ACM PANEL SYSTEM

ARCHITECT'S SPECIFICATION

PART 2 PRODUCTS

- 2.01 MANUFACTURERSA. Basis of Design: Reynobond, 4mm FR; at ACM-1.
- B. Basis of Design: Reynobond, 1 inch thick; insulating panel; at ACM-2.
- Substitutions not allowed.
- Contact Reynobond for certified Installers.

2.02 WALL PANEL SYSTEM

C. Certified Installers

- A. Wall Panel System: Metal panels, fasteners, and anchors designed to be supported by framing or other substrate provided by others; provide installed panel system capable of maintaining specified performance without defects, damage or failure.
- Provide structural design by or under direct supervision of a Structural Engineer licensed in Virginia.
- Provide panel jointing and weatherseal using reveal joints and gaskets but no sealant.
 Anchor panels to supporting framing without exposed fasteners.
- B. COMPOSITE METAL PANELS

 1. ACM-1: Composite Metal Panels: Factory-formed, aluminum-faced composite panels
- fabricated from two sheets of 0.020 inch (0.51) thick aluminum facing sheets with metal facings bonded to thermoplastic core, and rout and return joinery.
- a. Thickness: 4 mm nominal.b. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches in any
- c. Panel Core: Fire retardant.
 d. Stiffeners: Manufacturer's standard stiffener as required to meet performance
- requirements.
 e. Face Sheet Surface: Smooth.
- f. Face Sheet Coil-Coated Finish:
 1) Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5 mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
- (a) Colorweld 500.
 2) Color:
- (a) Classic Bronze.3) Unexposed Interior Finish: Manufacturer's standard primer.
- Exposed Trim and Fastener Finish: Match panel finish.
 ACM-2: Insulating Composite Metal Panels: Factory-formed, aluminum-faced composite panels fabricated from two sheets of 0.020 inch (0.51) thick aluminum facing sheets with metal facings bonded to rigid insulating core.
- a. Thickness: 1 inch total thickness.b. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches in any
- direction.
 c. Panel Core: Fire retardant.
- d. Face Sheet Surface: Smooth.
- e. Face Sheet Coil-Coated Finish:
 1) Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5 mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
- (a) Colorweld 500.
 2) Color:
- (a) Classic Bronze at3) Exposed Trim and Fastener Finish: Match panel finish.
- C. SECONDARY METAL FRAMING
 1. Miscellaneous Framing Components, General: Cold-formed metallic-coated steel sheet, ASTM C 645, Grade 50, with ASTM A 653/A 653M, G90 (Z180) hot-dip galvanized zinc
- coating.
 a. Hat Channels: 0.053 inch/16 ga. (1.34 mm) minimum.
- b. Sill Channels: 0.053 inch/16 ga. (1.34 mm) minimum.
- D. ACCESSORIES1. Provide manufacturer's factory-formed clips, shims, flashings, sealants, and tapes for a
- complete installation.

 2. Extruded Trim: Aluminum, minimum thickness 0.060 inch (1.59 mm) for trim and 0.90 inch (2.38 mm) for structural units. Include manufacturer-provided extruded trim for the
- inch (2.38 mm) for structural units. Include manufa following locations and as indicated on Drawings:
- a. Base trim.b. Coping.
- c. Panel installation perimeter.d. Opening perimeters.
- Splines: Match panel material and finish.
 Sealants: Type recommended by composite wall panel system manufacturer for
- application, meeting requirements of Division 07 Section "Joint Sealants."
 a. Dow Corning #795 Silicone sealant. Color to be selected by Architect.
 5. Flashing Tape: 4 inch (102 mm) wide self-adhering butyl flashing tape.
- 5. Flashing Tape: •E. FABRICATION
- E. FABRICATION
 1. General: Fabricate composite wall panels and accessories at factory identical to tested units using manufacturer's standard procedures and processes necessary to meet performance requirements.
- Provide components of composite wall panel system that are products of one manufacturer, including composite panels, gaskets, head and sill trim, bottom weep, base extrusion, and metal copings.
- 2. Composite Panels: Fabricate composite wall panels with extruded aluminum stiffeners requiring no further fabrication or modification in field.
- a. Horizontal Joints: Dry seal, drained and back ventilated.b. Vertical Joints: Pre-formed returns with metal spline and aluminum extrusion
- receptors and extruded drain channels.
 c. Reveals: 0.50 inch (12 mm).
 d. Formed Panel Thickness: 1.0 inch (63.5
- d. Formed Panel Thickness: 1.0 inch (63.5 mm).e. System Thickness: 2.0 inch, including extrusions and excluding shims.

MANUFACTURER DATA SHEETS



LENGTH -0 + 1/4"

PANEL SQUARE +1/8"

PANEL GAUGE +- 8/1000"

BOW + 1/8"

PEEL STRENGTH (ASTM D1781) > 22.5in-lb/in

Standard Panel Size and Color Options

Refer to the Reynobond® Stocking List at www.reynobond.com to review our finished goods stocking colors and sizes or you may contact a sales representative or customer service representative at our toll free number, 800-841-7774.

AVAILABLE WIDTHS: 39.37" (1m) 48" (1.2m) 50" (1.3m) 62" (1.6m)

AVAILABLE LENGTHS: 48" (1.2m) – 243" (6.2m) >243" (6.2m)*

*additional charges and extended lead times apply.

Product Performance

Please reference our engineering properties document at www.reynobond.com for a list of the product's performance to various standards and consult AAP's technical department for additional information. Reynobond® sheets come with a 10-year bond warranty and a 30-year finish warranty for standard architectural finishes. Consult AAP LLC sales for applicable warranties for specific finish systems.

DISCIAIMER:

Laws and building and safety codes governing the design and use of AAP's products, and specifically aluminum composite materials, vary widely. It is the responsibility of the owner, the architect, the general contractor, the installer and the fabricator/transformer, consistent with their roles, to determine the appropriate materials for a project in strict conformity to all applicable national, regional and local building codes and regulations. REYNOBOND® FR AND AS3000B HAVE SUCCESSFULLY PASSED US NFPA 285, E84 AND CANADA S134, S102 TESTS AS A PART OF AN ASSEMBLY. ENSURE THE PRODUCT IS USED IN A SYSTEM THAT COMPLIES WITH ALL APPLICABLE REGULATIONS. REYNOBOND® PE IS COMBUSTIBLE; IT COULD CATCH FIRE AND BURN. ANY LABORATORY TESTING INFORMATION PROVIDED BY AAP LLC APPLIES ONLY TO THE PARTICULAR PRODUCT OR ASSEMBLY TESTED AND DOES NOT NECESSARILY REPRESENT HOW PRODUCTS WILL ACTUALLY PERFORM IN USE, REPORTS AND TEST DATA CORRESPONDING TO A PARTICULAR TESTED PRODUCT SAMPLE OR ASSEMBLY ARE NOT A GUARANTEE THAT THE SAME PRODUCT OR ASSEMBLY WOULD ALWAYS ACHIEVE THE SAME TEST RESULT.





Color Consistency

Arconic Architectural Products LLC (AAP) is aware that finish performance and color consistency are of utmost importance to its customers. Painted Reynobond® and Reynolux® panels are coated in a coilcoating process with the most durable coatings available for the building and construction industry. Coilcoating offers excellent coverage, uniformity and durability in a coating. Yet, due to this process and to the composition of some of our finishes, variances in color can and do occur and are visible to the human eye. Moreover, industry tolerances for the coil coating help ensure minimal variations within a specific color finish.

Color Families

Some time ago, AAP internally implemented a color family process for all of its Colorweld® 500 finishes for Reynobond® panels. AAP's Quality Control department reviews each painted coil by color and establishes which color family it matches, or creates a new color family for it if needed. This process has greatly improved AAP's ability to match new orders with previous orders as well as with orders containing multiple widths.

Directionality

General Rule – Install panels with directional arrows pointing in the same direction.

Explanation – Paint is applied to Reynobond® and Reynolux® panels by a reverse-roll coating process. As the coil of aluminum is unwound through the line, the roller applies the colored coating across its width. Due to the movement of the metal across the roller, coatings may display some directionality. Directionality is most noticeable in mica and metallic finishes. Mica and metallic flake paint systems have properties that reflect, refract and absorb light. The angle that light strikes the surface of the Reynobond® panel versus the visual angle strongly influences the viewer's perceived color. Mica paints refract light, and the highest refraction occurs when the light is near 90° to the panel surface. Metallic paints reflect light, and contain metallic flakes which all settle in a preferred direction based upon the coil-coating process. The perceived reflectance is least when the light strikes closet to 90° from the panel surface. Paints containing both mica and metallic flakes can appear to change color and lose brightness depending on the light source's incident angle. Best Practice – It is always necessary to install panels in the same direction on a building's surface.

Batch Variances General Rule – Notify AAP when ordering panels to match to a previous order.

Explanation – Although there are tolerances in place for the range of color variation within a specific color, these tolerances allow for variations that are noticeable to the human eye. AAP has implemented a color family inventory system (see below) to identify matching panels within a specific color. It is important that customers notify AAP when their order is to be used on the same building as a previous order.

Best Practice – Order all panels at the same time for each project.

General Rule – Verify colors match when ordering different widths for the same project.

Explanation – Different width coils will likely be painted at different times, and may utilize different batches of paint. AAP classifies its color finishes by color family in an attempt to provide the closest visual match possible. AAP will do its best to ensure that colors of different widths come from the same color family, when both widths are to be used on the same building surface.

Best Practice - Order the same color in the same width for each project



ARCONIC ARCHITECTURAL PRODUCTS LLC

50 Industrial Boulevard

Tel. 800 841 7774

EC 99603-009

www.revnobond.com

Eastman, GA 31023-4129

PROPOSED COLORS

(LIST OF SAMPLES REQUESTED FOR FINAL CONFIRMATION; COLORS MAY VARY BY MANUFACTURER)

Colorweld® 500



*Color is a 3-coat solid finish and may be subject to a higher price. Please consult you Regional Sales Manager for additional pricing.

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE LEFT).

BRICK VENEER

ARCHITECT'S SPECIFICATION

PART 2 PRODUCTS 2.01 CONCRETE MASONRY UNITS A. Concrete Block: Refer to the structural drawings and Section 04 20 00 specifications for

materials.

2.02 BRICK UNITS A. Manufacturers:

- Belden Brick Company, Canton, OH
- a. Modular Sienna Bld Velourb. Made at Sugarcreek Plant 6.
- Rectangular Facing Brick: ASTM C 216, Type FBX, Grade SW.
 a. Nominal Size: 8 inches by 4 inches by 2.25 inches.
- a. Nominal Size: 8 inches by 4 inches by 2.25 inches.b. Special Shapes: Provide solid units where orientation would expose frog holes.

3. Substitutions: Not permitted.2.03 MORTAR MATERIALS

- A. Masonry Cement: ASTM C91/C91M _____.
- Type N: For use above grade masonry veneer.
 Type M: For below grade masonry veneer.
- Colored Mortar: Premixed cement as required to match Architect's color sample.
 a. Color: Submit manufacturer's color selection kit for final selection by Architect.
- B. Hydrated Lime: ASTM C207, Type S.C. Mortar Aggregate: ASTM C144.
- D. Grout Aggregate: ASTM C404.
- E. Water: Clean and potable.

coverage on each exposure.

F. Accelerating Admixture: Nonchloride type for use in cold weather.

2.04 REINFORCEMENT AND ANCHORAGE A. Joint Reinforcement: Truss type; ASTM A1064/A1064M steel wire, hot dip galvanized after fabrication to ASTM A153/A153M, Class B; 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not more than 1 inch and not less than 1/2 inch of mortar

- 1. Manufacturers:

 a. Hohmann & Barnard, Inc (including Dur-O-Wal brand); ____: www.h-b.com/#sle.
- a. Hohmann & Barnard, Inc (including Dur-O-Wal brand); ____: www.h-b.com/#sle.
 b. WIRE-BOND; 270 x 12" ladder and 270 x 8" ladder: www.wirebond.com/#sle.
 c. Substitutions: See Section 01 60 00 Product Requirements. Manufacturers limited
- to Hohmann & Barnard, Wire-Bond and Dur-O-Wall.

 B. Masonry Veneer Anchors: 2-piece surface mounted anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M,
- Class B.

 1. Anchor plates and ties to be provided by under this section.
- a. Size of tie to be calculated by mason under this section.b. Anchor tie to be installed by mason during installation of brick.
- Manufacturer:
 a. Hohmann & Barnard, Inc; _____: www.h-b.com/#sle.
 1) HB-5213-2.5, 523 Brass Expansion Bolt, Hot-Dip Galvanized, 2 1/2 inch
- Backplate, 14 Gauge, 3/16 inch by 5 inch Leg Hook Hot-Dip Galvanized.

 2) Spacing: 16 inches by 16 inches.
- 2.05 LINTELS:

 A. Refer to also to the Structural Drawings.
- B. Loose Lintels and Fixed Lintels to be hot-dip galvanized. Exposed portions of lintels to be field

membrane and adhesives.

painted. Refer to Exterior Paint Schedule for paint types. Refer to the Drawings for Paint colors.

2.06 OTHER PRODUCTS

A. Stainless Steel/Polymer Fabric Flashing: ASTM A240/A240M; 2 mil type 304 stainless steel

- sheet bonded on one side to one sheet of polymer fabric.

 1. Manufacturers:
- Hohmann & Barnard, Inc. Mighty-Flash SA, Self-Adhering Stainless Steel Composite Flashing, Roll Width 16 inches.
- B. Factory-Fabricated Flashing Corners and Ends: Stainless steel.1. Manufacturers:
- a. Hohmann & Barnard, Inc; ____: www.h-b.com/#sle.
 1) Stainless Steel Corners & End Dams; 26 Gauge/18 mil; Type 304.
- Termination Bars: Stainless steel; compatible with membrane and adhesives.
 a. Manufacturers:
 1) Hohmann & Barnard, Inc; T1 Termination Bar: www.h-b.com/#sle.
- (a) Stainless Steel Type 304.
 (b) 1/8 inch by 1 inch wide.
- Drip Edge: Stainless steel; compatible with membrane and adhesives.
 Manufacturers:
 - Hohmann & Barnard, Inc; FTS Standard Drip Plate with Foam-Tite Seal; www.h-b.com/#sle.
- (a) Provide Inside and Outside Corner Pieces.
 (b) Width: 2 1/2 inch.
 4. Lap Sealants and Tapes: As recommended by flashing manufacturer; compatible with
- a. Product to be compatible with air and moisture barrier at substrate coating as specified elsewhere.
- Metal Copings: Refer to Section 07620 Sheet Metal Flashing and Trim.
 ACCESSORIES
- Joint Filler: Closed cell polyvinyl chloride; oversized 50 percent to joint width; self expanding; in maximum lengths available.
 a. Manufacturers:
- Hohmann & Barnard, Inc; NS Closed Cell Neoprene Sponge: www.h-b.com/#sle.
- (a) For use at vertical brick to brick control joints.(b) For use at vertical brick to fixed structure joints.
- (c) For use at top horizontal brick course to underside of fixed steel lintels.(d) For use at top horizontal brick course joint to underside of fixed structural
- Cavity Drainage: Provide continuous mortar collection mesh bands.
 a. Manufacturer: Hohmann & Barnard, Inc.
 1) Product: Mortar Trap, 2 inch width.
- b. Install at all weep hole lines, bottoms of cavities, and over3. Weeps: Molded PVC grilles, insect resistant. Hohmann & Barnar
- a. Manufacturer: Hohmann & Barnard, Inc.
 1) Product: QV Quadro Vent.
 b. Color(s): As selected by Architect from manufacturer's full range.
- Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials. Use recommended by manufacturer of masonry units.
 a. Vana Trol is an approved product.
- D. MORTAR MIXES
 1. Mortar for Unit Masonry: Cement-lime Mortars per ASTM C 270 or BIA M1-88, Proportion Specification.
- E. METAL COPINGS and METAL COUNTERFLASHING

 1. Sheetmetal carrier: For use at mid-span through wall flashings where no other support
- Sheetmetal carrier: For use at mid-span through wall flashings where no other support for the through wall flashing is provided by the assembly. 24 gauge, galvanized sheetmetal. Extend up cmu/sheathing 4 inches and anchor at 16 inch spacing. Angle across cavity at 1:1 slope. Extend into masonry minimum 2 inches. Provide in locations where cavity
- width is greater than 2 inches.

 2. Refer to Section 07 62 00 Sheet Metal Flashing and Trim.

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE LEFT).

MANUFACTURER DATA SHEETS

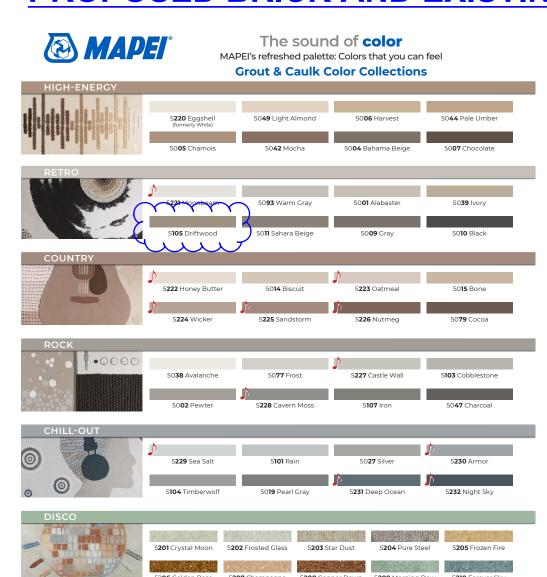
TEST REPORT CLEMSON 100 Clemson Research Blvd. Anderson, SC 29625 (864) 656-1094 THE BISHOP MATERIALS LABORATORY Fax: (864) 656-1095 www.brickandtile.org Results of Tests on brick Conducted in accordance with C67/C67M - 23 Standard Test Methods for Sampling and Testing Brick 08/25/2023 The Belden Brick Company P. O. Box 430 Sampled Date: 8/8/2023 Sugarcreek, OH 44681 Received Date: 8/8/2023 330-456-0031 Fired Date: 8/8/2023 330-456-2694 Product Code: Report Number: 11935-29718 Lot Number: Description: PLT 6 FIRECLAY & SHALE W/ADDITIVE (FACE) **Absorption** Average 24 Hour Cold Water (%) 5.2 5.0 5.1 4.9 6.4 6.3 6.8 6.5 6.5 6.5 5 Hour Boiling Water (%) Saturation Coefficient 0.74 0.74 0.77 0.76 0.78 **Compressive Strength** *psi* 14,960 14,210 14,700 15,010 14,010 14,580 8/10/2023 8 9 10 IRA (Oven Dried Method) g/min/30 in. 2 10.6 12.3 10.0 10.9 11.0 10.9 8/21/2023 Efflorescence Test Date 8/21/2023 Not Not Not Not Efflorescence Detection Effloresced Effloresced Effloresced Effloresced The brick represented by the test results shown here comply with the physical property requirements of the standards listed below: ASTM C216 - 22 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale) Grade: SW, MW

PROPOSED COLORS (LIST OF SAMPLES REQUESTED FOR FINAL CONFIRMATION; COLORS MAY VARY BY MANUFACTURER)





PROPOSED BRICK AND EXISTING BUILDING



PROPOSED GROUT

GNT-1: GRANITE VENEER (TO MATCH EXISTING)

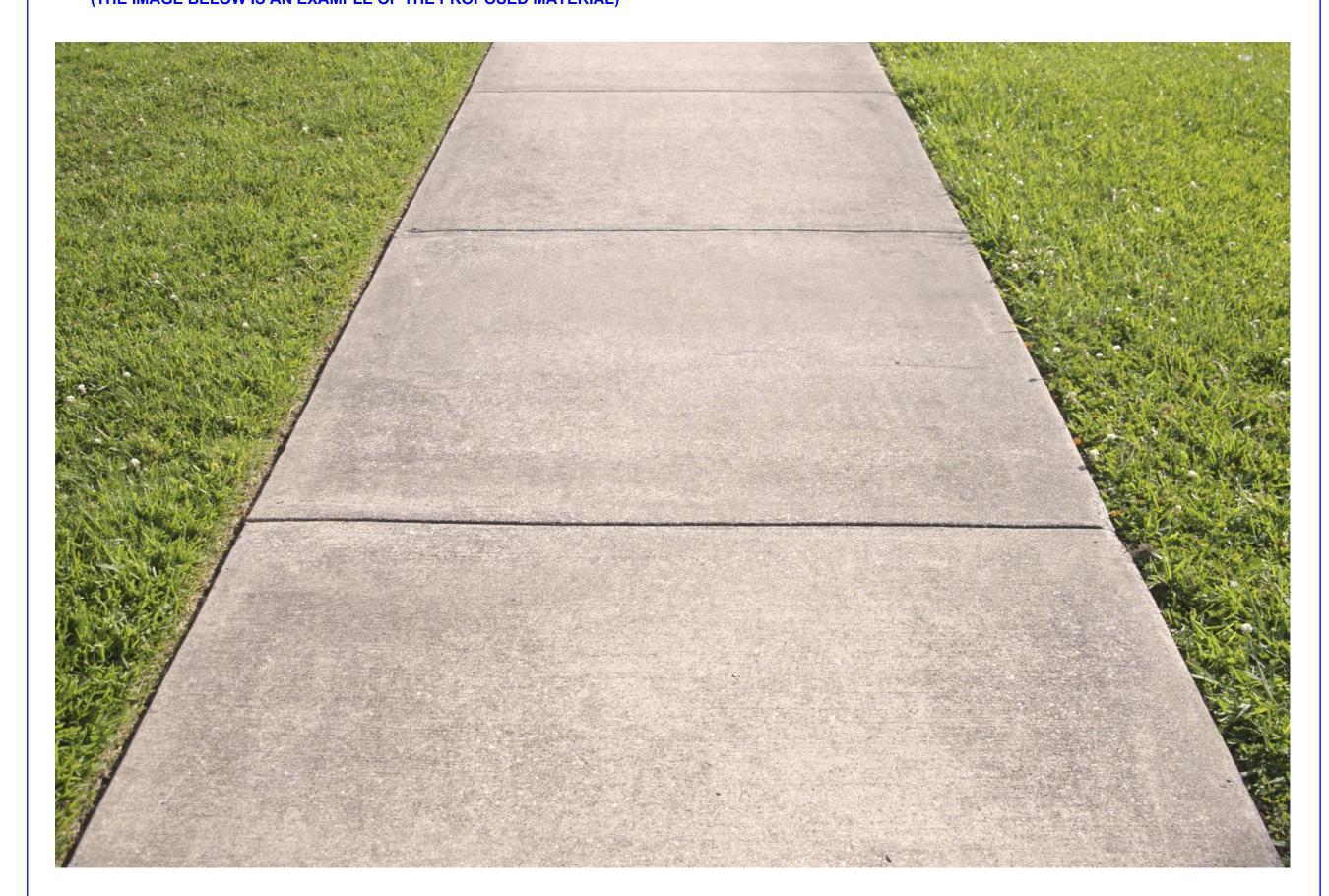
REFERENCE IMAGES
(THE IMAGES BELOW ARE OF THE EXISTING MATERIAL ON SITE)



REGARDING SAMPLES
BECAUSE EXISTING MATERIAL IS BEING REPURPOSED FOR THE PROPOSED CONSTRUCTION, PROCURING SAMPLES IS IMPRACTICAL. THE PHOTO ABOVE WAS TAKEN OF THE EXISTING MATERIAL WHICH IS TO BE REUSED ON SITE. IF ANY NEW MATERIAL IS NEEDED TO COMPLETE THE PROPOSED CONSTRUCTION, SAMPLES WILL BE SUBMITTED TO THE ARCHITECT (AND SUBSEQUENTLY THE BAR) FOR APPROVAL.

CONCRETE SIDEWALK

REFERENCE IMAGES (THE IMAGE BELOW IS AN EXAMPLE OF THE PROPOSED MATERIAL)



REGARDING SAMPLES
BECAUSE THE PROPOSED CONSTRUCTION IS REQUIRED TO MATCH EXISTING AND ADJACENT MATERIAL, PROCURING SAMPLES IS IMPRACTICAL. AS NOTED IN THE ARCHITECT'S SPECIFICATIONS, SAMPLES ARE REQUIRED PRIOR TO FINAL CONSTRUCTION; THESE SAMPLES CAN BE SUBMITTED TO THE BAR, IF NEEDED, ONCE THEY RECEIVE ARCHITECT APPROVAL. 1. Stainless Steel Tubing: ASTM A554, Type 304, 16-gauge, 0.0625-inch minimum metal

A. Welded and Brazed Joints: Make visible joints butt tight, flush, and hairline; use methods that

a. Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M.

abrasions, and surface blemishes to match sheet or tube.

2. Protect mechanical finishes on exposed surfaces from damage.

Remove tool marks, die marks, and stretch lines before finishing.

1. Complete mechanical finishes before fabrication. After fabrication, finish joints, bends,

3. Appearance: Limit variations in appearance of adjacent pieces to one-half of range

Install components within range of approved samples to minimize contrast.

A. Eschucheon Plates: Nonweld Mechanical Fittings for Stainless Steel Railings: Slip-on,

1. Eschucheon Plates at base of newels to match: FHC PR19CV in style and shape;

C. Anchors and Fasteners: Provide anchors, fasteners, and other attachment devices required to

Install components plumb and level, accurately fitted, free from distortion or defects, and with

B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; joints and seams

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

C. Notify Architect immediately of conditions that would prevent satisfactory installation.

D. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush

galvanized malleable iron castings, for Schedule 40 pipe, with flush setscrews for tightening by

represented in approved samples. Noticeable variations in same piece are not acceptable.

avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.

2.02 MATERIALS

2.03 FABRICATION

2.04 FINISHES

2. Welded Joints:

B. Stainless Steel Finishes:

ground smooth.

3.02 INSTALLATION

attach to structure.

C. Anchor securely to structure.

countersunk fastenings.

2. Directional Satin: No.4.

A. Stainless Steel Components: ASTM A666, Type 304.

1. Ease exposed edges to small uniform radius.

standard hex wrench, no bolts or screw fasteners.

B. Verify field dimensions of locations and areas to receive work.

A. Install in accordance with manufacturer's instructions.

tight joints, except where necessary for expansion.

D. Do not proceed with work until detrimental conditions are corrected.

thickness, 1-1/2-inch diameter.

A. General: Comply with NAAMM AMP 500-06.

SECTION 05 73 00 DECORATIVE METAL RAILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Stainless Steel railing systems.

B. Concealed concrete footings for railing posts below porous paving.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Placement of anchors in concrete.

1.03 REFERENCE STANDARDS

- A. ASTM A276/A276M Standard Specification for Stainless Steel Bars and Shapes; 2016.
- B. ASTM A554 Standard Specification for Welded Stainless Steel Mechanical Tubing; 2015. C. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel
- Sheet, Strip, Plate, and Flat Bar; 2015. D. ASTM E935 - Standard Test Methods for Performance of Permanent Metal Railing Systems
- and Rails for Buildings; 2013. E. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- F. AWS D1.6/D1.6M Structural Welding Code Stainless Steel; 2007.

G. NAAMM AMP 500-06 - Metal Finishes Manual; 2006.

A. Preinstallation Meeting: Convene preinstallation meeting one week before starting work of this 2.05 ACCESSORIES section. Attendees include:

- Contractor. 2. Architect.
- Owner's representative. 4. Other subcontractors of adjacent work.

1.04 ADMINISTRATIVE REQUIREMENTS

1.05 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements for submittal procedures. B. Product Data: Submit manufacturer's product data, including description of materials,
- components, finishes, fabrication details, glass, anchors, and accessories.
- C. Shop Drawings: Indicate railing system elevations and sections, details of profile, dimensions, PART 3 EXECUTION sizes, connection attachments, anchorage, size and type of fasteners, and accessories. 3.01 EXAMINATION Indicate anchor and joint locations, brazed connections, transitions, and terminations. 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld
- 2. Include design engineer's seal and signature on each sheet of shop drawings. D. Shop Drawings: Concrete footing details for railings located over porous pavers with granular
- subbase. E. Samples: Submit twoof each item below for each type and condition shown.
- 1. Railing: 12-inch long section of each railing member, including top rails and posts; show color, finish, and connection details. Show welded connection of intermediate post to main railing, finished.
- F. Test Reports: Submit test reports from independent testing agency showing compliance with
- specified design and performance requirements. G. Manufacturer's Instructions: Indicate installation.
- H. Designer's qualification statement.
- I. Fabricator's qualification statement. J. Installer's qualification statement.
- K. Specimen warranty.

L. Executed warranty.

1.06 QUALITY ASSURANCE

A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in Virginia or personnel under direct supervision of engineer. 1.07 MOCK-UPS

A. See Section 01 40 00 - Quality Requirements for additional requirements.

- B. Provide mock-up of railing system, freestanding center rail, and guardrail, 4 feet long by 4 feet wide, indicating each type of material, cladding, and finish. Illustrate finished bends and welded connections.
- C. Locate where directed.
- D. Mock-up may not remain as part of work. 1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in factory-provided protective coverings and packaging.

- B. Protect materials against damage during transit, delivery, storage, and installation at site. C. Inspect materials upon delivery for damage. Replace damaged items.
- D. Prior to installation, store materials and components under cover in dry location.

1.09 WARRANTY A. Manufacturer's Warranty: Manufacturer's standard 3-year warranty against defects in

materials, fabrication, finishes, and installation commencing on Date of Substantial Completion; complete forms in Owner's name and register with manufacturer. PART 2 PRODUCTS

2.01 RAILING SYSTEMS

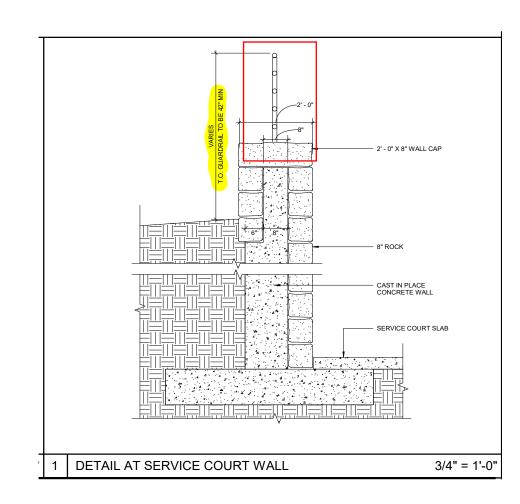
- A. General: Factory- or shop-fabricated to suit project conditions, for proper connection to building structure, and in largest sizes practical for delivery to site.
- B. Performance Requirements: Applying loads simultaneously not required; design and fabricate railings and anchorages to resist loads without failure, damage, or permanent set, including: Lateral Force: 75 lb minimum, when tested in accordance with ASTM E935. 2. Distributed Load: 50 lbf/ft minimum, applied vertically and horizontally at top of handrail,
- when tested in accordance with ASTM E935. 3. Concentrated Loads: 200 lb minimum, applied to handrail horizontally and vertically, in
- accordance with ASTM E935. C. Joints: Fully welded, ground smooth, and with finish resurfaced.
- D. Metal Railing: Engineered, post-supported railing system with metal infill.

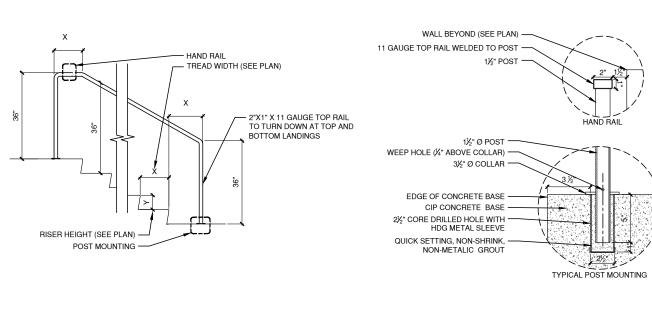
without screw holes.

HQ1 AUDITORIUM

- Configuration: Guardrail only and handrail only..
- 2. Top Rail: 1-1/2-inch IPS / 1.9-inch OD diameter stainless steel pipe or tube 3. Grip Rail: Round, stainless steel, 1-1/2-inch diameter. 4. Decorative Stainless Steel Flanges for Embedded Posts: Circular, collared cover plate

ARCHITECT'S DETAILS

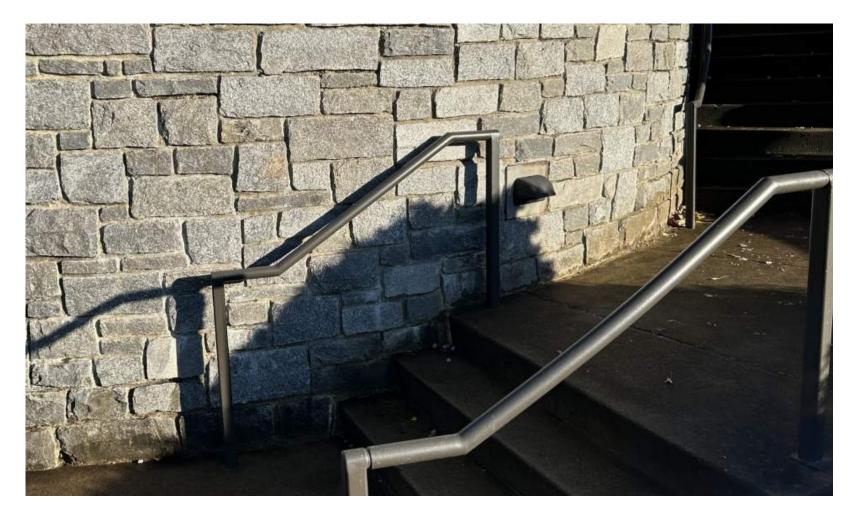


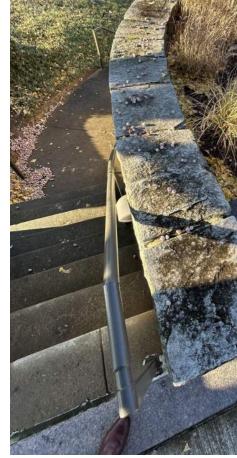


SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION

HANDRAIL

REFERENCE IMAGES (THE IMAGES BELOW ARE SIMILAR IN COLOR/STYLE/SPECIFICATION)





Scale: 1/2" = 1'-0"

REGARDING SAMPLES

BECAUSE THE PROPOSED HANDRAILS ARE CUSTOM-DESIGNED AND FABRICATED, SAMPLES CANNOT BE PROVIDED UNTIL THE HANDRAIL HAS BEEN ENGINEERED BY THE SELECTED SUBCONTRACTOR. IF NEEDED, THE REQUIRED HANDRAIL SAMPLES CAN BE SUBMITTED TO THE BAR UPON RECEIPT AND ARCHITECT'S APPROVAL.

ARCHITECT'S SPECIFICATIONS

PART 2 PRODUCTS

- 2.01 MANUFACTURERS
- A. Basis of Design: See below under description of products.
- B. Acceptable Manufacturers: YKK AP America Inc; Product YCW 750 OG: www.ykkap.com.
- a. Locations: West curtain wall and entrance; Courtyard curtain wall and entrance. 2. YKK AP America Inc; Product YCW 750 SSG: www.ykkap.com. a. Locations: South curtain wall with sunscreens.

2.02 CURTAIN WALL

- A. Aluminum-Framed Curtain Wall: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices. 1. Exterior Component Finish of exterior exposed to weather system: High performance

 - a. Factory finish surfaces that will be exposed in completed assemblies. b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in
 - completed assemblies, including joint edges. c. Coat concealed metal surfaces that will be in contact with cementitious materials or
- dissimilar metals with bituminous paint. 2. Exterior Interior Component Finish: Kynar 500, 70% coating. a. Color: Custom color to match coating type, color and finish of Composite Wall
- 3. Provide flush joints and corners, weathersealed, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for imposed loads.
- 4. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
- 5. Maintain continuous air barrier and/or vapor retarder seal throughout assembly, primarily in line with inside pane of glazing and inner sheet of infill panel and heel bead of glazing
- B. Water Penetration Resistance: No uncontrolled water on indoor face when tested in accordance with ASTM-E-381 utilizing the following differential test pressure: 15 lbf/sq ft.
- C. Acoustical Performance Requirements: Sound Attenuation: STC shall not be less than 29, minimum, from exterior to interior. 2. Test Method: ASTM E90, with calculation in accordance with ASTM E413.

2.03 ENTRY DOORS A. Aluminum framed system; 6063-T6 alloy.

- B. Product; YKK; Medium style doors. Stile size to be confirmed by the hardware to be incorporated on the door.
- 1. Finish: Exterior doors to match curtainwall framing. C. Stile and Rail Aluminum-Framed Glass Entrances:
- Door size: As indicated. Stile dimensions: 3.5 inches.
- Top rail dimensions: 3.5 inches.
- 4. Muntin dimension: 2 5/16 inched as indicated at intermediate rails. Bottom rail dimension: 6.5 inches.
- 6. Glazing provisions: Flush stops with EPDM glazing gaskets, interior glazed.
- a. Thickness: 1 inch insulating glass panel to match adjacent curtain wall glazing. Mullions: Types, configurations, and dimensions as indicated on the drawings.
- Door Hardware: Refer to Section 08 71 00 and associated schedules.
- 9. Glazing: Refer to Section 08 80 00. Closer head types
- a. Fully concealed closer where indicated. b. Fully concealed auto operator in custom head box frame where indicated. Head box
- by curtainwall manufacturer. Width to match door frame. Finish to match custom color of curtainwall.
- 1) Width of head box: Match overall width of door jamb.
- 2) Height of head box: 6 inches. 11. Continuous Hinges at entrance doors:
- a. Finish: 1) To match curtainwall.

2.04 COMPONENTS

- A. Outside glazed, with pressure plate and mullion cover, where indicated. Provide System that will permit exterior or interior glazing.
- B. Aluminum Framing Members: Tubular aluminum section, 6063-T6 alloy, drainage holes and internal weep drainage system. 1. Cross-Section: 2 1/2 x 7 1/2 inch nominal dimension. Refer to drawings for locations of
- 2. Structurally Reinforced Members: Extruded aluminum with internal reinforcement of
- structural steel member where required. 3. Design of system depth and reinforcing to be provided by a structural engineer licensed in
- the Commonwealth of Virginia. 4. Thickness: All vertical and horizontal extrusion to have a Minimum thickness of: 0.093
- C. Exterior Mullion-Mounted Sunscreen System:
- YKK AP ThermaShade Aluminum Sun Shade System. a. All structural components and attachment hardware shall be concealed. b. Sunshade anchor must provide a continuous thermal barrier by means of a poured and debridged pocket consisting of a two-part, chemically curing high density
- employing non-structural thermal barriers are not acceptable. c. Finish: High Performance Organic Coating. Fluoropolymer Type, Factory applied

polyurethane which is bonded to the aluminum YKK AP ThermaBond Plus. Anchors

- two-coat 70% Kynar resin by Arkema, fluoropolymer based coating system. d. Color: Custom coating color to match curtainwall system.
- e. Size: 24 inch deep by 5 inch high. f. Airfoil: 3-1/2 inch.
- g. Outrigger: Rounded type.
- D. Infill Panels: Insulated, aluminum sheet face and back, with edges formed to fit glazing channel
- 1. Refer to Section 07 42 43 Composite Wall Panels for Face Sheets. Core: Glass fiber insulation core with R-value of
- 3. Thickness: 1 inch total. 2.05 MATERIALS
- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sheet Aluminum: ASTM B209/B209M. C. Structural Supporting Anchors Attached to Structural Steel: Design for bolted or welded attachment as required by project conditions.
- D. Structural Supporting Anchors Attached to Reinforced Concrete Members: Design for welded attachment to weld plates embedded in concrete.
- manufacturer. F. Exposed Flashings: 0.032 inch thick aluminum sheet; finish to match framing members.

E. Fasteners: Stainless steel; concealed type as required or recommended by curtain wall

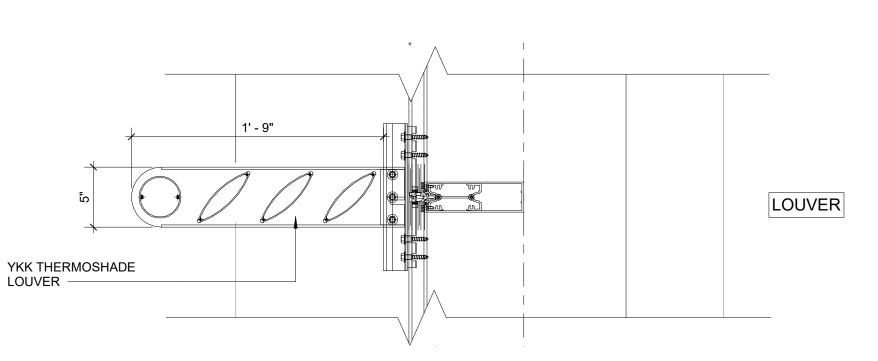
- G. Concealed Flashings: 0.018 inch thick galvanized steel. H. Firestopping: See Section 07 84 00.
- I. Perimeter Sealant: Type 1 specified in Section 07 90 05.
- J. Special Extrusions:

MATERIALS AND MANUFACTURERS SPECIFICATIONS

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE ABOVE).

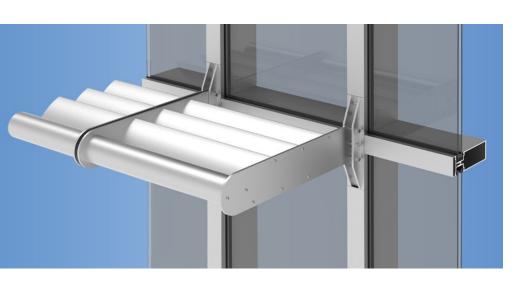
ARCHITECT'S DETAILS



REFERENCE IMAGES
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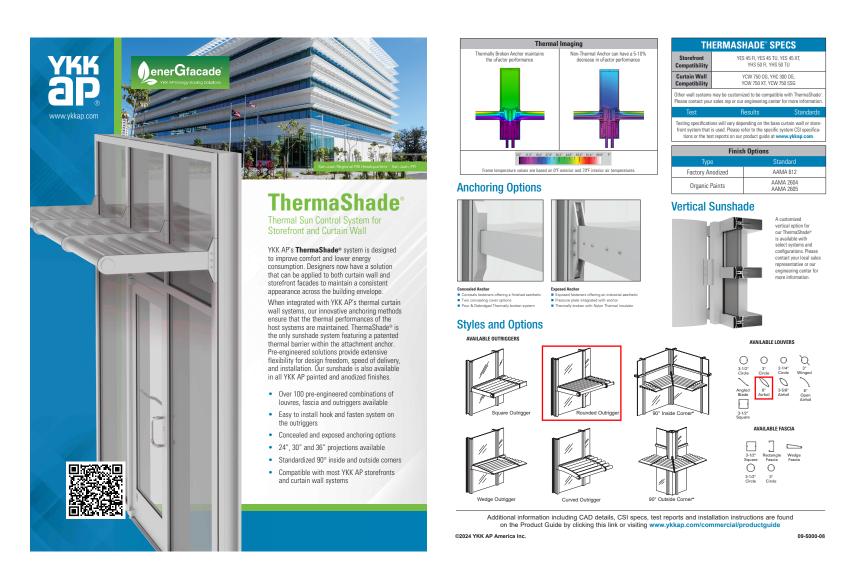


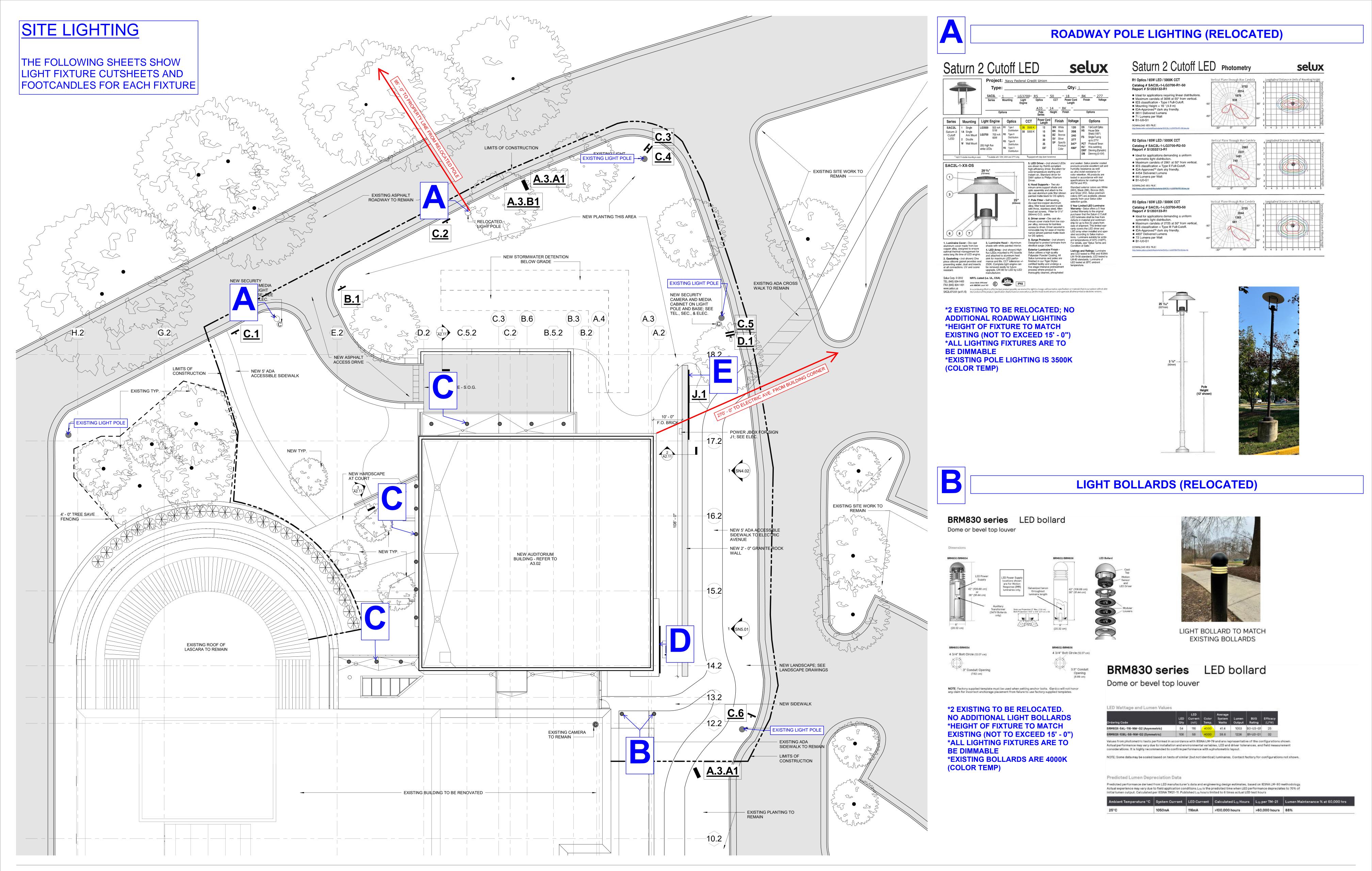
CURTAIN WALL & LOUVER



MANUFACTURER DATA SHEETS







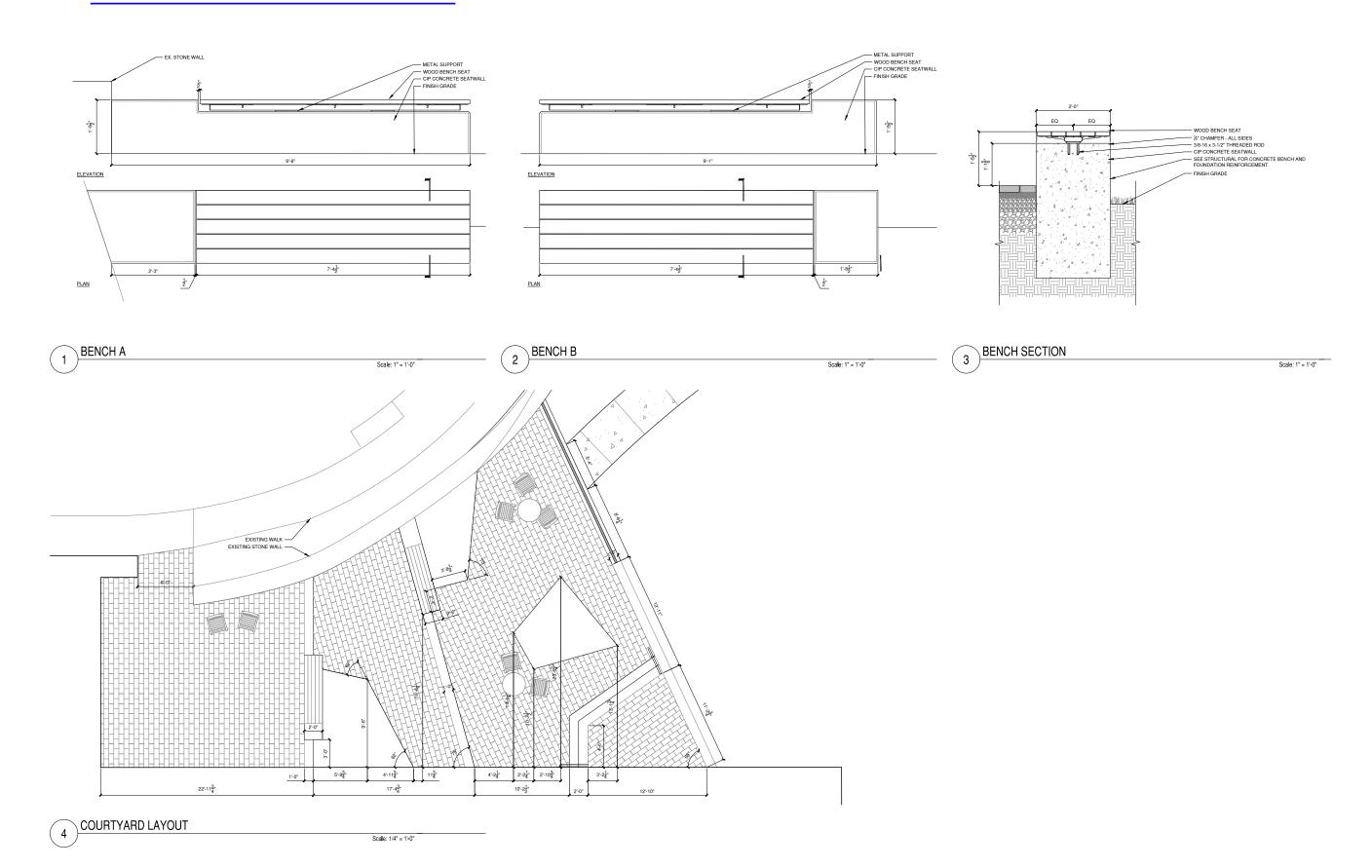
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ASD SKY

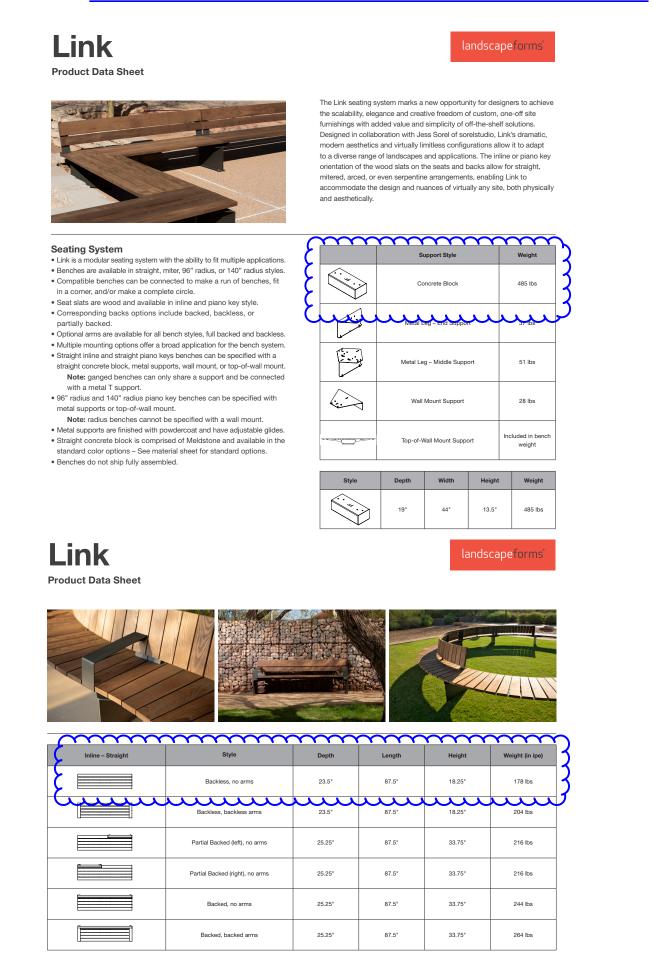
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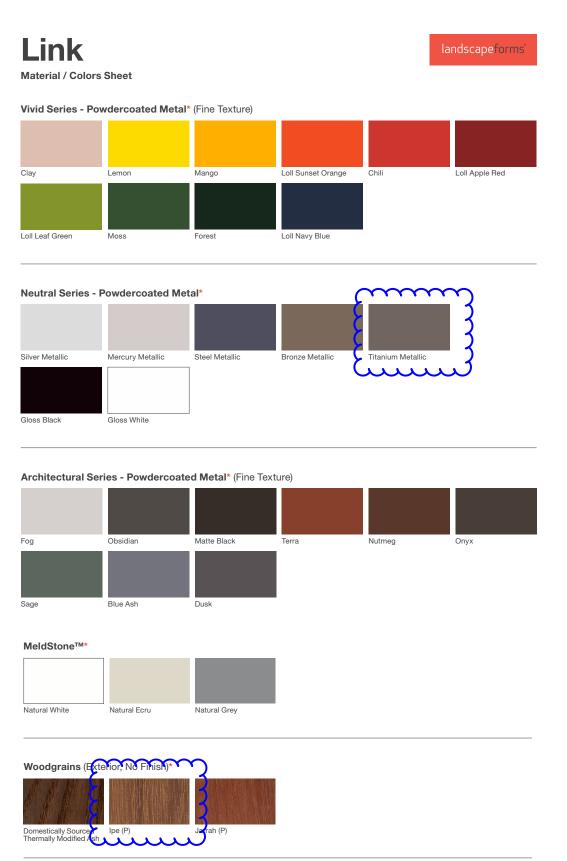
INTEGRATED PLANTER/BENCH

ARCHITECT'S DETAILS

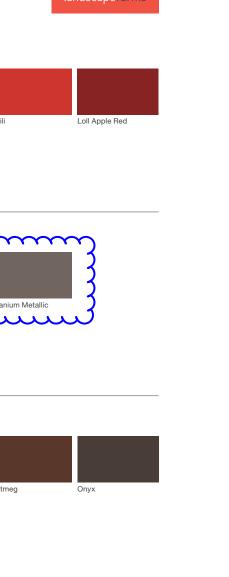


MANUFACTURER PRODUCT DATA





Woodgrains (Interior, LF-80 Finish)*



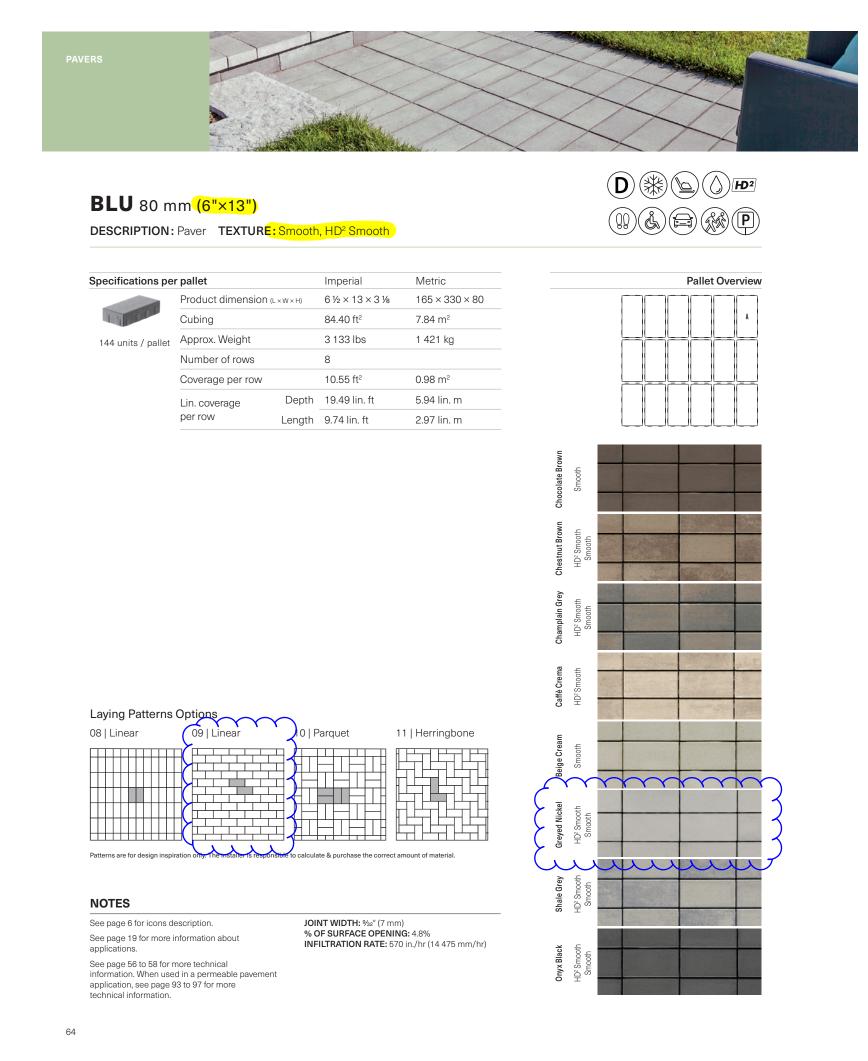




REFERENCE IMAGES
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LANDSCAPE PAVERS

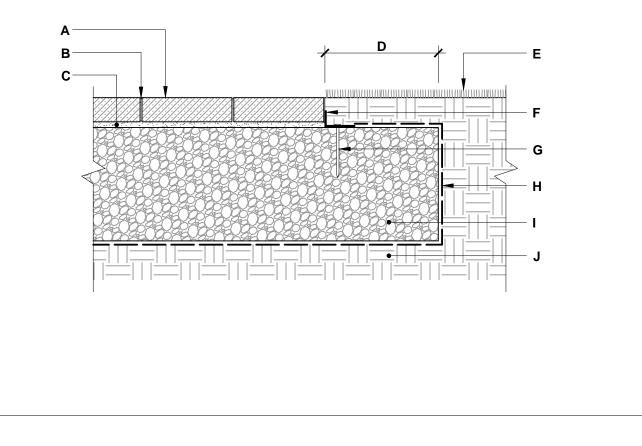
MANUFACTURER PRODUCT DATA



*WATER IS TO ABSORB THROUGH THE AGGREGATE IN **OPENINGS, NOT THE PAVERS THEMSELVES** *PAVER SYSTEM IS NOT INCLUDED IN THE **STORMWATER RUNOFF CALCULATIONS**

TECHO—BLOC

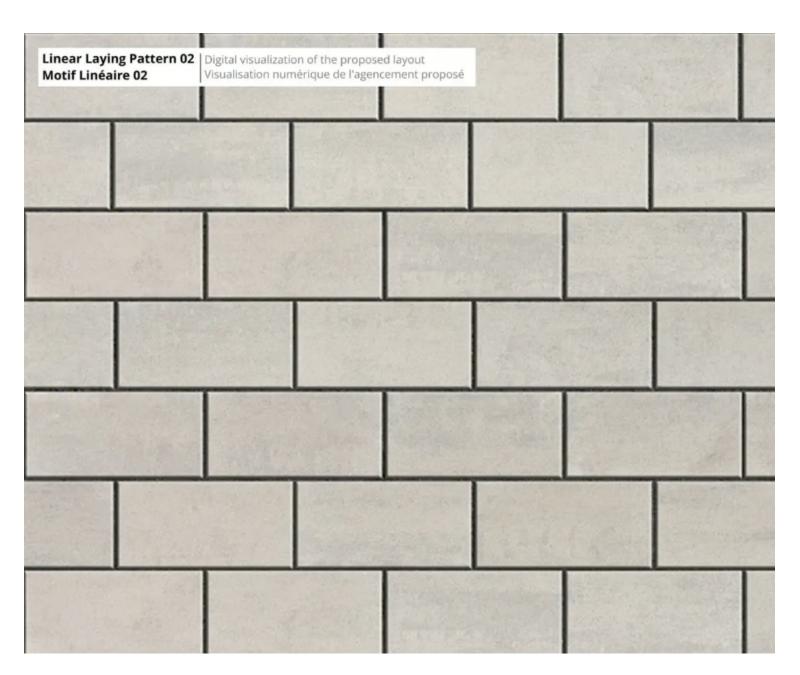
PAVERS GRANULAR BASE

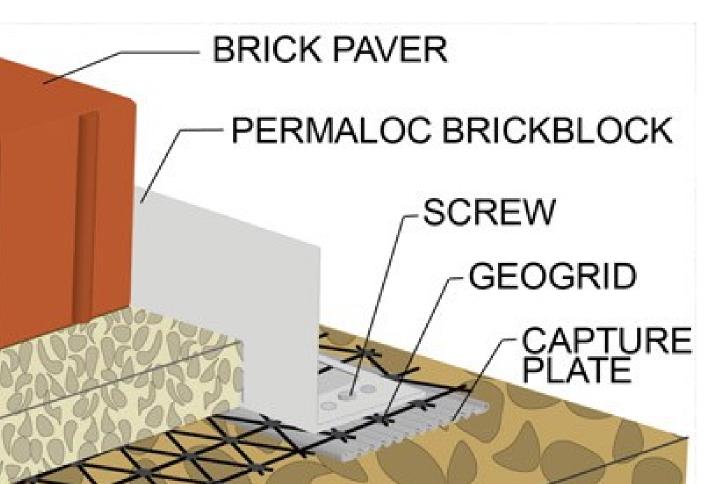


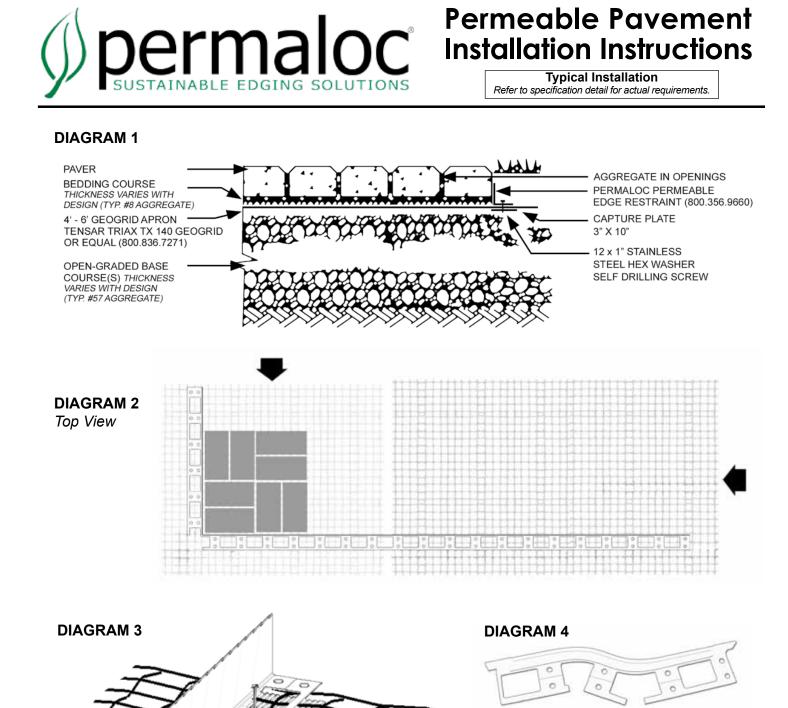
- A. TECHO-BLOC PRECAST CONCRETE PAVER 2 \% " (60 mm) THICK MIN.
- B. SAND JOINT FILL C. SAND SETTING BED (CONCRETE SAND) 1" (25 mm)
- D. EXTRA WIDTH EQUAL TO FOUNDATION THICKNESS E. LAWN
- F. ALUMINIUM / STEEL / PLASTIC EDGE RESTRAIN
- G. NAIL H. GEOTEXTILE
- I. COMPACTED GRANULAR BASE 0-3/4" (0-20 mm)
- J. SUBGRADE

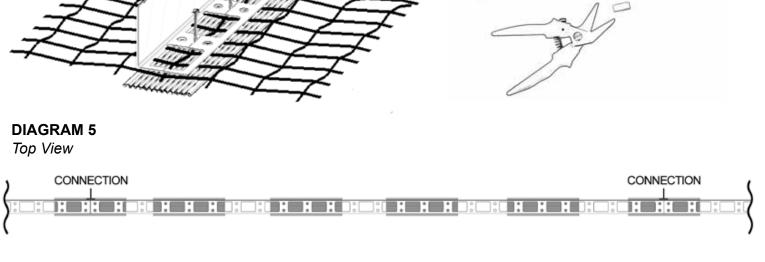
CADDETAILS_EDGE-PLASTIC 02/2020 www.techo-bloc.com

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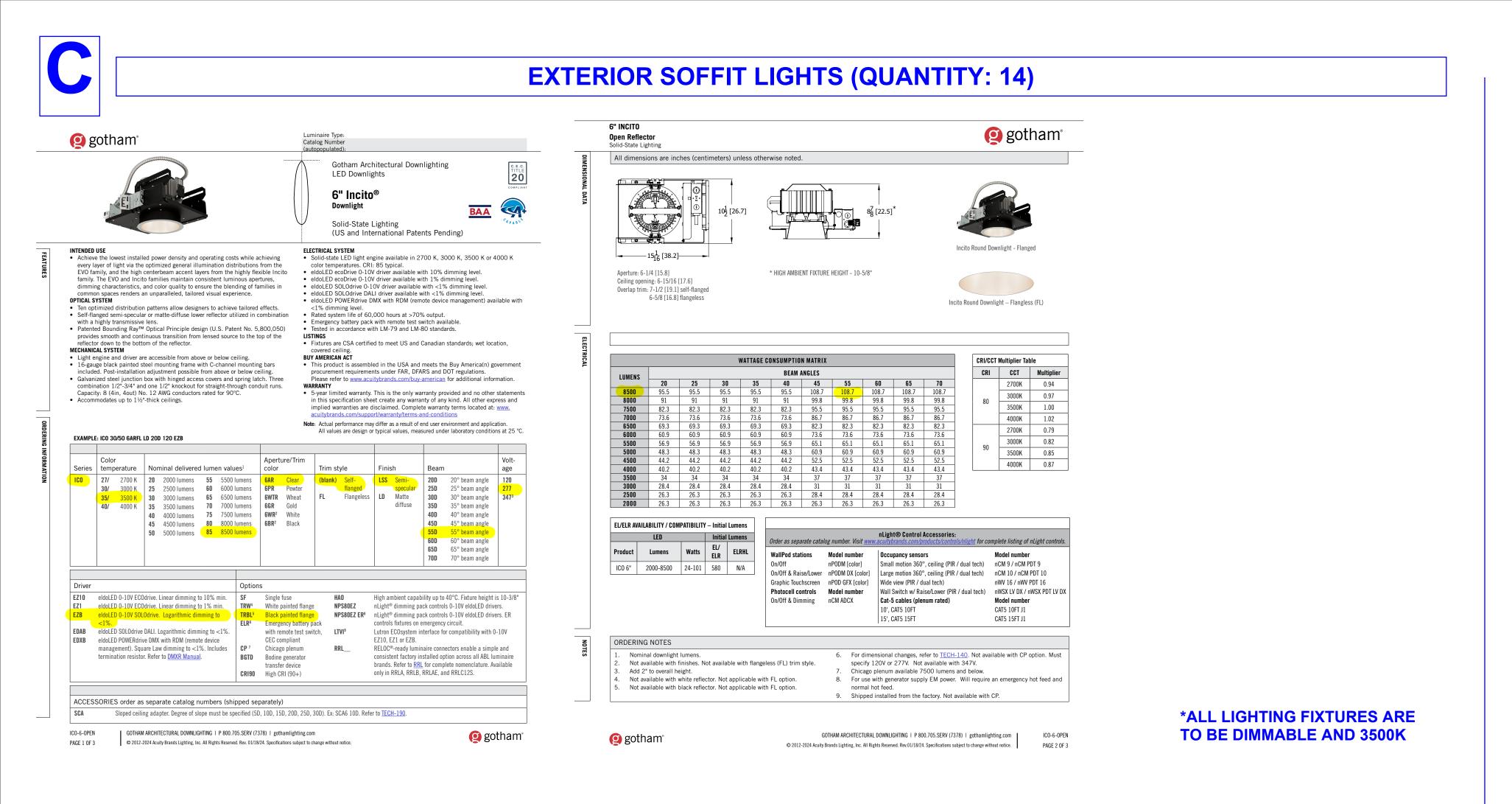








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SCALE: