (TPO) MEMBRANE ROOFING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. *Adhered TPO membrane roofing system.*
- B. *Cover board.*

1.02 RELATED SECTIONS

- A. *Division 06 Section "Miscellaneous Rough Carpentry" for wood nailers, cants, curbs, and blocking and for wood-based, structural-use roof deck panels.*
- B. *Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counter flashings.*
- C. *Division 22 Section "Storm Drainage Piping Specialties" for roof drains.*

1.03 REFERENCES

- A. *Roofing Terminology: Refer to the following publications for definitions of roofing work related terms in this Section:*
 - 1. *ASTM D 1079 "Standard Terminology Relating to Roofing and Waterproofing."*
 - 2. *Glossary of NRCA's "The NRCA Roofing and Waterproofing Manual."*
 - 3. *Roof Consultants Institute "Glossary of Building Envelope Terms."*
- B. *Sheet Metal Terminology and Techniques: SMACNA "Architectural Sheet Metal Manual."*

1.04 DESIGN CRITERIA

- A. *General: Installed roofing membrane system shall remain watertight; and resist specified wind uplift pressures, thermally induced movement, and exposure to weather without failure.*
- B. *Material Compatibility: Roofing materials shall be compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.*
- C. *Installer must comply with current code requirements based on authority having jurisdiction.*

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- D. *Wind Uplift Performance: Roofing system shall be identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist wind uplift pressure calculated in accordance with ASCE 7.*
- E. *Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.*
 - 1. *Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.*

1.05 SUBMITTALS

- A. *Product Data: Manufacturer's data sheets for each product to be provided.*
- B. *Detail Drawings: Provide roofing system plans, elevations, sections, details, and details of attachment to other Work, including:*
 - 1. *Base flashings and membrane terminations.*
 - 2. *Crickets, saddles, and tapered edge strips, including slopes.*
 - 3. *Insulation fastening and adhesive patterns.*
- C. *Installer Certificates: Signed by Roofing Systems Manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.*
- D. *Maintenance Data: Refer to Manufacturer's latest published documents.*
- E. *Guarantees: Provide manufacturer's current guarantee specimen.*
- F. *Prior to roofing system installation, roofing sub-contractor shall provide a copy of the Guarantee Application Confirmation document issued by Johns Manville Roofing Systems indicating that the project has been reviewed for eligibility to receive the specified guarantee and registered.*
 - 1. *StudioWC must be listed as the Specifier/Consultant of record in the appropriate fields on the Guarantee Application Confirmation.*

1.06 QUALITY ASSURANCE

- A. *Installer Qualifications: Qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive the specified manufacturer's guarantee.*
- B. *Manufacturer Qualifications: Qualified manufacturer that has UL listing for roofing system identical to that used for this Project.*

- C. *Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 329.*
- D. *Test Reports:*
 - 1. *Roof drain and leader test or submit plumber's verification.*
- E. *Source Limitations: Obtain all components from the single source roofing manufacturer guaranteeing the roofing system. All products used in the system must be labeled by the single source roofing manufacturer issuing the guarantee.*

1.07 DELIVERY, STORAGE, AND HANDLING

- A. *Deliver roofing materials in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.*
- B. *Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.*
- C. *Protect roof insulation-coverboard materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.*
- D. *Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.*

1.08 PROJECT CONDITIONS

- A. *Weather Limitations: Proceed with installation only when current and forecasted weather conditions permit roofing system to be installed in accordance with manufacturer's written instructions and guarantee requirements.*

1.09 GUARANTEE

- A. *Provide manufacturer's system guarantee equal to Johns Manville's Peak Advantage No Dollar Limit Roofing System Guarantee.*
 - 1. *Single-Source special guarantee includes roofing membrane, base flashings, roofing membrane accessories, roof insulation, fasteners, cover board, walkway products, and other single-source components of roofing system marketed by the manufacturer.*
 - 2. *Guarantee Period: 20 years from date of Substantial Completion.*
- B. *Installer's Guarantee: Submit roofing Installer's guarantee, including all components of roofing system for the following guarantee period:*

1. *Guarantee Period: Two years from date of Substantial Completion.*
- C. *Existing Guarantees: Guarantees on existing building elements should not be affected by scope of work.*
1. *Installer is responsible for coordinating with building owner's representative to verify compliance.*

PART 2 PRODUCTS

2.01 THERMOPLASTIC POLYOLEFIN ROOFING MEMBRANE - TPO

- A. *Fabric-Reinforced Thermoplastic Polyolefin Sheet: ASTM D 6878, uniform, flexible sheet formed from a thermoplastic polyolefin, internally fabric or scrim reinforced. Basis of Design: [JM TPO](#) or equal.*
1. *Membrane Thickness: 60 mils, nominal*
 2. *Exposed Face Color: **White or Tan at Owners Direction***

2.02 AUXILIARY Roofing Materials – Single Ply

- A. *General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.*
1. *Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.*
- B. *Sheet Flashing: Manufacturer's internally reinforced or scrim reinforced, smooth backed membrane with same thickness and color as sheet membrane.*
- C. *Bonding Adhesive: Manufacturer's standard water-based bonding adhesive for membrane, and Spray Applied solvent-based bonding adhesive for base flashings. Basis of Design: [JM TPO Water Based Membrane Adhesive](#), JM All Seasons Adhesive, or equal.*
- D. *Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, with anchors.*
- E. *Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.*
- F. *Miscellaneous Accessories: Provide pourable sealers, primers, preformed cone and vent sheet flashings, preformed inside and*

outside corner sheet flashings, T-joint covers, cover strips, and other accessories required for full installation.

2.03 AUXILIARY ROOFING SYSTEM COMPONENTS

- A. *Coping System: Manufacturer's factory fabricated coping consisting of a base piece and a snap-on cap as specified in 07 62 00.*
- B. *Metal Flashing Sheet: Metal flashing sheet is specified in Division 07 Section "Sheet Metal Flashing and Trim."*

2.04 WALKWAYS AND SAFETY STRIPS

- A. *Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads sourced from membrane roofing system manufacturer.*

2.05 COVER BOARD

- A. *High-Density Polyisocyanurate: ASTM C 1289, Type II, Class 4, Grade 1, High-density Polyisocyanurate technology bonded in-line to inorganic coated glass facers with greater than 100 lbs. of compressive strength. Basis of Design: [ProtectoR HD](#), or equal*
 - 1. *Thickness: 1/2 inch (13 mm)*
 - 2. *R-value: 2.5*
- B. *Gypsum Board: ASTM C 1177, Heavy duty coated glass-mat facer, water-resistant gypsum substrate for fully adhered roof applications, 1/4 inch thick. Basis of Design: [JM DEXcell FA Glass Mat Roof Board](#), or equal*
- C. *Gypsum Board: ASTM C 1278, non-faced, gypsum and cellulose fiber substrate, 1/4 inch thick. Basis of Design: [JM Securock Gypsum-Fiber Roof Board](#), or equal*

2.06 TAPERED INSULATION

- A. *Tapered Insulation as needed, for crickets: ASTM C 1289, Type II, Class 1, Grade 2 (20 psi), provide factory-tapered insulation boards fabricated as needed for crickets.*

2.07 INSULATION ACCESSORIES

- A. *General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.*
- B. *Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening roof insulation to substrate, and furnished by roofing system manufacturer.*

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- C. *Urethane Adhesive: Manufacturer's two component polyurethane adhesive formulated to adhere insulation to substrate.*
- D. *Wood Nailer Strips: Comply with requirements in Division 06 Section "Miscellaneous Rough Carpentry."*

PART 3 EXECUTION

3.01 EXAMINATION

- A. *Examine substrates, areas, and conditions for compliance with the requirements affecting performance of roofing system.*
 - 1. *General:*
 - a. *Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.*
 - b. *Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.*
 - 2. *Wood Decks:*
 - a. *Verify that wood decking is visibly dry and free of moisture according to manufacturer's approved method.*
 - b. *Verify that wood has ability to provide minimum fastener pull-out resistance.*
 - 1) *Provide documentation of pull out resistance values using manufacturer's approved procedures.*
 - 3. *Ensure general rigidity and proper slope for drainage.*
 - 4. *Verify that deck is securely fastened with no projecting fasteners and with no adjacent units more than 1/16 inch out of plane relative to adjoining deck.*
- B. *Unacceptable panels should be brought to the attention of the General Contractor and Project Owner's Representative and must be corrected prior to installation of roofing system.*
- C. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.02 PREPARATION

- A. *Clean and remove from substrate sharp projections, dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.*

- B. *Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.*
- C. *If applicable, prime surfaces as required by roofing manufacturer and allow primer to dry.*
- D. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.03 CRICKET INSULATION INSTALLATION

- A. *Coordinate installation of roof system components so insulation and cover board are not exposed to precipitation or left exposed at the end of the workday.*
- B. *Comply with roofing system manufacturer's written instructions for installation of roof insulation and cover board.*
- C. *Install tapered insulation as necessary to direct water around curbs that are 2 foot or wider.*
- D. *Trim surface of insulation boards where necessary so completed surface is flush and does not restrict flow of water.*
- E. *Loose Laid Insulation with Mechanically Fastened Coverboard: Loose lay insulation with staggered joints*
- F. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.04 COVER BOARD INSTALLATION

- A. *Coordinate installing membrane roofing system components so cover board is not exposed to precipitation or left exposed at the end of the workday.*
- B. *Comply with membrane roofing system manufacturer's written instructions for installing roof cover board.*
- C. *Install cover board with long joints in a continuous straight line. Joints should be staggered between rows, abutting edges and ends per manufacturer's written instructions. Fill gaps exceeding 1/4 inch (6 mm) with cover board.*
 - 1. *Cut and fit cover board within 1/4 inch (6 mm) of nailers, projections, and penetrations.*
- D. *Trim surface of cover board where necessary at roof drains so completed surface is flush and does not restrict flow of water.*
 - 1. *Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.*

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- E. *Mechanically Fastened Cover Board: Install cover board and secure to deck using mechanical fasteners designed and sized for fastening specified cover board to deck type.*
 - 1. *Fasten to resist uplift pressure at corners, perimeter, and field of roof.*
- F. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.05 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. *Install roofing membrane in accordance with roofing system manufacturer's written instructions, applicable recommendations of the roofing manufacturer and requirements in this Section.*
- B. *Cooperate with testing and inspecting agencies engaged or required to perform services for installing roofing system.*
- C. *Coordinate installing roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is imminent.*
 - 1. *Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation.*
 - 2. *Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.*
 - 3. *Remove and discard temporary seals before beginning work on adjoining roofing.*
- D. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.06 ADHERED ROOFING MEMBRANE INSTALLATION

- A. *Install roofing membrane over area to receive roofing in accordance with membrane roofing system manufacturer's written instructions.*
 - 1. *Unroll roofing membrane and allow to relax before installing.*
 - 2. *Install sheet in accordance with roofing system manufacturer's written instructions.*
- B. *Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.*
- C. *Bonding Adhesive: Apply water-based bonding adhesive to substrate at rate required by manufacturer and install roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.*

- D. *Mechanically fasten roofing membrane securely at terminations, penetrations, and perimeter of roofing.*
- E. *Apply roofing membrane with side laps shingled with roof slope, where possible.*
- F. *Seams: Clean seam areas, overlap roofing membrane, and hot-air weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.*
 - 1. *Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roofing membrane.*
 - 2. *Verify field strength of seams a minimum of twice daily and repair seam sample areas.*
 - a. *Remove and repair any unsatisfactory sections before proceeding with installation.*
 - 3. *Repair tears, voids, and incorrectly lapped seams in roofing membrane that do not meet requirements.*
- G. *Spread sealant or mastic bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.*
- H. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.07 BASE FLASHING INSTALLATION

- A. *Install sheet flashings and preformed flashing accessories and adhere to substrates per membrane roofing system manufacturer's written instructions.*
- B. *Apply spray-applied solvent-based bonding adhesive following manufacturer's installation requirements. Do not apply bonding adhesive to seam area of flashing.*
- C. *Flash penetrations and field-formed inside and outside corners per manufacturer's installation instructions.*
- D. *Clean seam areas and overlap and firmly roll sheet flashings into the adhesive. Weld side and end laps to ensure a watertight seam installation.*
- E. *Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.*
- F. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.08 WALKWAY INSTALLATION

- A. *Flexible Walkways: Install walkway products in locations indicated. Heat weld and adhere walkway products to substrate according to roofing system manufacturer's written instructions.*
- B. *Proceed with installation only after unsatisfactory conditions have been corrected.*

3.09 FIELD QUALITY CONTROL

- A. *Testing Agency: Owner may engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test reports.*
- B. *Final Roof Inspection: Arrange for roofing system manufacturer's Field Technical Representative to inspect roofing installation on completion and submit report to Architect.*
 - 1. *Notify Architect and Owner 48 hours in advance of date and time of inspection.*
- C. *Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with specified requirements.*
- D. *Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.*

3.10 PROTECTION AND CLEANING

- A. *Protect roofing system from damage and wear during remainder of construction period.*
- B. *Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.*
- C. *Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.*

END OF SECTION 07 54 23

SECTION AD1-08 43 33

FOLDING GLASS WALLS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes furnishing and installing a top-hung sliding-folding aluminum-framed glass door storefront system that includes:
 - 1. Aluminum frame
 - 2. Threshold
 - 3. Panels
 - 4. Sliding-folding and locking hardware
 - 5. Weather-stripping
 - 6. Glass and glazing
 - 7. Insect screen
 - 8. Accessories as required for a complete working installation.
 - 9. Glass swinging door in each assembly with hardware per hardware schedule.
 - 10. Sawcut and demolition of existing concrete for installation of flush threshold. See attached detail.

- B. Related Documents and Sections: Contractor to examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section.
 - 2. Section 06 10 00, Rough Carpentry: Wood framing R.O. and blocking.
 - 3. Section 07 62 00, Sheet Metal Flashing and Trim: Flashing and other sheet metal work.
 - 4. Section 07 92 00, Joint Sealants

1.02 REFERENCES

- A. Reference Standards in accordance with Division 01 and current editions from the following:
 - 1. AAMA. American Architectural Manufacturers Association; www.aamanet.org
 - a. AAMA 503, Voluntary Specification for Field Testing of Newly Installed Storefronts, Curtain Walls, and Sloped Glazing Systems
 - b. AAMA 611, Voluntary Specification for Anodized Architectural Aluminum
 - c. AAMA 920, Operation / Cycling Performance

- d. AAMA 1303.5, Voluntary Specification for Forced Entry Resistant Aluminum Sliding Glass Doors
 - e. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels
 - f. AAMA 2605, Voluntary Specifications, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels
2. ANSI. American National Standards Institute; www.ansi.org
- a. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used In Buildings
3. ASTM. ASTM International; www.astm.org
- a. ASTM C1036, Standard Specification for Flat Glass
 - b. ASTM C1048, Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
 - c. ASTM E283, Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - d. ASTM E330, Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - e. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
 - f. ASTM E413, Classification for Rating Sound Insulation
 - g. ASTM E547, Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
 - h. ASTM E1332, Standard Classification for Rating Outdoor-Indoor Sound Attenuation
4. CPSC. Consumer Product Safety Commission; www.cpsc.gov
- a. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials
5. NFRC. National Fenestration Rating Council; www.nfrc.org
- a. NFRC 100, Procedure for Determining Fenestration Product U-factors

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate Folding Glass Storefront system and framing R.O.
- B. Preinstallation Meetings: See Section 01 33 00.

1.04 SUBMITTALS

- A. For Contractor submittal procedures see Section 01 33 00.
- B. Product Data: Submit manufacturer's printed product literature for each Folding Glass Storefront system to be incorporated into the Work. Show performance test results and details of construction relative to materials, dimensions of individual components, profiles and colors.
- C. Shop Drawings: Indicate Folding Glass Storefront system component sizes, dimensions and framing R.O., configuration, swing panels, direction of swing, stacking layout, typical head jamb, side jambs and sill details, type of glazing material, handle height and field measurements.
- D. Manufacturers' Instructions: Submit manufacturer's installation instructions.
- E. Operation and Maintenance Data: Submit Owner's Manual from manufacturer. Identify with project name, location and completion date, and type and size of unit installed.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer capable of providing complete, precision built, engineered, pre-fitted units with a minimum twenty-five (25) years' experience in the sale of folding-sliding door systems for large openings in the North American market.
- B. Installer Qualifications: Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least three (3) projects of similar scale and complexity successfully completed in the last three (3) years.
 - 1. Installer to be trained and certified by manufacturer.
- C. Single Source Responsibility: Furnish Folding Glass Storefront system materials from one manufacturer for entire Project.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's instructions and recommendations, Section 01 60 00 requirements, and as follows:
 - 1. Deliver materials to job site in sealed, unopened cartons or crates.
 - a. Upon receipt, inspect the shipment to ensure it is complete, in good condition and meets project requirements.
 - 2. Store material under cover in a clean and dry location, protecting units against weather and defacement or damage from construction activities, especially to the edges of panels.

1.07 FIELD CONDITIONS

- A. Field Measurements: Contractor to field verify dimensions of rough openings (R.O.) and threshold depressions to receive sill. Mark field measurements on shop drawing submittal.

1.08 WARRANTY

- A. Manufacturer Warranty: Provide Folding Glass Storefront system manufacturer's standard limited warranty as per manufacturer's published warranty document in

force at time of purchase, subject to change, against defects in materials and workmanship.

1. Warranty Period beginning with the earliest of 120 days from Date of Delivery or Date of Substantial Completion:
 - a. Rollers and Glass Seal Failure: Ten (10) years
 - b. All Other Components Except Screens: Ten (10) years
 - 1). Exception: Five (5) years if NOT installed by manufacturer's certified trained installer.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Basis-of-Design Product by Manufacturer: *NanaWall SL84* by NANA WALL SYSTEMS, INC. (www.nanawall.com), (800) 873-5673. Email: info@nanawall.com, or equal.
 - a. Document 00 43 25, Substitution Request Form (During Procurement), or
 - b. Document 00 63 25, Substitution Request Form (During Construction)

2.02 PERFORMANCE / DESIGN CRITERIA

- A. Performance Criteria (Lab Tested):
 1. Air Infiltration (ASTM E283) - Flush Sill:
 - a. 0.25 cfm/ft² (1.28 L/s/m²) at a static air pressure difference: of 1.57 psf (75 Pa)
 - b. 0.78 cfm/ft² (6.66 L/s/m²) at 6.24 psf (300 Pa)
 2. Forced Entry (AAMA 1303.5 and AAMA CAWM 300): Meets requirements.
 3. Swing Panel - Operation / Cycling Performance (AAMA 920): 500,000 cycles with 100 U-factor rated.
 - a. For gasketed NanaWall glass wall assemblies with glass units testing at STC 35 or higher.
 5. LEED v4 for Building Design and Construction (BD&C)
 - a. EAc2: NanaWall systems using low U-Value designed double or triple IGU and thermally broken frames can provide significant energy performance.
 - b. MRc1: NanaWall can be easily disassembled for salvage and reuse.
 - c. EQc7: NanaWall glass wall assembly borrowed light brings daylight deeper into the floor plate.

- d. EQc8: NanaWall glass wall assemblies provide direct outdoor lines of sight.
- e. EQc9: NanaWall glass wall assemblies can contribute with system acoustic ratings of 31 dB up to 38 dB reductions.

B. Design Criteria:

- 1. Sizes and Configurations: As indicated by the Drawings for selected number and size of panels, location of swing panels, and location of tracks and stacking bays.
- 2. Unit Operation: Adjustable sliding and folding hardware with top and bottom tracks;
 - a. Inswing type with 90 degree fold, except where stacked locations are shown greater than 90 degrees.
- 3. Panel Configuration:
 - a. Straight
 - b. 90° angle turn
 - c. 135° angle turn
- 4. Stack Storage Configuration:
 - a. Inside
 - b. Foldflat® against Wall – where shown.
- 5. Mounting Type: Top hung
- 6. Panel Type: Hinged
 - a. Primary swing panel of paired swing panels, looking from inside, to be on the left or right based on location of the wall shown on plans.
 - b. Entry/Egress panel hinged to side jamb as shown on plans.
- 7. Panel Pairing Configuration: Drawings show number of panels. Submit recommended pairing combinations, including integral swing egress door.

2.03 MATERIALS

- A. Sliding-Folding Glass Storefront Description: Monumental top-hung system designed for straight runs, segmented angle changes, center pivot, and capable of folding flat against adjacent walls. Manufacturer's standard frame and panel profiles, with head and floor tracks, side jambs and panels with dimensions as shown on Drawings.
 - 1. Panels:
 - a. Single lite.
 - 2. Panel Size (W x H): As indicated on plans
 - 3. Rail Depth: 1-3/4 inch (45 mm)
 - 4. Head Width: 4-7/8 inch (124 mm)
 - 5. Head and Jamb Rail Width: 2-1/8 inch (53 mm)

6. Bottom Rail Width:
 - a. 2-1/16 inch (53 mm) for Flush Sill
 - b. Manufacturer's standard kickplate with 12" height at egress door only where indicated on plans.
 7. Aluminum Extrusion: AlMgSi0.5 alloy, 6063-T5
 - a. Thickness: 0.078 inch (2.0 mm) nominal
 8. Aluminum Finish (including head track covers):
 - a. Anodized (AAMA 611):
 - 1). Clear
- B. Glass and Glazing:
1. Safety Glazing: In compliance with ANSI Z97.1 and CPSC 16CFR 1201.
 - a. Glass Acoustical Performance (DIN 52210-3,4): Rw (STC) 31; 3/4 inch (20 mm) double IGU, air-filled, tempered glass
 - b. Manufacturer's tempered glass lites in double insulated glazing units, dry glazed with glass stops on the inside.
 - 1). Double IGU: 3/4 inch (20 mm) thick - Air filled with Glass Spacers: Manufacturer's standard gray finish; with capillary tubes.
 - c. Glass Treatment: tempered
 - 1). Standard
- C. Locking Hardware and Handles:
1. Main Entry Panel for Models WITH Swing Panels: Provide field installed panic device on the inside and manufacturer's standard lever handles on the outside. Provide a lockset with a lockable latch and multi-point locking with a dead bolt and rods at the top and bottom on primary panel only.
 - a. Rods to be concealed and not edge mounted.
 - b. After turn of key or thumbturn, depression of handles withdraws latch.
 - c. Lifting of handles engages rods and turn of key or thumb turn engages deadbolt and operates lock.
 - d. Lever Handle - Finish:
 - 1). Brushed satin stainless steel
 - e. Locking:
 - 1). Standard profile cylinder – refer to 08 71 00
 2. Main Entry Panel for Models WITHOUT Swing Panels: Provide manufacturer's standard L-shaped handle on the inside, flat handle on

the outside and lock set with profile cylinder Operation of lock set is by turn of key from the outside and with a thumbturn from the inside with a two point locking hardware operated by 180° turn of the handle.

a. L-shaped handles – Finish:

1.) Brushed stainless steel

3. Handle Height: 41-3/8 inch (105 cm) centered from bottom of panel or as otherwise indicated.
4. Aluminum locking rods with standard fiberglass reinforced polyamide end caps at the top and bottom. Rods to have a stroke of 15/16 inch (24 mm).
5. Additional profile cylinders to be keyed differently.

D. Sliding- Folding Hardware: Provide manufacturer's standard combination sliding and folding hardware with top and bottom tracks.

1. For each pair of folding panels, provide independent cardanic suspension for four (4) wheeled rollers coated with fiberglass reinforced polyamide upper running carriage and lower guide carriage.
2. Swing Panel Hinges:
 - a. Zinc die cast with finish closest match to finish of frame and panels and stainless steel security hinge pins with set-screws.
 3. Adjustment: Provide 1/16 inch (1.5 mm) in width per hinge adjustments without removing panels from tracks and without needing to remove panels from tracks.
 - a. Standard flush fill
 - b. Finish:
 - 1). Clear anodized finish.
 - c. Cover plate over sill NOT acceptable.

E. Weatherstripping: Manufacturer's double layer EPDM between panels, EPDM gasket and Q-Ion gasket, or brush seal between panel and frame, or brush seals with a two-layer fiberglass reinforced polyamide fin attached at both inner and outer edge of bottom of door panels with a recessed sill or on frame for sealing between panels and between panel and frame.

F. Fasteners: Stainless steel screws for connecting frame components.

2.04 FABRICATION

A. Extruded aluminum frame and panel profiles, corner connectors and hinges, sliding and folding hardware, locking hardware and handles, glass and glazing and weatherstripping components needed to construct a folding glass wall.

1. Each unit factory pre-assembled and shipped with all components and installation instructions.
2. Exposed work to be carefully matched to produce continuity of line and design with all joints.
3. No raw edges visible at joints.

2.05 ACCESSORIES

- A. Provide sidelights, transoms, corner posts, or single or double doors as indicated.
 - 1. equivalent subject to project requirements.
 - 2. Finish - Aluminum Top Track, Side Jambs and Vertical Struts:
 - a. Clear anodized
 - 3. equivalent subject to project requirements.
 - 4. Finish - Aluminum Top Track, Side Jambs and Vertical Struts:
 - a. Clear anodized

2.06 EXAMINATION

- A. Examination and Acceptance of Conditions as follows:
 - 1. Carefully examine rough openings with Installer present, for compliance with requirements affecting Work performance.
 - a. Examine surfaces of openings and verify dimensions; verify rough openings are level, plumb, and square with no unevenness, bowing, or bumps on the floor; and other conditions as required by the manufacturer to receive Work.
 - b. Verify the structural integrity of the header for deflection with live and dead loads limited to the lesser of $L/720$ of the span or 1/4 inch (6 mm). Provide structural support for lateral loads, and both wind load and eccentric load when the panels are stacked open.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

2.07 INSTALLATION

- A. General: Install Folding Glass Storefront system in accordance with the Drawings, approved submittals, manufacturer's recommendations and installation instructions, and as follows:
 - 1. Properly flash, waterproof and seal around opening perimeter.
 - 2. Securely attach anchorage devices to rigidly fit frame in place, level, straight, plumb and square. Install frame in proper elevation, plane and location, and in proper alignment with other work
 - 3. When lower track is designed to drain, provide connections to allow for drainage.
 - 4. Install panels, handles, lockset, screens and other accessories in accordance with manufacturer's recommendations and instructions.

2.08 FIELD QUALITY CONTROL

- A. Field Tests and Inspections per Section 01 40 00 of the following:
 - 1. Verify the Folding Glass Storefront system operates and functions properly. Adjust hardware for proper operation.

- B. Non-Conforming Work: Repair or replace non-conforming work as directed by the Architect; see General and Supplementary Conditions, and Division 01, General Requirements.

2.09 CLEANING AND PROTECTION

- A. Keep units closed and protect Folding Glass Storefront installation against damage from construction activities.
- B. Remove protective coatings and use manufacturer recommended methods to clean exposed surfaces.

END OF SECTION

SECTION AD1-08 62 23

TUBULAR SKYLIGHTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. *Tubular daylighting system, consisting of roof dome, reflective tube, and diffuser assembly; configuration as indicated on the drawings.*
- B. *Accessories.*

1.02 RELATED SECTIONS

- A. *Section 07 54 23 – Thermoplastic Polyefin (TPO) Membrane Roofing; for flashing of skylight base.*
- B. *Section 23 20 00 – HVAC Systems; for vent duct and connections.*

1.03 REFERENCES

- A. *ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.*
- B. *ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.*
- C. *ASTM A 463/A 463M - Standard Specification for Steel Sheet, Aluminum Coated, by the Hot Dip Process.*
- D. *ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized), by the Hot Dip Process.*
- E. *ASTM A 792/A 792M – Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.*
- F. *ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.*
- G. *ASTM E 283 - Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.*
- H. *ASTM E 308 - Standard Practice for Computing the Colors of Objects by Using the CIE System.*
- I. *ASTM E 330 - Structural Performance of Exterior Windows, Curtain Walls and Doors.*
- J. *ASTM E 547 - Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain walls by Cyclic Air Pressure Difference.*
- K. *ASTM E 1886 - Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials.*
- L. *ASTM E 1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricane.*

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- M. *ASTM D 635 - Test Method for Rate of Burning and/or Extent of Time of Burning of Self-Supporting Plastics in a Horizontal Position.*
- N. *ASTM D 1929 - Test Method for Ignition Properties of Plastics.*
- O. *ASTM D 2843 – Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.*
- P. *ASTM F 1642 – Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loading.*
- Q. *ASTM F 2912 – Standard Specification for Glazing and Glazing Systems Subject to Airblast Loading.*
- R. *AAMA/WDMA/CSA 101/I.S.2/A440 - Standard/Specification for Windows, Doors, and Unit Skylights; 2011.*
- S. *FM Standard 4431 - The Approval Standard for Skylights.*
- T. *FEMA P-361 – Safe Rooms for Tornadoes and Hurricanes.*
- U. *ICC 500 – Standard for the Design and Construction of Storm Shelters.*
- V. *UL 2108 - Low Voltage Lighting Systems.*
- W. *GSA-TS01-2003: Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings.*
- X. *Unified Facilities Criteria (UFC) 4-010-01, Change October 2013, DoD Minimum Antiterrorism Standards for Buildings,*
- Y. *CSA C22.2 No. 250.0 – Luminaires.*
- Z. *ICC-ES AC-16 - Acceptance Criteria for Plastic Skylights; 2008.*
- AA. *Florida Building Code TAS 201 – Impact Test Procedures.*
- BB. *Florida Building Code TAS 202 – Criteria for Testing Impact and Non Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading.*
- CC. *Florida Building Code TAS 203 – Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.*
- DD. *IBC Section 1710 - Load Test Procedure for Wind Load Testing on Rooftop Daylight Collecting System - Structural Performance Testing - Devised by ATI PE); 2012.*
- EE. *IBC Section 2606.7.2 – Installation – Diffuser Fall Out Test (Devised by PE); 2012.*
- FF. *OSHA 29 CFR - 1910.23 (e)(8) (Guarding Requirements for Skylights); 1926 Subpart M (Fall Protection); 1926.501(b)(4)(i); 1926.501(i)(2); 1926.501(b)(4)(ii).*
- GG. *California State OSHA Fall Protection Code of Regulations, Title 8, Section 3212 (e)(1).*

1.04 PERFORMANCE REQUIREMENTS

- A. *Daylight Reflective Tubes: Spectralight Infinity with INFRAREDuction Technology combines ultra-high Visible Light reflectance with Ultra-low Infrared (IR) reflectance. Patented*

spectrally-selective optical surface yields an average total- and specular-reflectance greater than 99.5% percent for the Visible Light spectrum (400 nm to 700 nm) providing maximized visible light transmission and less than 25% reflectance for Infrared (IR) heat wavelengths (750 nm to 2500 nm) for minimized heat transmission, resulting in a spectrally-selective Total Solar Spectrum (250 nm to 2500 nm) reflectance less than 37 percent, as measured using a Perkin Elmer Lambda 1050 spectrophotometer with a Universal Reflectance Accessory. Color: a and b* (defined by CIE L*a*b* color model) shall not exceed plus 2 or be less than minus 2 as determined in accordance to ASTM E 308.*

- A. *BRIGHTEN UP 290 DS (Suspended or Open Ceilings)
AAMA/WDMA/CSA 101/IS2/A440, Class CW-PG70 size tested 14 inch (356 mm), Type TDDCC.*
1. *Air Infiltration Test: Air infiltration will not exceed .30 cfm/sf aperture with a pressure delta of 1.57 psf across the tube when tested in accordance with ASTM E283.*
 2. *Water Resistance Test: No uncontrolled water leakage at 16.5 psf pressure differential with water rate of 5 gallons/hours/sf when tested in accordance with ASTM E331.*
 3. *Uniform Load Test:*
 - a. *No breakage, permanent damage to fasteners, hardware parts, or damage to make tubular skylight inoperable or cause permanent deflection of any section in excess of 1 percent of its span at a Positive or Negative Load of 35 psf (1.68 kPa).*
 - b. *All units shall be tested with a safety factor of (3) for positive pressure and (2) for negative pressure, acting normal to plane of roof in accordance with ASTM E330.*
 4. *Fire Testing:*
 - a. *When used with the Dome Edge Protection Band, all domes meet fire rating requirements as described in the 2012 International Building Code.*
 - b. *Self-Ignition Temperature - Greater than 650 degrees F per ASTM D1929.*
 - c. *Smoke Density - Rating no greater than 450 per ASTM Standard E84 in way intended for use. Classification C.*
 - d. *Rate of Burn and/or Extent - Maximum Burning Rate: 2.5 inches/min (62 mm/min) Classification CC-2 per ASTM D635.*
 - e. *Rate of Burn and/or Extent - Maximum Burn Extent: 1 inch (25 mm) Classification CC-1 per ASTM D635.*

1.05 SUBMITTALS

- A. *Submit under provisions of Section 01 33 00.*
- B. *Product Data: Manufacturer's data sheets on each product to be used, including:*
1. *Preparation instructions and recommendations.*
 2. *Storage and handling requirements and recommendations.*
 3. *Installation methods.*

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- C. *Shop Drawings. Submit shop drawings showing layout, profiles and product components, including anchorage, flashings and accessories.*
- D. *Verification Samples: As requested by Architect.*
- E. *Test Reports: Independent testing agency or evaluation service reports verifying compliance with specified performance requirements.*
- F. *LEED/CHPS Submittals: Provide documentation of how the requirements of Credit will be met:*
 - 1. *List of Daylight Credits available for the products specified.*
 - 2. *Data on Energy Optimization Performance Credits for the products specified.*
 - 3. *Data on Regional Credits which may be available for the project location.*
 - 4. *Data on Perimeter and Non-Perimeter Controllability of Systems for use of Daylight Dimmer option with the products specified.*
 - 5. *Data on potential Innovation in Design Credits which may be available for the innovative use of the products specified.*

1.06 QUALITY ASSURANCE

- A. *Manufacturer Qualifications: Engaged in manufacture of tubular skylights for minimum 10 years.*

1.07 DELIVERY, STORAGE, AND HANDLING

- A. *Store products in manufacturer's unopened packaging until ready for installation.*
- B. *Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.*

1.08 PROJECT CONDITIONS

- A. *Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.*

1.09 WARRANTY

- A. *Tubular Daylighting System: Manufacturer's standard warranty for 10 years.*
- B. *Electrical Parts: Manufacturer's standard warranty for 5 years, unless otherwise indicated.*
- C. *Refer to Section 01 78 30 – Warrantees, Guarantees & Bonds for additional requirements.*

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. *Acceptable Manufacturer: Solatube International, Inc., which is located at: 2210 Oak Ridge Way ; Vista, CA 92081; Toll Free Tel: 888-765-2882; Tel: 760-597-4400; Fax: 760-597-4488; Web: www.solatube.com*
- B. *Substitutions: Permitted for all equal products submitted and approved prior to bid.*
- C. *Requests for substitutions will be considered in accordance with provisions of Section 01 25 00 – Substitution Procedures and 01 60 00 – Product Requirements.*

2.02 TUBULAR DAYLIGHTING SYSTEM

- A. *Tubular Daylighting System General: Transparent roof-mounted skylight dome and self-flashing curb, reflective tube, and ceiling level diffuser assembly, transferring sunlight to interior spaces; complying with ICC ES AC-16.*
- B. *Brighten Up Series: Solatube Model 290 DS: 14 Inch (350 mm) Daylighting System:*
 - 1. *Roof Dome Assembly: Transparent, UV and impact resistant dome with flashing base supporting dome and top of tube.*
 - a. *Outer Dome Glazing: Type DA, 0.125 inch (3.2 mm) minimum thickness injection molded acrylic classified as CC2 material; UV inhibiting (100 percent UV C, 100 percent UV B and 98.5 percent UV A), impact modified acrylic blend.*
 - b. *Raybender 3000: Variable prism optic molded into outer dome to capture low angle sunlight and limit high angle sunlight*
 - 2. *Roof Flashing Base:*
 - a. *One Piece: One piece, seamless, leak-proof flashing functioning as base support for dome and top of tube. Sheet steel, corrosion resistant conforming to ASTM A 653/A 653M or ASTM A 463/A 463M, 0.028 inch (0.7 mm) thick.*
 - 1) *Base Style: Type F4, Self mounted, 4 inches (102 mm) high.*
 - 2) *Base Style: Type F8, Self mounted, 8 inches (203 mm) high.*
 - 3) *Base Style: Type F11, Self mounted, 11 inches (279 mm) high.*
 - 4) *Base Style: Type FC, Curb cap, with inside dimensions of 27 inches by 27 inches (685 mm x 685 mm) to cover curb as specified in Section 07600.*
 - 3. *Dome Edge Protection Band: Type PB, for fire rated roofs with turret height less than 8 inches (203 mm). Galvanized steel. Nominal thickness of 0.039 inch (1 mm).*
 - 4. *Roof Flashing Turret Extensions: Provide manufacturer's standard extensions for applications as requiring:*
 - a. *Type T12: Additional lengths of 12 inches (300 mm) extension.*
 - b. *Type T24: Additional lengths of 24 inches (600 mm) extension.*
 - c. *Type T36: Additional lengths of 36 inches (900 mm) extension.*
 - d. *Type T48: Additional lengths of 48 inches (1200 mm) extension.*

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5. *Tube Ring: Attached to top of base section; 0.090 inch (2.3 mm) nominal thickness injection molded high impact PVC; to prevent thermal bridging between base flashing and tubing and channel condensed moisture out of tubing.*
6. *Tube Ring Seal: Attached to the base of the dome ring; butyl glazing rope 0.24 inch (6 mm) diameter; to minimize air infiltration*
7. *Dome Seal: Adhesive backed weatherstrip, 0.63 inch (16 mm) tall by 0.28 inch (7 mm) wide.*
8. *Reflective Tubes: Aluminum sheet, thickness 0.018 inch (0.5 mm).*
 - a. *General:*
 - 1) *Interior Finish: Spectralight Infinity high reflectance specular finish on exposed reflective surface. Specular reflectance for visible spectrum (400 nm to 760 nm) greater than 99 percent. Total solar spectrum reflectance (400 nm to 2500 nm) less than 80.2 percent.*
 - 2) *Color: a* and b* (defined by CIE L*a*b* color model) shall not exceed plus 2 or be less than minus 2 as determined in accordance to ASTM E 308.*
 - b. *Top Tube Angle Adapter, Type TA:*
 - 1) *Reflective 45 degree adjustable Top Tube Angle Adapter, 16 inches (406 mm) long.*
 - c. *Bottom Tube Angle Adapter, Type BA:*
 - 1) *Reflective 45 degree adjustable Bottom Tube Angle Adapter, 16 inches (406 mm) long*
 - d. *Top Tube Angle Adapter and Bottom Top Tube Angle Adapter Kit, Type AK:*
 - 1) *Reflective 45 degree adjustable top and bottom angle adapters (one each), 16 inches (406 mm) long*
 - e. *Extension Tube:*
 - 1) *Reflective extension tube, Type EXX, Notched for Open Ceiling diffuser attachment, 24 inches (610 mm) or 48 inches (1220 mm) long*
 - f. *Reflective 90 degree Adjustable tube:*
 - 1) *Extension Tube Angle Adapter: Provide manufacturer's standard adapters for applications requiring:*
 - a) *Type A1 one 0 to 90 degree extension tube angle adapter.*
 - b) *Type A2 two 0 to 90 degree extension tube angle*

adapters.

9. *Round Diffusers/Decorative Fixtures: Dual Glazed Diffuser Assembly*
 - a. *Lens: Classic Vusion Diffuser: Type L4, molded acrylic plastic classified as CC2 material (nominal thickness 0.090 inches (2.29 mm). Visible Light Transmission shall be greater than 90 percent at 0.022 inch (0.6 mm) thick. Classified as CC2.*
 - b. *Diffuser Seal: Open cell foam, acrylic adhesive backed, 0.75 in (19 mm) wide by 0.125 in (3.2 mm) thick to minimize condensation and bug, dirt and air infiltration per ASTM E 283.*
 - c. *Ceiling Ring: Injection molded acrylic. Nominal wall thickness 0.172 inches (4.4 mm)*

10. *Accessories:*
 - a. *Security Bar: Type B Security Bar 0.375 inch (95 mm) stainless steel bar across flashing diameter opening.*
 - b. *Open ceiling trim ring: Type R, Aluminum. Nominal thickness of 0.018 inch (0.5 mm).*
 - c. *Wire Suspension Kit: Type E, Use the wire suspension kit when additional bracing to the structure is required.*
 - d. *Local Dimmer Control utilizing a butterfly baffle design of Spectralight Infinity reflective material to minimize shadowing when in use: Provided with dimmer switch and cable.*
 - 1) *Daylight Dimmer: Type D Electro-mechanically actuated daylight valve; for universal input voltages ranging between 90 and 277 V at 50 or 60 Hz; maximum current draw of 50 ma per unit; controlled by low voltage, series Type T02: circuited, 4 conductor, size 22 cable; providing daylight output between 2 and 100 percent. Provided with dimmer switch and cable.*
 - 2) *Switch: Type SW, Manufacturer-specific low voltage DC DP/DT switch (white) required to operate Daylight Dimmer. Note: only one switch is required per set of synchronously controlled dimmers.*
 - 3) *Cable: Type CA, Two conductor low voltage cable (500 foot) for multiple unit DC connection.*
 - e. *Security Kit: Type SK Dome Security Kit, rivets with nylon spacers to replace dome screws.*

2.03 ACCESSORIES

- A. *Fasteners: Same material as metals being fastened, non-magnetic steel, non-corrosive metal of type recommended by manufacturer, or injection molded nylon.*
- B. *Suspension Wire: Steel, annealed, galvanized finish, size and type for application and ceiling system requirement.*
- C. *Sealant: Polyurethane or copolymer based elastomeric sealant as provided or*

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recommended by manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. *Do not begin installation until substrates have been properly prepared.*
- B. *If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.*

3.02 PREPARATION

- A. *Clean surfaces thoroughly prior to installation.*
- B. *Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.*

3.03 INSTALLATION

- A. *Install in accordance with manufacturer's printed instructions.*
- B. *Installer shall be factory trained and certified by the manufacturer prior to commencement of installation.*

3.04 PROTECTION

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

END OF SECTION

SECTION AD1-09 68 13

TILE CARPETING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This section includes the following:

- 1. Tufted carpet tile.

- B. Related sections:

- 1. 02 41 19 Selective Demolition

1.03 SUBMITTALS

- A. Manufacturer's Data - Submit two (2) copies of manufacturer's specifications and installation instructions for carpet tile and related items specified. Manufacturer shall also submit a plan for recycling the specified carpet tile and related items at the end of useful life of the carpet.
- B. Fiber and backing verification - Certification from the producer verifying use of the branded fiber and backing in the submitted carpet product. Certification should include the % recycled content by weight for fiber and backing, describing the source of this recycled content. If virgin nylon or backing is used, the manufacturer shall include as part of the fiber and backing certification, the precise method that will be used to recapture the nylon and backing at the end of the useful life of the carpet tile. State how it will be returned to carpet production, fiber into fiber and backing into backing. Fiber types shall not be mixed to facilitate future recycling.
- C. Shop Drawings - Submit shop drawings for areas to be carpeted showing installation of carpeting, seam diagram, pattern direction, necessary installation accessories, and provisions for work of other trades. Show location of different patterns or styles of carpet. Also, show locations of any threshold conditions.
 - 1. The construction manager will supply reproducible prints on request, to facilitate shop drawing preparation.
- D. Samples - Submit standard size carpet samples of each type of carpet, in each specified pattern, color and construction.
 - 1. Any alternates to specified products) must be submitted for approval by a representative of the end user at least ten (10) working days prior to bid or proposal.
 - 2. Final Sample Submittal - Submit two (2) sets of samples for each carpet type.

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3. No carpet shipments are permitted until acceptance of final samples by representative of the end user or architect/design firm, certifying that samples are the approved color, pattern, and texture. No carpet shipments are permitted until the fiber and backing certifications and recycling plans are approved by the end user or architect/design firm.
 4. Custom Color Only - Quality color samples shall be signed by a representative of the end user or architect/design firm, certifying that samples are the approved color, pattern, and texture.
 5. Samples submitted will be assumed to be the manufacturer's best obtainable match to the carpet described under Materials section.
- E. Maintenance Instructions - Submit to the District two (2) copies of the manufacturer's carpet maintenance instructions, including information needed for the removal of common stains from each type of carpet required.
- F. Recycling Instructions - Submit to the District two (2) copies of the manufacturer's instructions on post-consumer recycling of the specified carpet tile and related items.
1. A representative from the carpet manufacturer shall meet with the Construction Manager in the presence of a representative of the end user and architect/design firm to review the recommended procedures, prior to occupancy of the finished spaces.

1.04 QUALITY ASSURANCE

- A. Manufacturer - Carpet manufacturer shall have no less than three years of production experience with recyclable carpet tile (fiber to fiber and backing to backing) similar to type specified in this document; and whose published product literature clearly indicates compliance of products with requirements of this section.
1. Single source responsibility - provide product material by a single manufacturer for each recyclable carpet type specified.
 2. Commitment to sustainability - carpet manufacturer must practice environmental responsibility through programs of source reduction, recycling, reuse, and conservation.
- B. Trade Contractor - firm with not less than five years of successful carpet tile experience similar to work of this Section and recommended and approved by the carpet manufacturer. Upon request, submit letter from carpet manufacturer stating certification qualifications and acceptance of all environmental requirements.
1. Participant in environmental program including responsible carpet removal, recycling and installation
- C. Substitutes - Where a selected manufacturer or product has been specified, an equal or superior product may be accepted only upon review and written acceptance by the architect. It is mandatory that such review and approval be obtained prior to bidding, or the substitution will not be considered. All such proposed substitutions shall be submitted to the architect with appropriate manufacturer's specifications, literature, environmental compliance assurance, and independent laboratory testing data. The architect's

decision as to whether a product is equal or superior to the one specified shall be final. This section applies to any "or equal" noted in the specification.

1.05 PRODUCT DELIVERY AND STORAGE

- A. Deliver carpeting materials in sealed protective packaging for carpet tile and sealed containers for related materials. Carpet materials shall be bound with secure protective wrapping. Consideration should be given to bulk packaging of carpet tile when delivery is made to the jobsite for immediate installation to reduce packaging waste.
- B. Storage and staging area at the site must be coordinated with the Construction Manager.
- C. Provide 3% overage of calculated yardage for each type of carpet (calculated yardage shall include carpet needed for complete installation plus waste and usable scraps).
 - 1. Deliver specified overrun and usable scraps of packages to owner's designated storage space, properly packaged (boxed) and identified. (Redirect small pieces of waste carpet to be appropriately recycled.)
- D. Materials shall be stored in an enclosed and dry area protected from damage and soiling.

1.06 PRE-INSTALLATION MEETING

- A. The manufacturer shall meet at the project site with representatives of end user, Construction Manager and the Trade Contractor to review the carpet installation procedure and coordination with other trades. The Trade Contractor must have available at this meeting the carpet manufacturer's installation procedures, instructions for the carpet types specified in the various applications required, and recycling procedures outlined in the manufacturer's environmental program.
- B. Store carpet in working areas which have been enclosed and have maintained environmental conditions as those planned for occupancy. Carpet shall be allowed to reach room temperature or minimum temperature recommended by manufacturer before installation.

1.07 WARRANTY

- A. Provide warranties by Carpet Manufacturer and Trade Contractor agreeing to replace defective materials and workmanship of carpet work during one (1) year warranty period following Notice of Completion. Also, submit carpet manufacturer's warranties as follows:
 - 1. Wear - Surface wear shall not be more than 10% by weight throughout the life of the product.
 - 2. Static - Carpet will maintain static generation at less than 3.5 KV at 70 degrees F, and 20% R.H. throughout the life of the product.
 - 3. No delamination throughout the life of the product.
 - 4. No edge ravel throughout the life of the product.
 - 5. No dimensional instability, i.e. shrinkage, curling, and doming which adversely affect the ability of the tile to lay flat throughout the life of the product (per installation instructions). See Aachen test.

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- 6. Colorfastness Warranties: Lifetime Colorfastness to Light, Lifetime Colorfastness to Atmospheric Contaminants for 100% solution dyed nylon products.
- 7. Stain Removal: Lifetime Stain Removal Limited Guarantee
- 8. Manufacturer must take back carpet free of charge for quantities above 500 yds.
- B. Submit manufacturer's certified independent test results to show that carpet meets or exceeds product performance specification criteria for carpet testing requirements (i.e. see section 2.3 flame, smoke, Aachen test, etc.).
- C. Lifetime Commercial Limited Warranty (Owner's Option) - Owner will be completely satisfied with the performance of the carpet product when installed in accordance with the manufacturer's current installation specifications and is maintained in accordance with the current carpet care recommendations and such maintenance continues throughout the duration of the original installation when owned and maintained by the original end user. Further, owner will be satisfied with the recycling of the product at the end of its useful life as outlined in the manufacturer's environmental program.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Preferred Manufacturer: Tarkett (Tandus)
 - 1. Pattern (Architect shall select up to (3) types:
 - a. Main: Haphazard II 03366; Seahorse 13513
 - b. Accent 1: Plexus Colour IV 02875; Glacier Bay 18571
 - c. Accent 2: Plexus Colour IV 02875; Wind Wave 18566
 - d. Walk-off Mat: Geo Tile 00979; Charcoal 00154
- B. Acceptable Manufacturers: Equal products only.

2.02 CARPET TILE

- A. Package Marking - Mark each carpet package according to style, color, pattern, dye lot, run number and quantity. Within each continuous carpet area, install carpet from same dye lot and run.
- B. Carpet Construction Specification - All yarn and carpet shall be manufacturer's first quality and 100% recyclable.

2.03 CARPET SHALL MEET THE FOLLOWING PERFORMANCE STANDARDS:

- A. Flooring Radiant Panel (ASTM E648): Class I
- B. Smoke Generation (ASTM E662): < 450

2.04 PRODUCT SPECIFICATIONS

- A. Product recyclability 100%
- B. Format Type Modular 24" Tile
- C. Fiber System TDX Nylon

D.	Dye Method	Solution Dyed
E.	Face Weight	14 oz/yd ²
F.	Total Thickness (ASTM F386)	0.280" (7.06 mm)
G.	Recycled Content	29% Pre-Consumer 36% Post-Consumer
H.	Cradle to Cradle Certified	Must be MBDC Cradle to Cradle Certified - Silver
I.	Size	24 in. x 24 in.
J.	NSF140	Platinum Certified

2.05 MINIMUM CONSTRUCTION STANDARDS IN ADDITION TO PRODUCT SPECIFICATIONS

- A. Conform to 2016 CBC for accessibility as follows: CBC Section 11B-302.2
 - 1. Carpet shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. It shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture, with a maximum pile height of ½", per 11B-302.2.
 - 2. Exposed edges shall be fastened to floor surfaces and shall have trim on the entire length. Carpet edges shall comply with CBC Section 11B-303.
- B. Nylon Specification - All nylon fiber shall be branded nylon containing pre-consumer recycled content.
- C. Average pile thickness as determined by ASTM D418.
- D. Appearance Retention Rating (see performance standards)
- E. Carpet tile backing shall contain pre consumer and post consumer recycled content.

2.06 RELATED CARPET MATERIALS

- A. Leveling Compound - Latex type as recommended by carpet manufacturer and is compatible with carpet adhesive and curing/sealing compound on concrete.
- B. Releasable pressure sensitive type adhesive - Use the following as recommended by the carpet manufacturer which will allow removal of carpet at any time without damage or adherence to carpet: N5000 low VOC (no solvents) carpet tile adhesive.
- C. Multi-purpose Adhesive - Provide the following adhesive as recommended by carpet manufacturer for direct glue-down of carpet on steps.
- D. Carpet Edge Guard, Nonmetallic - Extruded or molded heavy duty vinyl or rubber carpet edge guard of size and profile indicated and with minimum 2 inch wide anchorage flange; colors selected by architect/designer from among standard colors available within the industry.

- E. Miscellaneous Materials - As recommended by manufacturer of carpet, cushion and other carpeting products and selected by Trade Contractor to meet project circumstance and requirements.

PART 3 - EXECUTION

3.01 PRE-INSTALLATION REQUIREMENTS AND PREPARATORY WORK

- A. The Trade Contractor shall measure carefully and check all dimensions and other conditions in the field to insure proper fit in the areas designated. Trade Contractor shall be totally responsible for the accuracy of his measurements on total yardage requirements, individual floor yardage requirements and dye lot yardage requirements. No request for carpet or installation extras from the owner will be considered due to measurement or takeoff errors by the Trade Contractor. The Trade Contractor shall confirm total yardage required, including 3% attic stock along with bid.
- B. The Trade Contractor shall coordinate all installation activities with the Construction Manager.
- C. Removal of carpet to be replaced (if applicable) should be handled according to preapproved plan for reuse and/or recycling. See carpet reclamation specification.
- D. Sequence carpeting with other work so as to minimize possibility of damage and soiling of carpet during remainder of construction period. Carpet installation must not commence until painting and finishing work is complete and ceiling and other overhead work has been tested, approved and completed, unless specifically approved by owner's Project Manager, in writing.
- E. Trade Contractor and manufacturer's representative must examine substrates for conditions over which carpeting is to be installed.
 - 1. New concrete shall be allowed to cure for ninety (90) days before carpet installation.
 - 2. Trade Contractor shall perform moisture content testing as required in manufacturer's instructions to ensure pH readings of no more than 9. Moisture transmission of 5.5 pounds per sqm per 24 hours is acceptable. If values exceed this level manufacturer's recommendations must be followed for moisture transmission mitigation. Do not proceed until unsatisfactory conditions are corrected.
 - 3. Cracks 1/16 inch or more, holes, unevenness and roughness must be filled, leveled and made smooth with a compatible latex floor patching compound. Prior to filling, the floor must be swept clean of all loose granular debris. After filling, allow filler to dry. Then damp mop the floor with warm water and allow to dry. Vacuum after mopping, to ensure all loose granular debris is removed and provide a proper substrate to install carpet.
- F. All surfaces to receive carpet shall be clean and dry, and in a condition satisfactory to the Trade Contractor. Trade Contractor shall notify Construction Manager in writing of any conditions which will prevent him from producing satisfactory finish work after above specified preparatory work is completed.
- G. Trade Contractor shall vacuum floors again immediately before installation of carpeting.

- H. Confirm compatibility of adhesive with curing compounds on concrete floors. All adhesives and curing compounds shall comply with the CRI Green Label Certification program for low VOC.
- I. Environmental Conditions - Areas to be carpeted must be pre-heated at a minimum of 68° F. for 72 hours prior to installation with the relative humidity not more than 65%. A minimum temperature of 50° F. shall be maintained thereafter. Carpet and adhesive must be stored at a minimum temperature of 68° F. for 72 hours prior to installation.
- J. Once the Trade Contractor commences installation work under this contract, it shall be assumed that the condition of the floor has been accepted and any repairs or further corrections in the floor surface shall become the responsibility of the Trade Contractor.

3.02 INSTALLATION

A. General

1. Comply with manufacturer's instructions and recommendations for uniformity of direction of carpet installation.
2. Install carpet under open-bottom obstructions and under removable flanges and furnishings, and into alcoves and closets of each space.
3. Provide cut outs where required. Conceal cut edges with protective edge guards or overlapping flanges.
4. Run carpet under open-bottom items such as heating convectors and install tight against walls, columns and cabinets so that the entire floor area is covered with carpet. Cover over all floor type door closures.
5. Install edging guard at all openings and doors wherever carpet terminates, unless indicated otherwise. Prior to installation, report to the Construction Manager all other obstructions which may occur.
6. Cutting shall be done in accordance with the manufacturer's recommendation, using the tools designed for the carpet being installed. Scraps shall be retained or disposed of per the manufacturer's environmental program.
7. Edges shall be butted together with the proper pressure to produce the tightest joint possible without distortion.
8. All carpet shall be installed with pile-lay in the same direction except when directed to use a quarter turned method as specified in the drawings.
9. Use leveling compound where necessary. Any floor filling or leveling shall have a minimum of 4'0" of feather.
10. Expansion joints - Do not bridge building expansion joints with continuous carpeting. Provide for movements.

B. Installation

1. Install carpet according to carpet manufacturer's printed instructions.

2. Measuring - Divide the room into four quadrants and snap a chalk line. Make sure quadrants meet at right angles (offset the center line, if necessary, to ensure that perimeter tiles will be cut no less than half size (9 inches).
3. Apply environmentally approved adhesive as per instructions in the area to be carpeted first.
4. Note carefully if the product is designed to be installed "quarter turned" only. Arrows should point in the same direction every other tile and diagonally. Arrows on alternating tiles should be turned 90^o in either direction, consistently.
5. Begin installing by laying an anchor row of tiles on one side of the center chalk line. Ensure straight lines and square corners. Repeat anchor rows in each quadrant, extending out from center. Fill in each quadrant with tiles using a stair step technique.
6. Tip individual tiles into place to avoid catching pile in the joint. Frequently check tile joints for proper alignment and firm abutment.
7. Although tiles are nominally 24 inches by 24 inches square, there will be slight gain due to joints. To check, measure 10 installed tiles from edge to edge, spanning 10 joints. This measurement should be no greater than 240 and 1/8 inches for tufted product. If more gain is measured, tiles are not butted tightly enough. Reposition and check again. Use this method to continually check for excessive gain. See manufacturer's instructions for 24" x 24" modular tiles.
8. Fixtures, architectural elements, and perimeters will require tile cutting. Cut tiles from the back. Secure cut or partial tiles with adhesive.
9. Electrical floor outlets are usually wired after tile installation. Install tile over electrical boxes and mark locations with a piece of tape. Tiles can be lifted for cut-outs later.
10. Center trench headers directly under a full tile row.
11. In open perimeter designs, use a fixed reducer strip to secure the tile area.
12. Use an environmentally acceptable permanent adhesive for tiles installed on stairs. Compatible edge trim and nosing products may also be required.

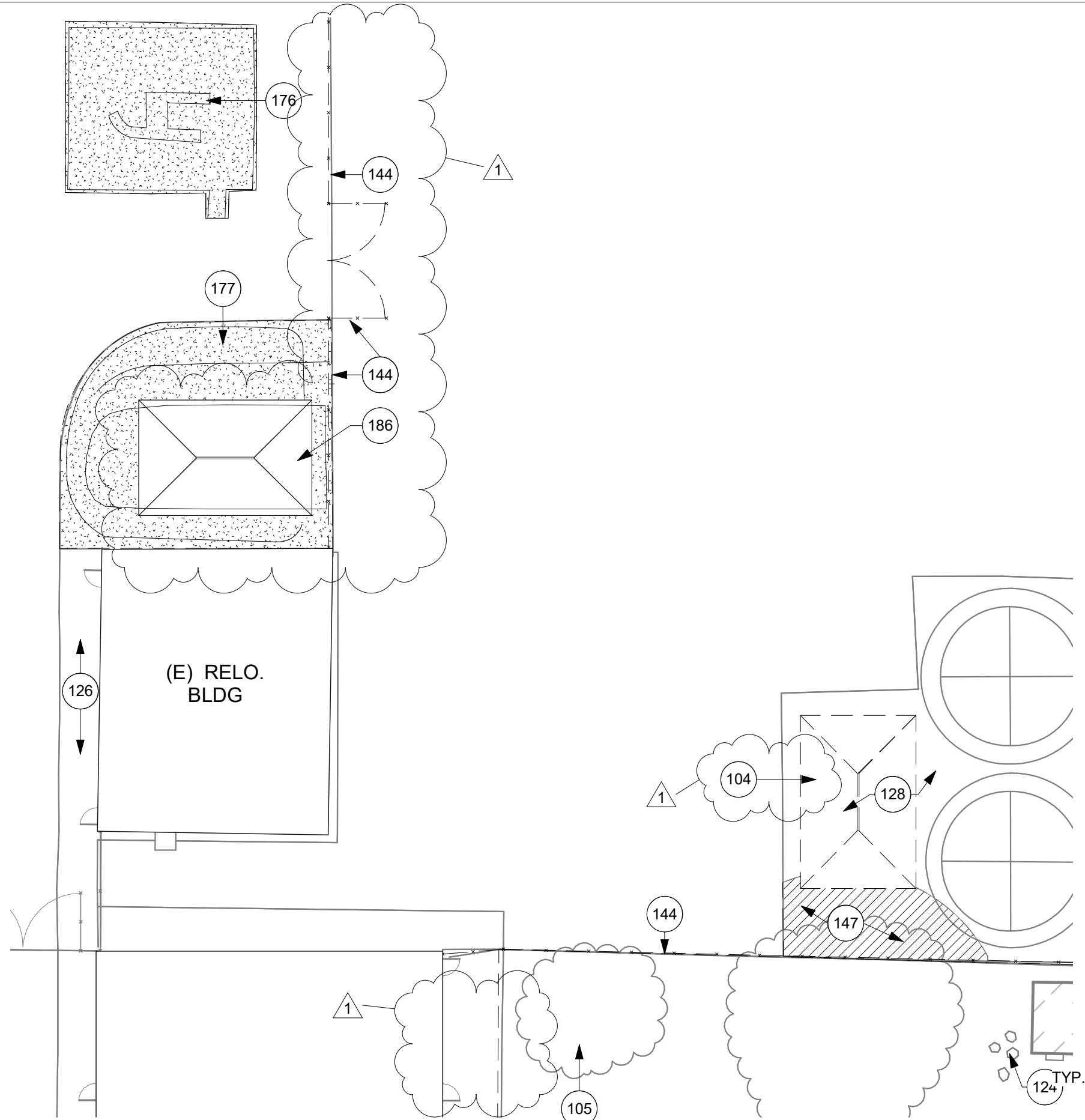
3.03 CLEANING AND PROTECTION

- A. On completion of the installation in each area, all dirt, carpet scraps, etc., must be removed from the surface of the carpet. Any soiling spots or excessive adhesive on the carpet shall be removed with the proper spot remover. (See Section 1.3.7)
- B. Construction traffic other than as may be required to fit up specific carpeted area will not be allowed to traverse the completed work.
- C. Remove debris, and sort pieces to be saved from scraps to be redirected and recycled.
- D. Protect carpeting against damage during construction. Cover with 6-mil thick polyethylene covering with taped joints during the construction period, wherever protection is required, so that carpet will be without any indication of deterioration, wear,

or damage at the time of acceptance. Damaged carpeting will be rejected and recycled. As the carpet is laid, remove all trimmings, excess pieces of carpet and laying materials.

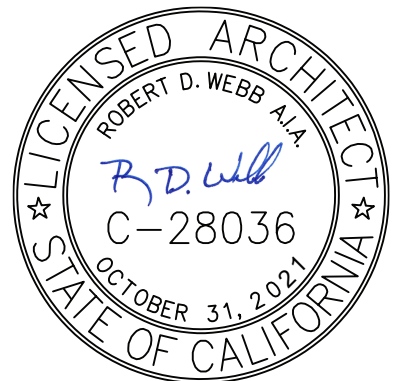
- E. At the completion of the work and when directed by the Construction Manager, vacuum carpet using commercial dual motor vacuum of type recommended by carpet manufacturer. Remove spots and replace carpet where spots cannot be removed. Remove rejected carpeting and replace with new carpeting. Remove any protruding yarns with shears or sharp scissors.
 - F. Protection of carpeting shall be maintained on each floor or area until accepted.
- 3.04 INSPECTION
- A. Preliminary Acceptance - Upon completion of the carpet installation of each floor, it shall be inspected by Owner, the Construction Manager and Trade Contractor.
 - B. Upon completion of the installation, verify that work is complete, properly installed and acceptable. Remove and replace all work not found acceptable to the owner at the installer's expense.
 - C. Upon completion of the installation the manufacturer shall deliver a certificate of recycling describing the method by which the uplifted carpet was recycled, and shall provide a promise of recycling specifying the method of recycling of the newly installed carpet tile at the end of its useful life.

END OF SECTION



KEYNOTES

- 104 REMOVE EXISTING CANOPY AND CANOPY POSTS. DISPOSE.
- 105 REMOVE EXISTING TREE, COMPLETE, INCLUDING ALL ROOTS. TREES VARY FROM 6" TO 24" DIAMETER. DISPOSE.
- 124 REMOVE AND SALVAGE EXISTING LANDSCAPING ROCKS. RETURN TO DISTRICT
- 126 (E) CONCRETE PAVING TO REMAIN
- 128 (E) ASPHALT PAVING TO REMAIN
- 144 REMOVE/DEMO (E) CHAIN LINK FENCING COMPLETE, INCLUDING POST FOUNDATIONS
- 147 REMOVE/DEMO PORTION OF (E) ASPHALT PAVING
- 176 EXISTING PLAY STRUCTURE TO BE REMOVED AND SALVAGED BY DISTRICT. PLAYSURFACE MATERIAL TO BE DEMOLISHED BY CONTRACTOR. CONTRACTOR TO REMOVE AND SALVAGE SURFACE BOARDER MATERIAL AND PINS, RETURN TO DISTRICT.
- 177 DEMO/REMOVE EXISTING PLAY SURFACE AREA. PREP TO RECEIVE NEW ASPHALT
- 186 (E) SHADE STRUCTURE TO REMAIN. PROTECT IN PLACE



AD1- PARTIAL ENLARGED SITE PLAN- DEMO

1" = 20'-0"

1

SHEET NO.
AD1-A1.1

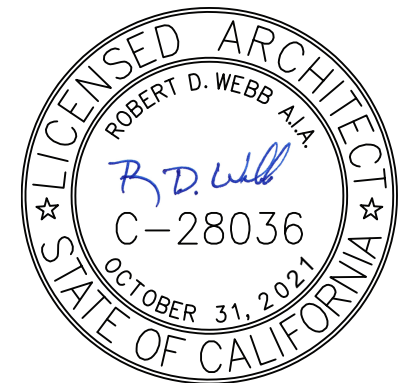
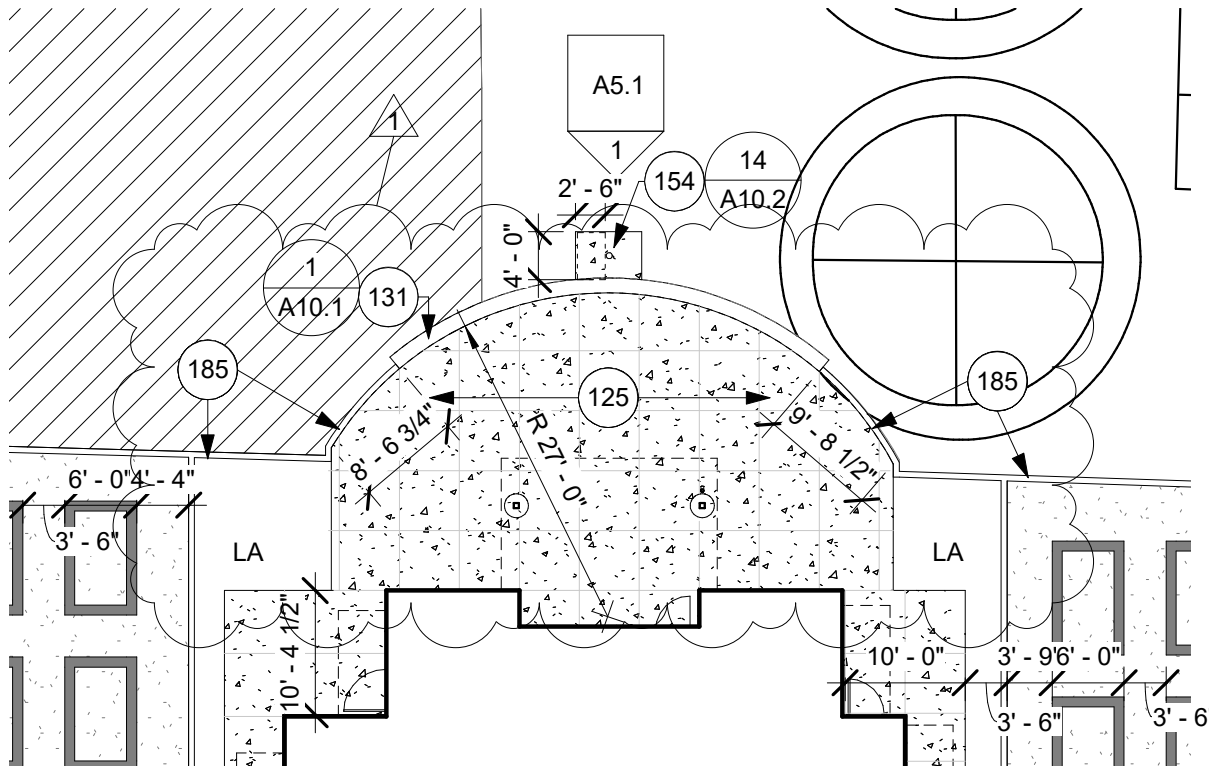
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SANTEE SCHOOL DISTRICT



515 Encinitas Blvd. Ste. 201, Encinitas, California 92024
Telephone: (760)753-6800 Fax: (760)452-7541

KEYNOTES

- 125 (N) CONCRETE PER CIVIL DETAILS
- 131 (N) BENCH WALL, SEE DETAIL 1/A10.1
- 154 PROVIDE (N) CONCRETE PAD AND INSTALL SALVAGED FLAGPOLE, SEE DTL ON PLAN
- 185 (N) CONCRETE CURB



AD1- PARTIAL ENLARGED SITE PLAN

1/16" = 1'-0"

1

SHEET NO.

AD1-A1.2

SYCAMORE CANYON ELEM. SCHOOL
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DSA APPL. NO.
04-118743

DATE:
02/27/20

SANTEE SCHOOL DISTRICT

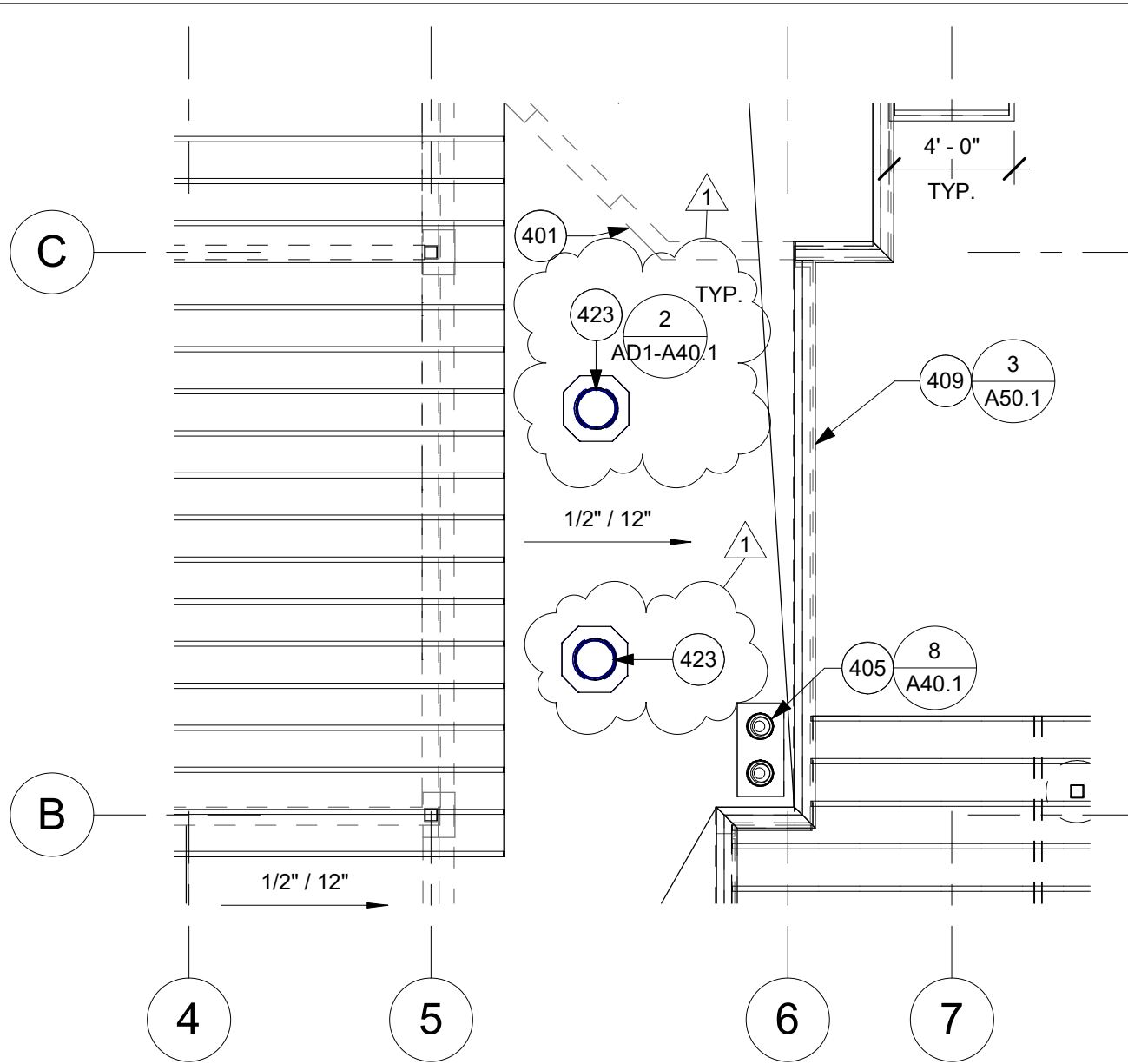


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KEYNOTES

- 401 DASHED LINES INDICATE WALL BELOW, TYP.
- 405 PROVIDE ROOF DRAIN AND OVERFLOW DRAIN, SEE PLUMBING DRAWINGS, SEE TYP. ARCH. DETAIL REF. ON PLAN
- 409 PROVIDE PREFINISHED METAL PARAPET CAP, SEE TYP. DETAIL REF. ON PLAN
- 423 PROVIDE SOLATUBE 290-DS DOME AND CURB MOUNTED FLASHING WITH DOME EDGE PROTECTION AND FIRE RATED CAULKING, TYP. SEE DETAIL REFERENCE ON PLAN

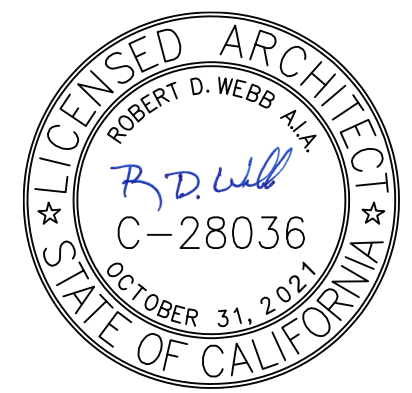
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AD1- PARTIAL ROOF PLAN

3/16" = 1'-0"

1



SHEET NO.

AD1-A4.1

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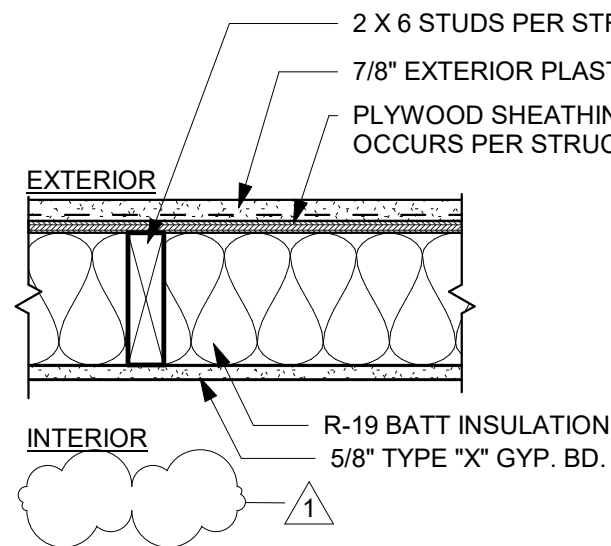
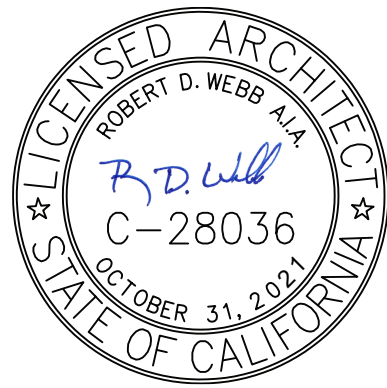
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DATE:
02/25/20

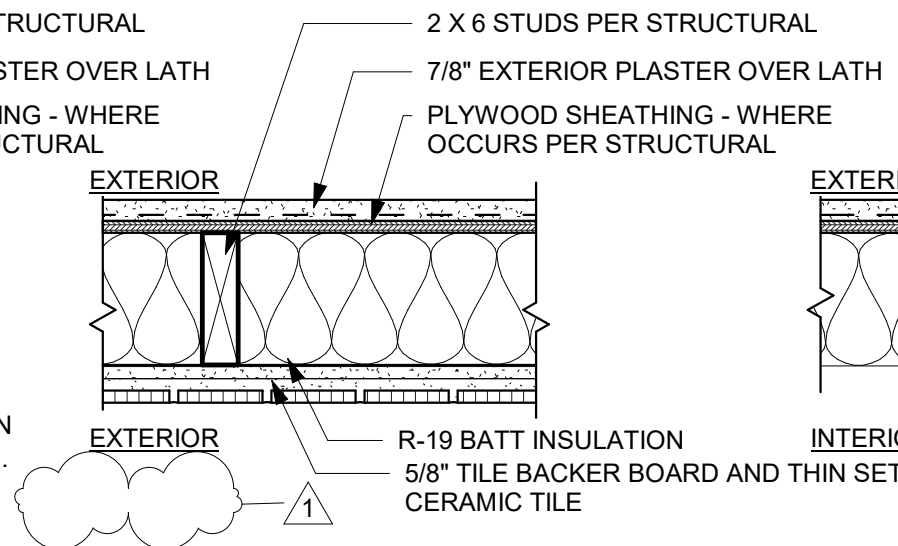
SANTEE SCHOOL DISTRICT



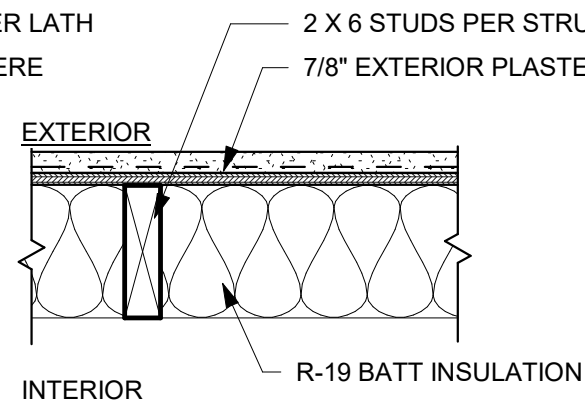
515 Encinitas Blvd. Ste. 201, Encinitas, California 92024
Telephone: (760)753-6800 Fax: (760)452-7541



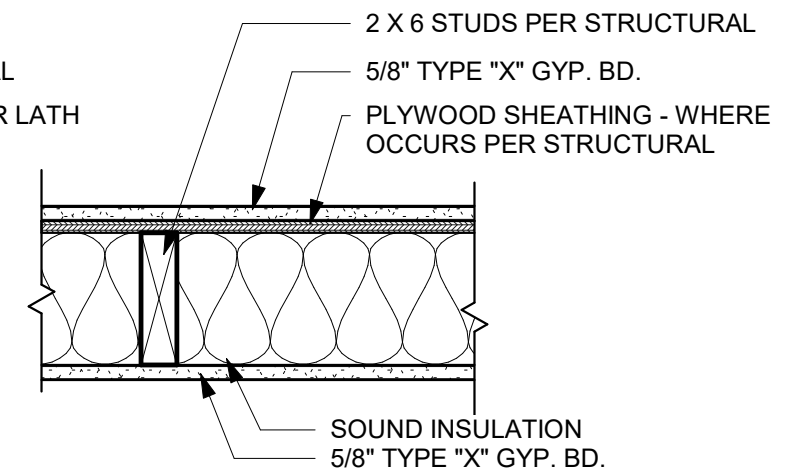
WALL TYPE WT-1



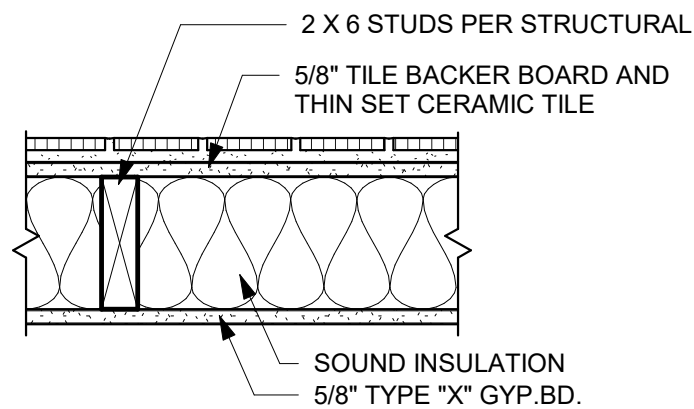
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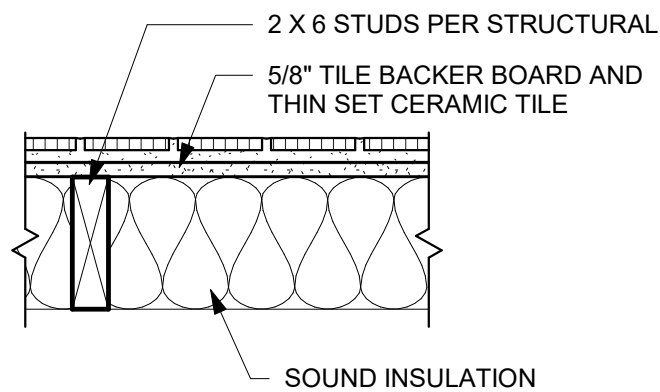
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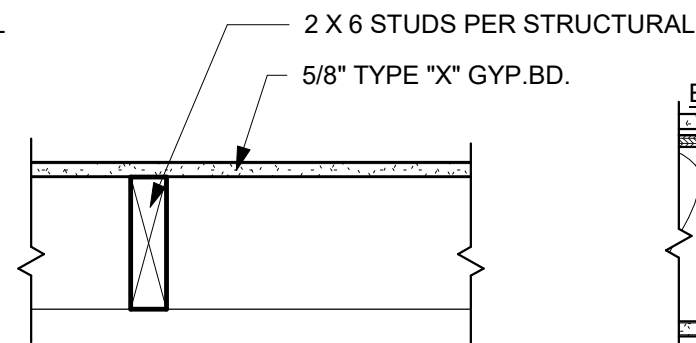
WALL TYPE WT-4



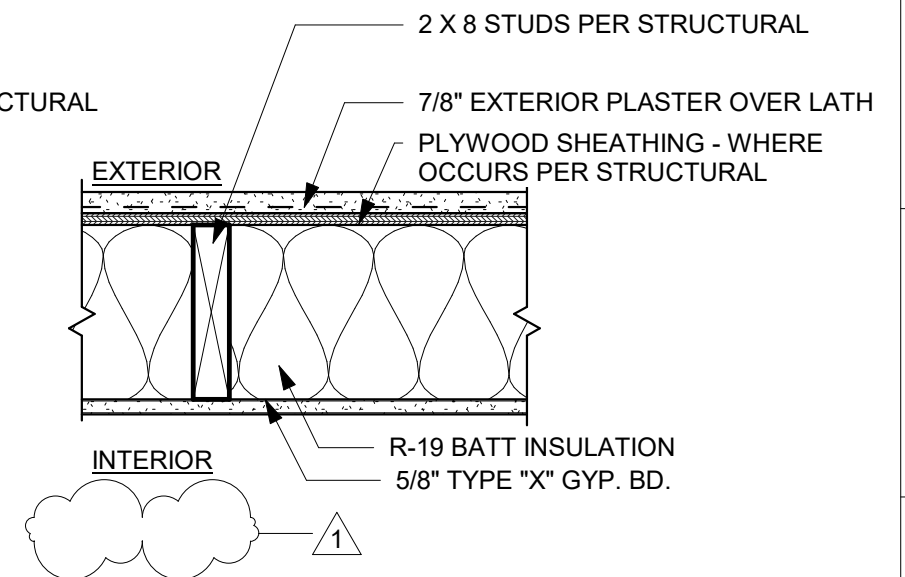
WALL TYPE WT-5



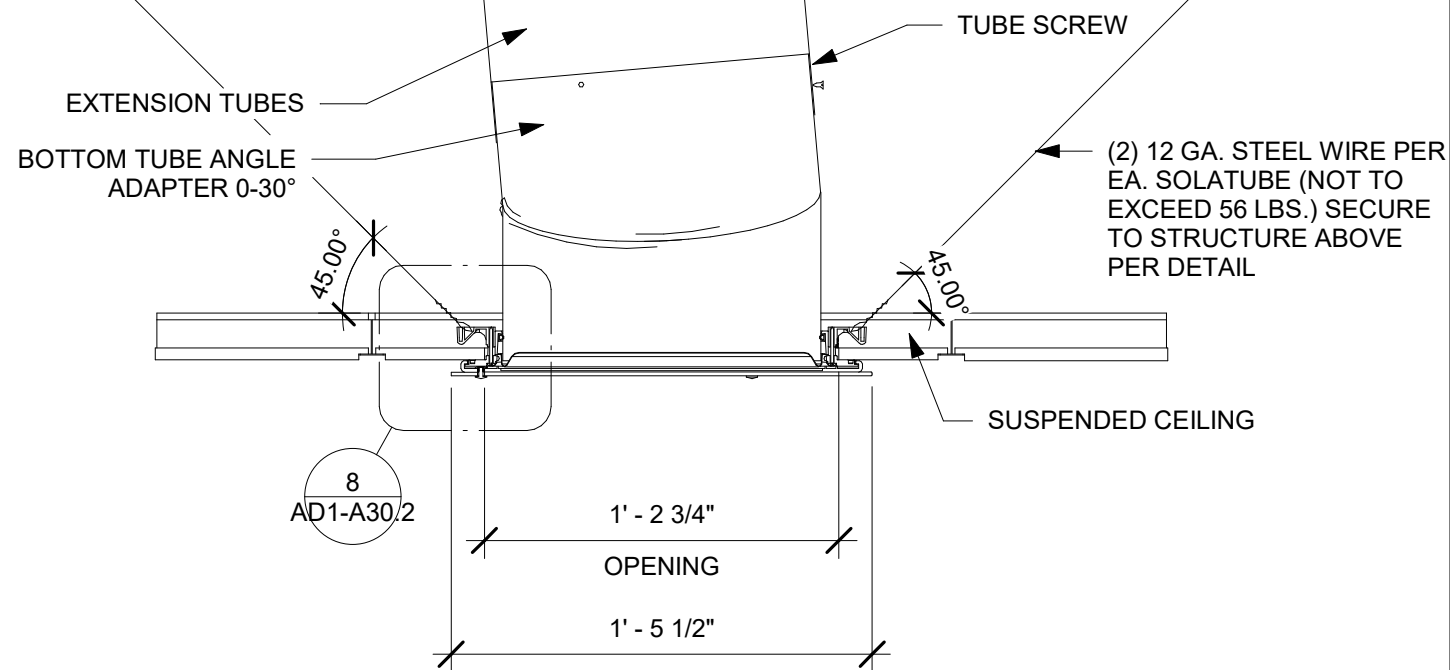
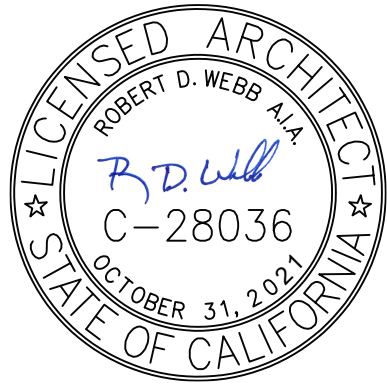
WALL TYPE WT-6



WALL TYPE WT-7



WALL TYPE WT-8



14"- SUSPENDED CEILING MOUNT

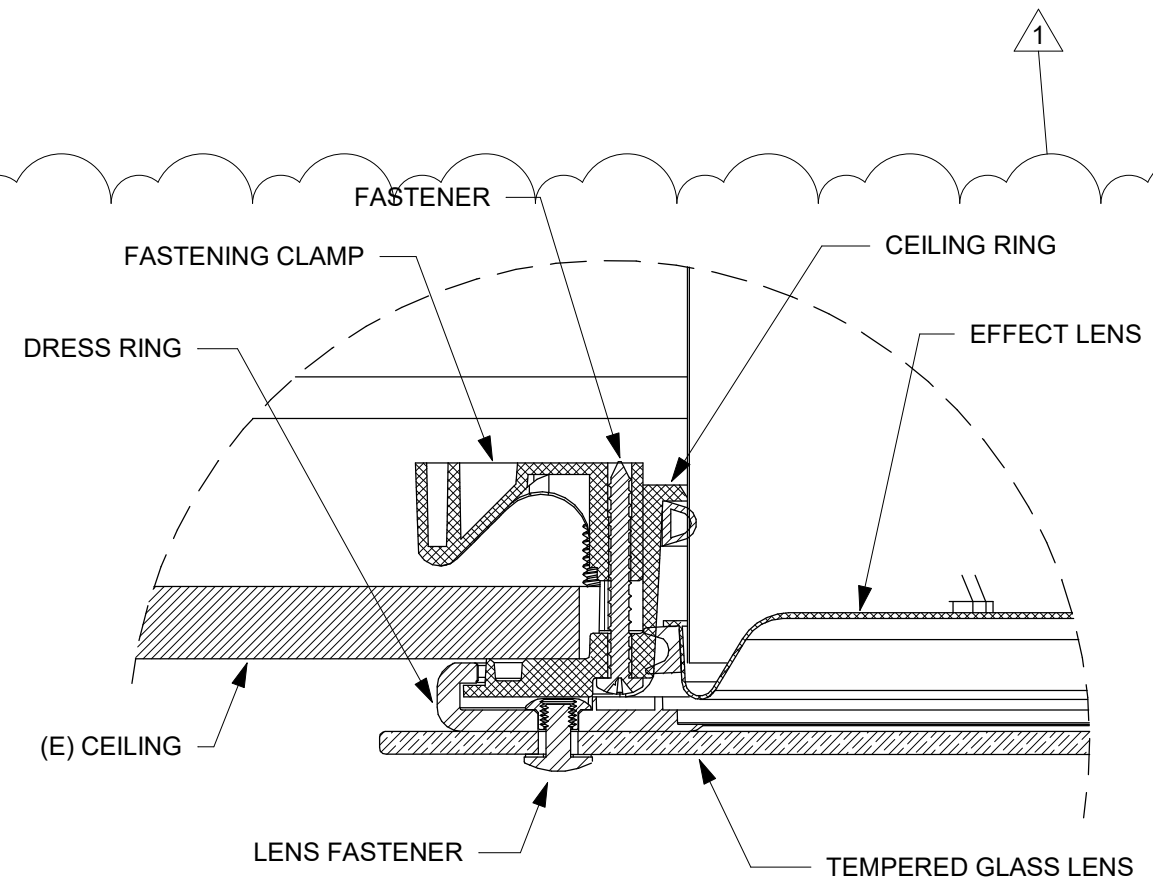
1 1/2" = 1'-0"

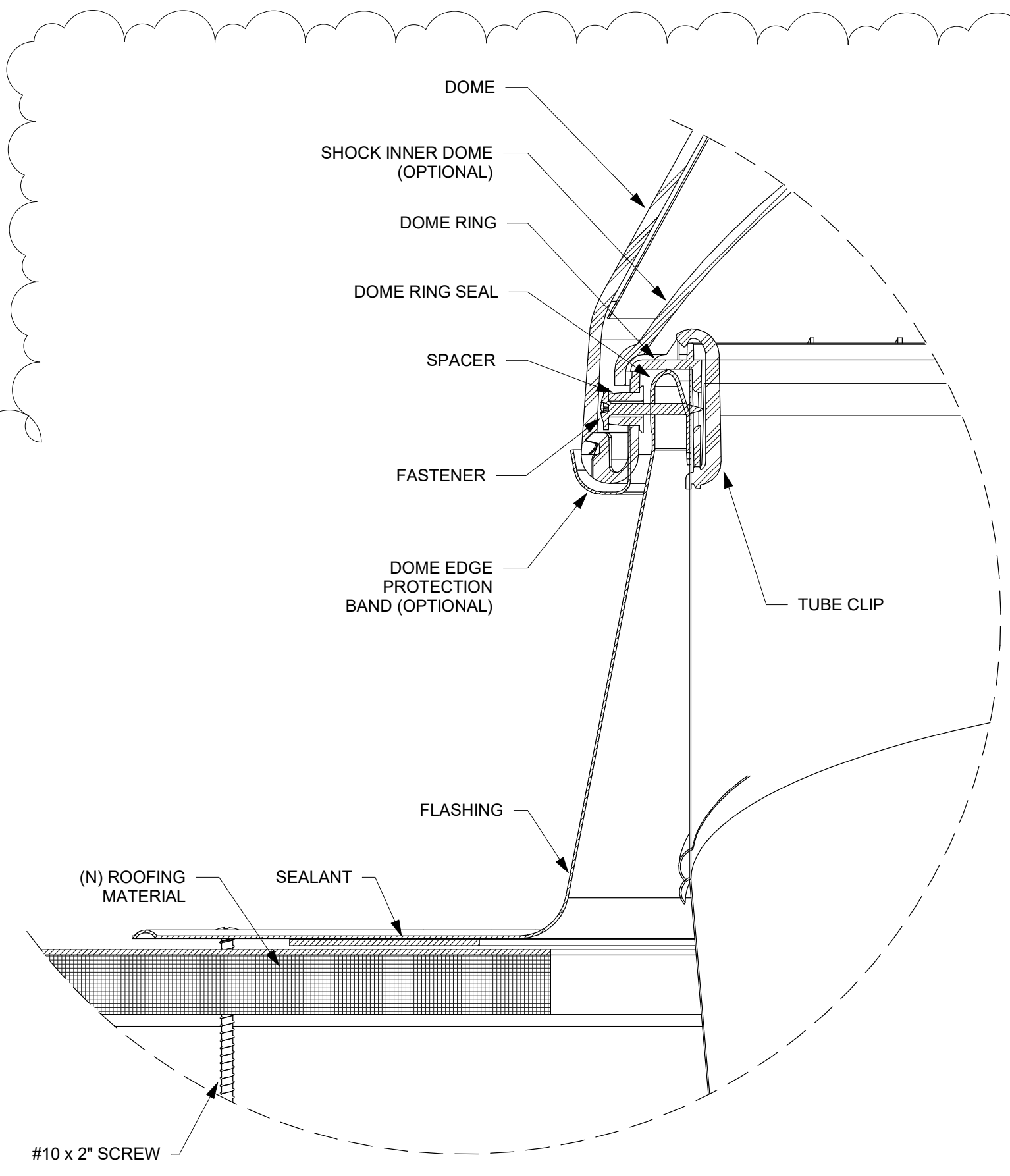
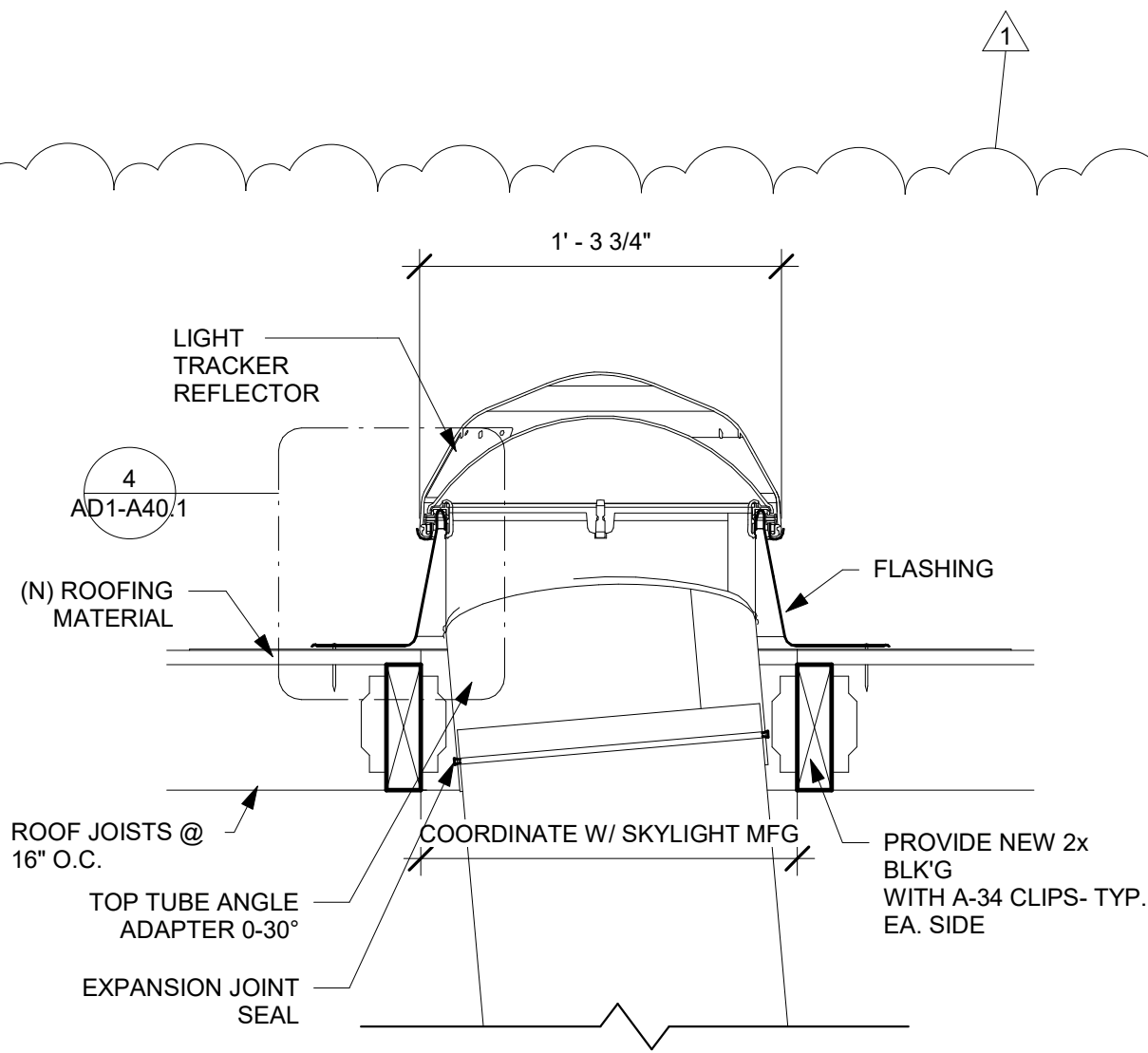
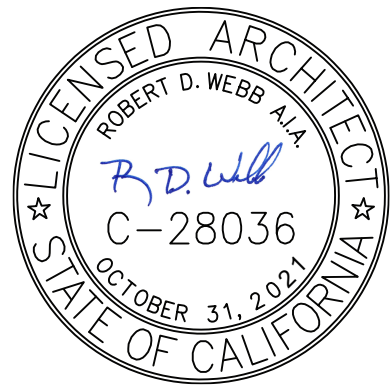
7

14" CEILING ATTACHMENT DTL

3" = 1'-0"

8





14" ROOF DETAIL @ SINGLE PLY

1 1/2" = 1'-0"

2

14" ROOF ATTACHMENT DTL

3" = 1'-0"

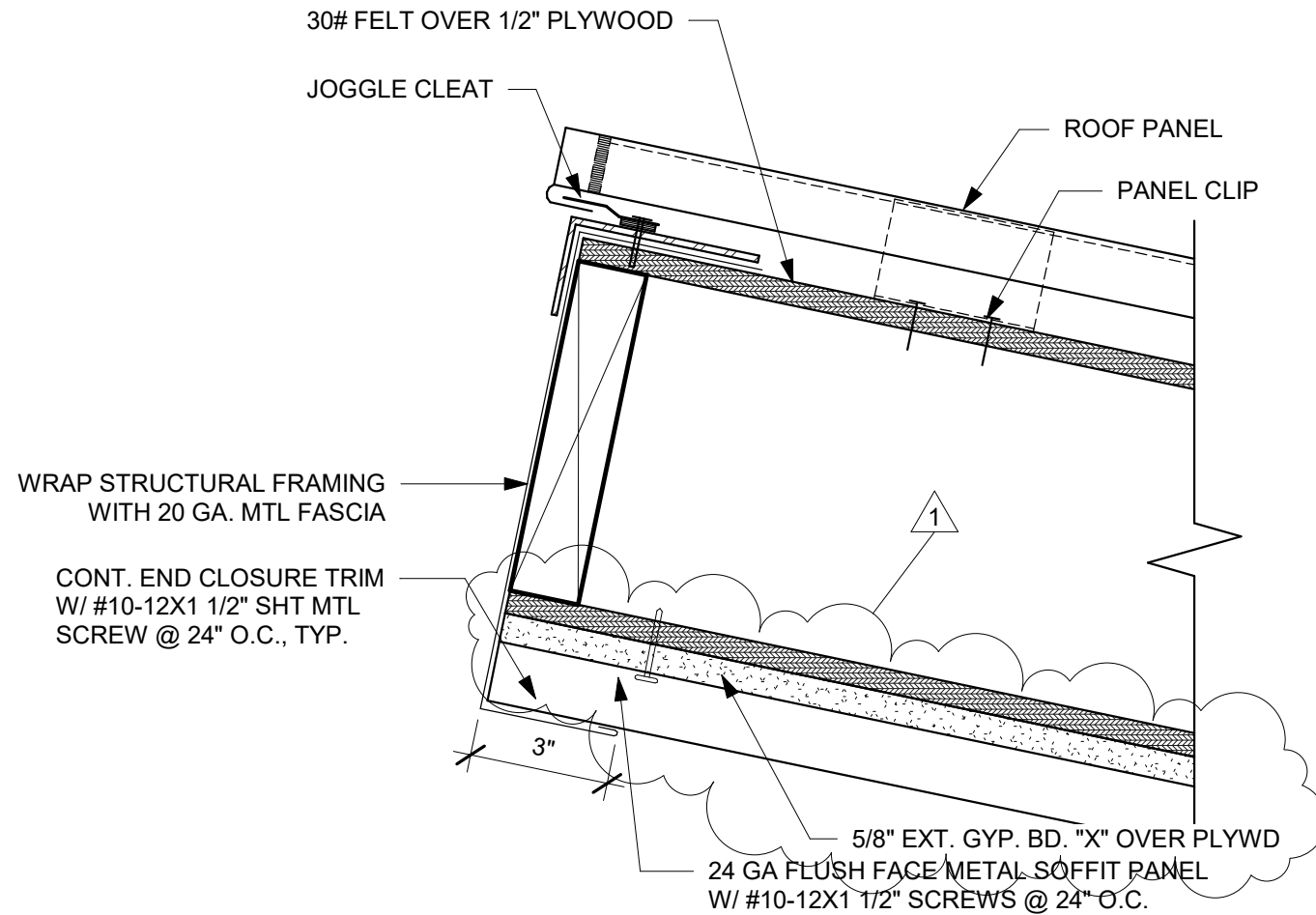
4

SHEET NO.
AD1-A40.1.1

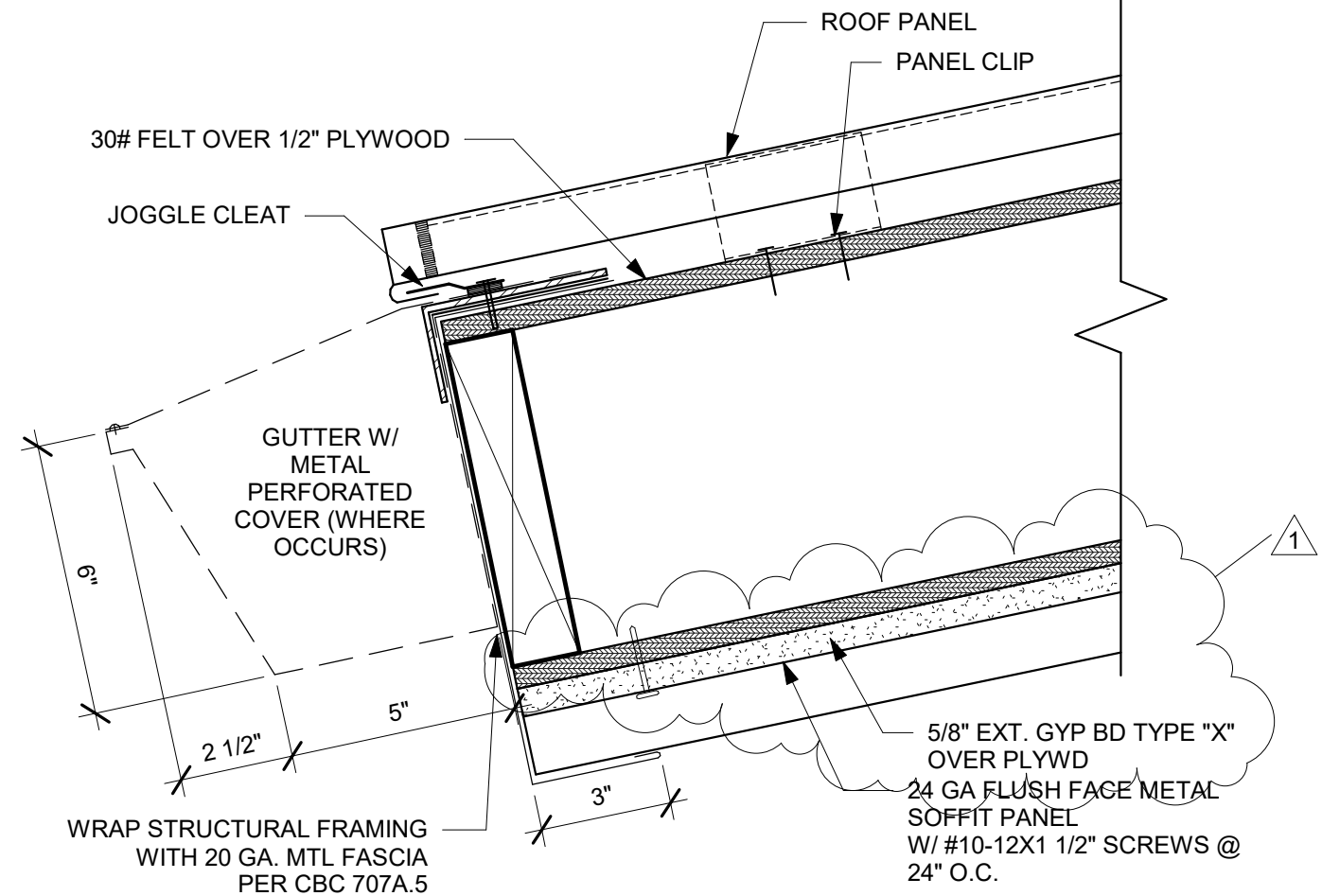
SYCAMORE CANYON ELEM. SCHOOL
LIBRARY RESOURCE CENTER (LRC)
SANTÉE SCHOOL DISTRICT

studiowc
ARCHITECTURE + ENGINEERING

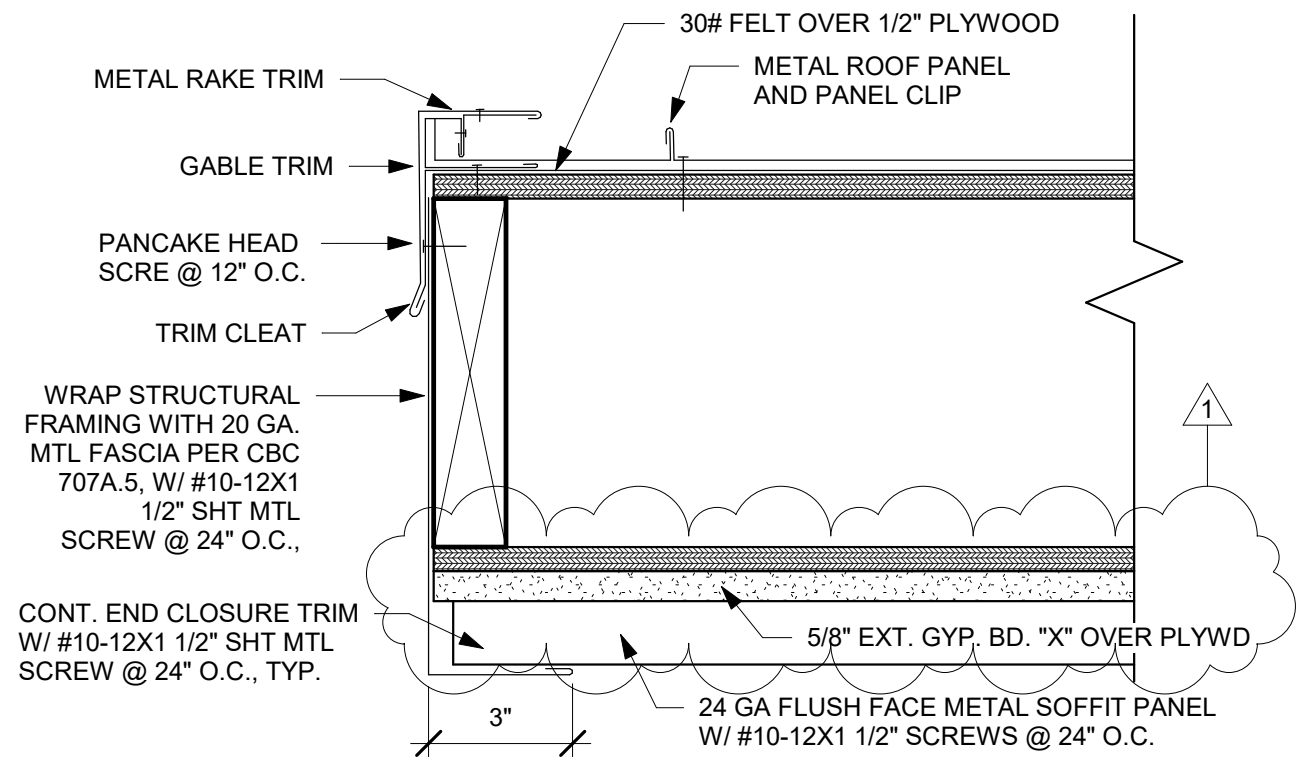
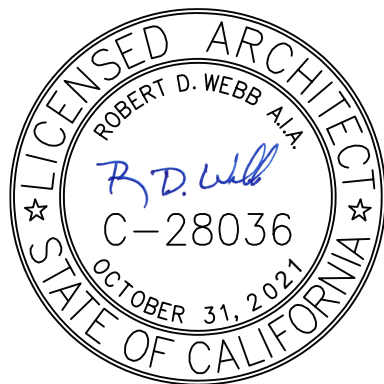
515 Encinitas Blvd. Ste. 201, Encinitas, California 92024
Telephone: (760)753-6800 Fax: (760)452-7541



ROOF EAVE - HIGH SIDE 3" = 1'-0" 20



ROOF EAVE- LOW SIDE 3" = 1'-0" 15



AD1- ROOF RAKE 3" = 1'-0" 23